Authors

Nandini Gandhi lives in and works from Vadodara. She is trained in visual communication, aesthetics and art criticism. Gandhi is keenly interested in cultural history and has researched and developed the storyline for a 30,000 square feet mural at Kankaria Lake in Ahmedabad that depicts the history of Gujarat. When completed, this would be the largest mural in the world. She has also authored *Song of Life*, a book telling the story of an art project for the Torrent Research Centre, Vadodara. Writing has always been a parallel track she has followed from the start of her career. Gandhi has worked on several commissioned art projects with designer, and her life partner, Amitabh Gandhi.

Bhairavi Parekh was born in Nairobi, grew up in London and now lives in Mumbai. She works with the British Council as a consultant in the areas of language and education, and has been an examiner with the IB (International Baccalaureate) for several years. Hachette India published her first novel, *The Water Catchers*, in 2013. Parekh enjoys all kinds of cross-cultural exchanges and the quirkiness and good-natured humour that results from it, an interest she shares with her family.

Co-ordinator

Aruna Lakhani is a development professional with 50 years of field experience. She is associated with hospitals and NGOs in a voluntary capacity, significantly contributing to their growth. She has a special knack for bringing out stories in depth by talking to people. When she commits to do something, she pushes and persists all the way to complete the task; one could call her a perfectionist to a fault. She has been passionately involved in the creation of a senior housing facility in Vadodara with amenities and services that cater to the needs of seniors. This ambitious project, Everest Dignity, is a reality today and the first of its kind in the city.

"Brilliant and captivating account of the 'magic' that keeps three generations of Shroffs together through 75 years. Their commonality of perceptions and continuity within discontinuity is innovatively captured through highly appealing short stories. What comes through very distinctly is the 'living' out of the context of 'People before Profits'."

—Dr Anand Patkar
Management consultant and
author of *Master the Mind Monkey*

"Excellent reading! The secret of how 'sharing' and 'caring' but with 'daring' can create a strong value system—the foundation for ever-growing, profitable national enterprise".

—Pilloo Aga
Veteran of rubber industry and
Director of Gold Seal Group of Companies

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we made our own kites

Nandini Gandhi • Bhairavi Parekh

Stories to Celebrate 75 Years of Excel Industries Limited

we made our own kites

a journey of pathfinders, innovators and dreamers

Nandini Gandhi • Bhairavi Parekh

HOW THE STORIES EMERGED

Every Saturday, the small Hanuman temple located on a busy road in Vadodara is thronged by devotees who announce their entry with a loud clang of the bell. The shrine has grown from a humble roadside shrine to a hub of faith…but on any other day of the week the shrine wears a deserted look. There is no priest and just a few devotees except on Saturdays.

Why do hordes of Lord Hanuman's devotees pay their obeisance only on Saturdays? The answer lies in a story. Saturday is special because Lord Hanuman rescued Shani Dev, the Lord of Saturday, from Ravana, the demon king of Lanka.

This set us thinking.

When we were approached by Excel to write a book about their 75-year-old history, we thought we would do it the storyteller's way. We would weave the history through anecdotes from varied sources: from the promoters, the employees, family members, their consultants, contractors, suppliers, neighbours and the larger community.

As we engaged with more and more people, we realized the stories were as much about the people who told them as they were about Excel. We were listeners of people before we became narrators, as the stories awakened and took form through voices, exclamations and anecdotes, to reveal how the core spirit of Excel, built the edifice, it is today. The stories travelled to Excel's roots and returned, bearing an understanding of its larger purpose, of why it exists and why Excelites do things the way they do. Overall they demonstrated values in action, shone the beam on concerns, applauded the silent heroes, spoke about the winds of change, of transformations and finally about envisioned futures. In the process of working on this book, we made the joyous discovery that the pursuit of profit and the bonds of humanity, can go hand in hand.

There was a rule we wrote for ourselves. As much as the stories were meant to be part of a collective chronicle, the chunk of the stories should also work well as independent narratives of 5- to 10-minute reads. We hope we have largely succeeded in this.

Excel made this exploration generously transparent for us, keeping the doors open to people, places, events. If you are interested in legacies—about surviving profitably and responsibly with all the concomitant struggles and excitement—then this is your story too.

we made our own kites

Nandini Gandhi • Bhairavi Parekh

EXCEL

we made our own kites

We made our own kites

The Joy of Togetherness

Environment is Family

Playing in the Lap of Nature

As our economy
undergoes incredible changes,
so does the environment.
How does all of this affect us?

Respect for nature's bounty is a trait Bhatias have imbibed from their motherland, Kutch. Resource maximisation and recycling have been an integral part of Excel's DNA.

Togetherness begins
with the self, a harmony
that encompasses the
entire living world, the local
and global community, the plants,
trees, animals, birds, insects,
microorganisms and microbes, sun,
water, wind, stars…
the entire cosmos.

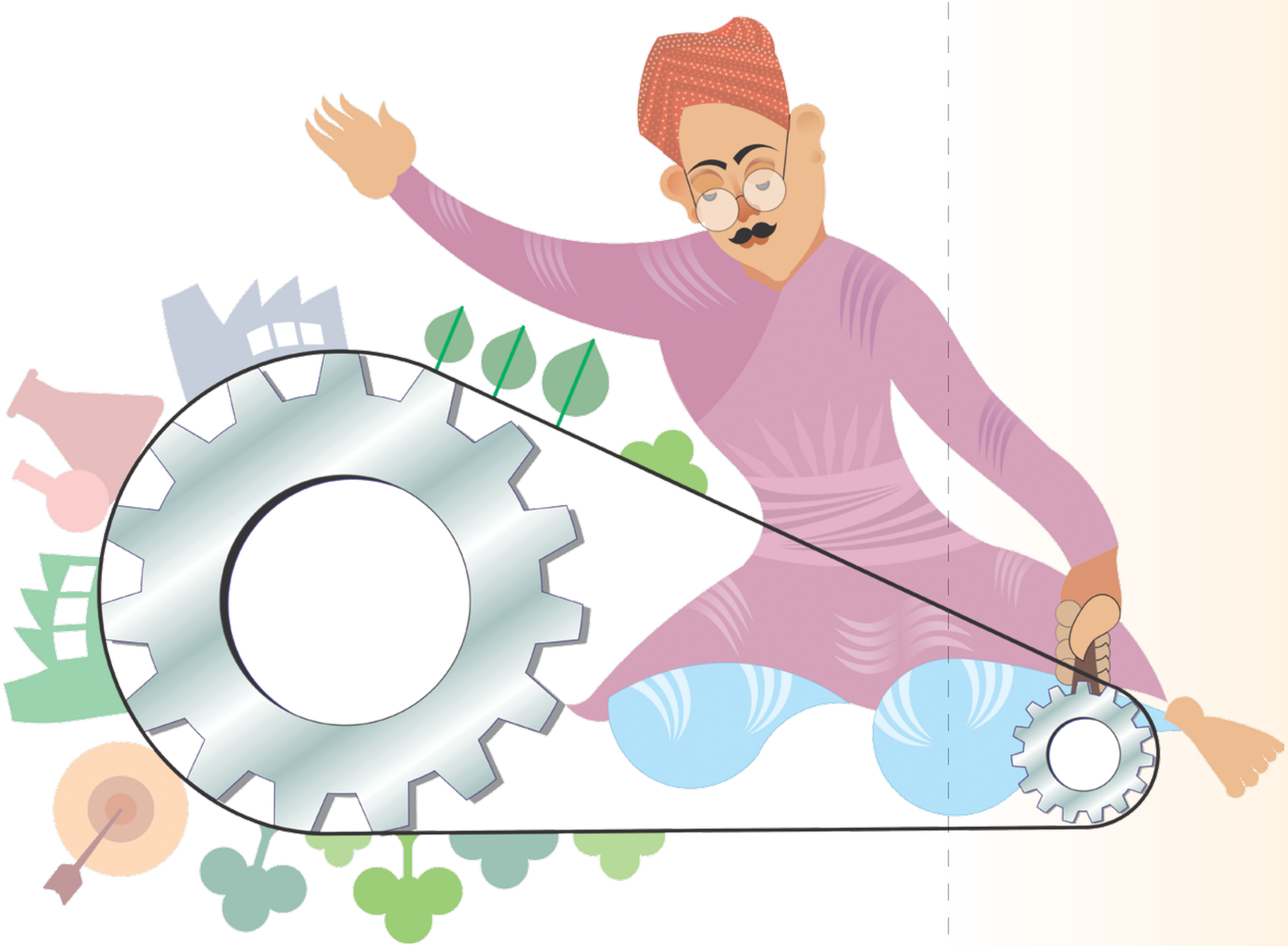
We made our own kites

a journey of pathfinders, innovators and dreamers

Stories to Celebrate
75 Years of
Excel Industries Limited

Nandini Gandhi
Bhairavi Parekh

EXCEL



Indigenisation of processes is Excel's forte, a trait inspired by Gandhiji's call for swadeshi and economic self-reliance.

Preamble

"We Made Our Own Kites"

"Go ahead and have fun flying your kites,
but make them yourself!"

Father of Excel's founder generation,
Bhabha's dictum stemmed from his strong belief
that life was a do-it-yourself (DIY) project.

Of course, there is no infallible DIY kit,
except the conviction that this is the path winners must tread,
rooting oneself firmly in one's strength, in order to fly high.

The title of this book is inspired by this 'do-it-yourself' spirit
instilled in us by Bhabha.

First published in India in 2019

For private circulation only

Design: Artunderground, Paulomi Shah, Amitabh Gandhi and Nandini Gandhi

Design Assistance: Ramchandra Patel

Illustrations: Sudhakar Jadhav

Infographics: Amitabh Gandhi and Arjun Mackwana

Editorial management: Maya Gandhi and Bipin Jha

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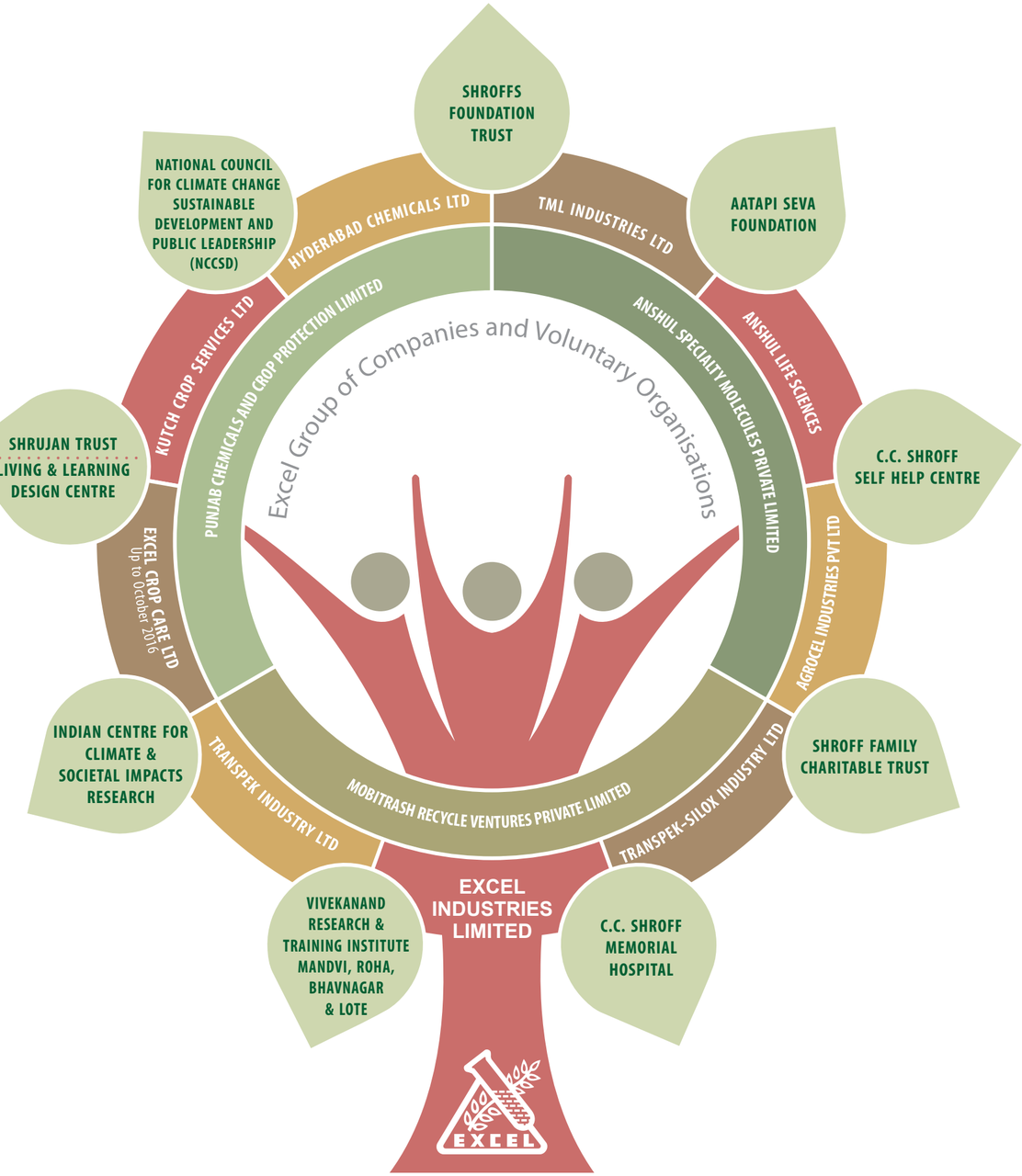
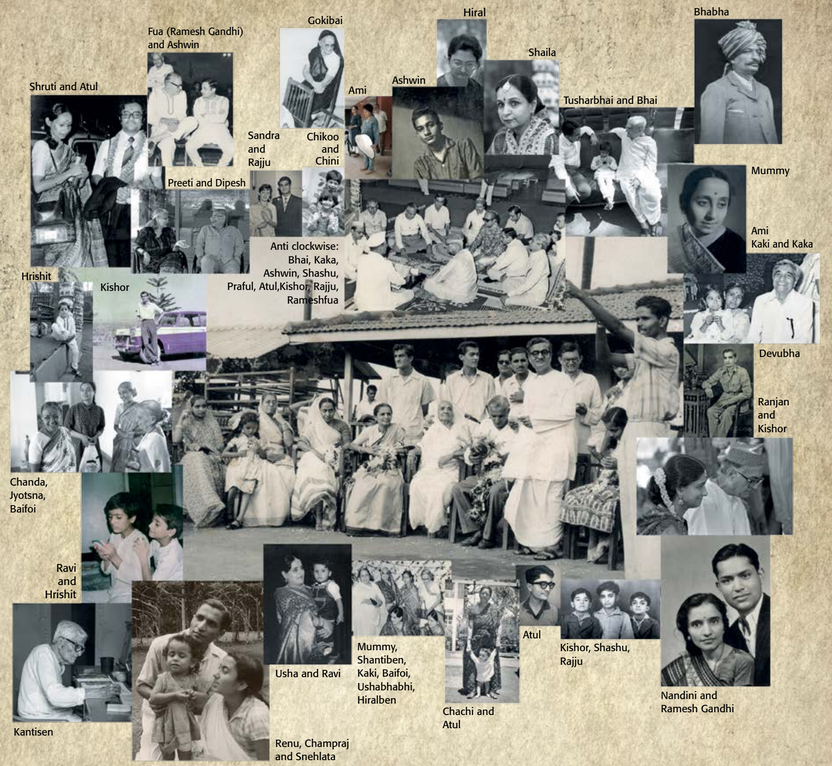
The illustrations in this book deploy metaphors of anthropomorphised characters from the animal kingdom, like the Panchatantra, and cultural and historical symbols to bring alive central concepts of the stories with a dash of humour.

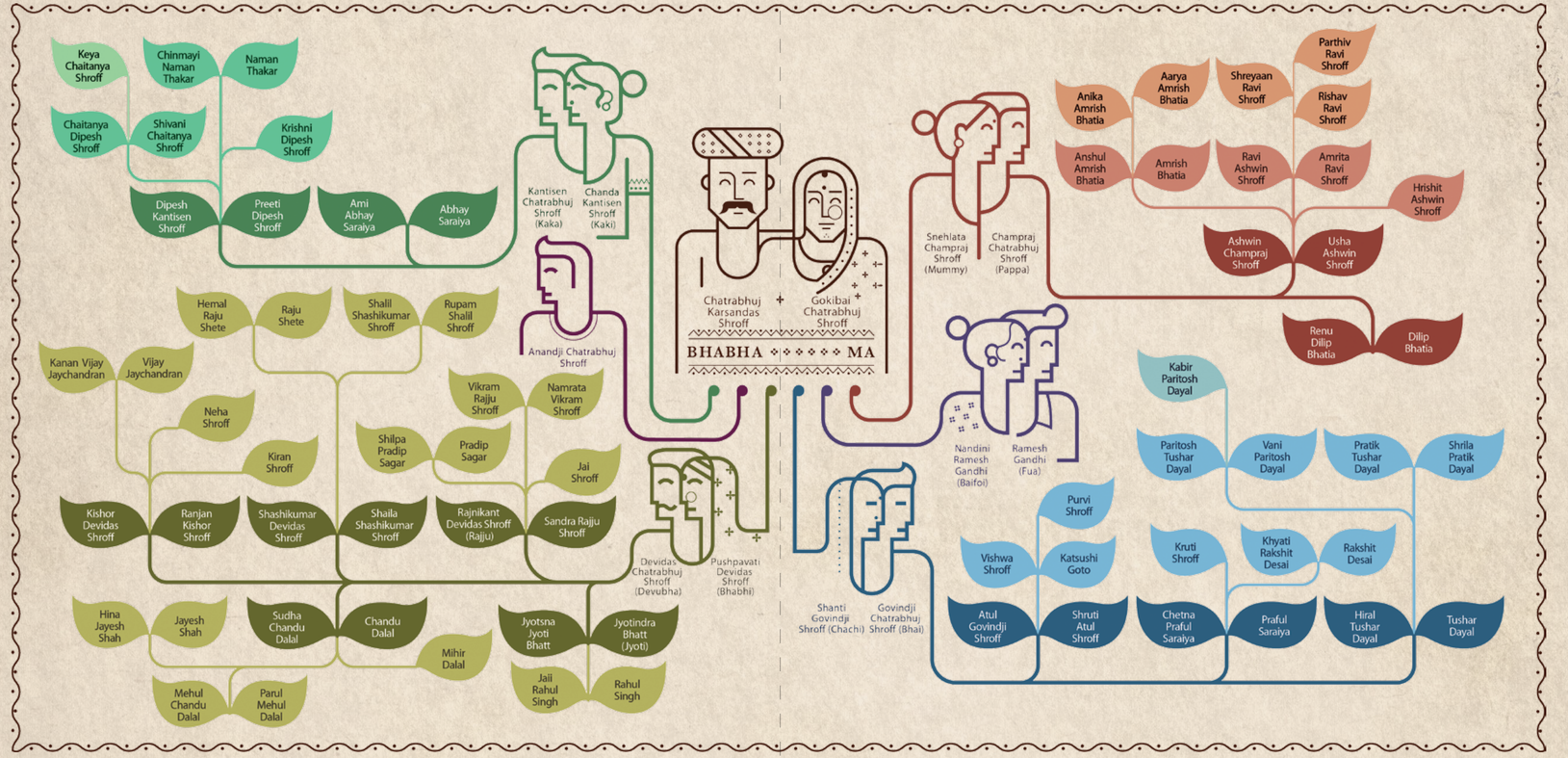




Centre image: Jogeshwari, mid-sixties

Centre Photograph: left to right, front row: Shailabhabhi, Chachi (Shanti) with young Chetuben, Mummy (Snehlata), Baifoi (Nandini), Ma (Gokibai), Pappa (Champraj Shroff the founder); Standing: Bhai (Govindji), young Renuben, Factory Worker; Standing Back Row: Rajjubhai, Kishorbhai, Shashubhai (with dark glasses) and two other old-timers

The Growing Legacy



Milestones in the Journey for Excellence

1941 — Jogeshwari, Mumbai

Birth of Excel at Jogeshwari, suburb of Mumbai, in rented buffalo shed.

1940–50 — Mumbai

Period of establishment and rapid development of chemical products. Dabbled in businesses like crackers, plastics, toy-making.

First product—Zinc Chloride, import substitute chemical using waste raw material containing zinc from brass industry.

Period of stabilisation, develops core competence in handling the very hazardous chemical Chlorine, available cheaply and abundantly. Several metal chlorides developed—Iron, Copper, Aluminium, Titanium, Mercury.

Inorganic mercury salts (Chlorides, Oxides, etc.) made with cost-effective innovative equipment and processes. When export was banned, a factory set up in heart of London, UK, to manufacture the product.

1955 — Mumbai

Excel enters field of agrochemicals.

ICI & Bayer approach Excel to formulate mercury-based agro-chemicals. Copper, with known fungicidal properties, used for making different chemicals—both agricultural and industrial.

Phosphoric acid leads to Excel's first product based on elemental Phosphorus, lays foundation for a series of Phosphorus derivatives.

1960 — Mumbai

Excel Industries incorporated under Companies Act 1956.

Excel registered as a Private Limited Company on 5th September.

1963 — Mumbai

Purchase of Goregaon (Excel estate) and Amboli land for factory. Amboli factory established.

1963 — Mumbai

Excel supplies Cupric Chloride, a critical catalyst for Stanvac refinery, Mumbai, in record time of four days, saves closure of the refinery. Charges price at par with Stanvac's import price, adhering to the ethic of fair price. "Industry and business do not thrive on profit alone. They need goodwill to grow."

Oxalic acid developed based on the abundant renewable raw material—sugar available in India.

1964 — Mumbai

In June, Excel becomes a deemed Public Limited Company, with Tatas and Fisons of UK taking shares.

Excel becomes the first recipient of Sir PC. Ray award conferred by Indian Chemical Manufacturers Association (ICMA).

1967 — Mumbai

Excel becomes the first company in India and second in world to make Aluminium Phosphide, an important grain fumigant.

1968 — Mumbai

Founder C.C. Shroff passes away. Govindji Shroff takes over as CMD and Kantisen Shroff as Jt. MD.

Excel receives Bronze shield for import substitution.

Excel develops indigenous technology to manufacture Monochloroacetic acid.

1969 — India; Bhujodi, Kutch; Mandvi, Kutch; Surat

Excel becomes first company in India to manufacture Malathion, a pesticide for mosquito control, as part of Malaria Eradication Programme of GOI.

Two voluntary organisations set up by Shroff family in Kutch – Shrujan, a not-for-profit organisation working with craftswomen in Kutch to revitalise the ancient craft of hand embroidery.

Vivekanand Research and Training Institute (VRTI) to help with recurrent drought problems.

Excel conducts relief work in Surat floods.

1970 — Bhavnagar, Gujarat

Excel establishes first factory outside Mumbai—at Bhavnagar to manufacture elemental Phosphorus, a critical raw material, imported till then.

1971 — Mumbai

Excel issues equity shares to public and becomes a listed company on BSE. Issue managed by in-house experts and heavily over-subscribed.

1975 — Roha, Maharashtra

Excel's Roha factory in Maharashtra, fourth plant and largest till date, established in record 100 days. First product PCI3. Atul Shroff in-charge of the project.

First company to make E-DTCL and M-DTCL.

Ashwin Shroff and A.B. Zaveri appointed as whole-time Directors.

1977 — Andhra Pradesh

Tidal waves strike in coastal Andhra Pradesh. Relief work through VRTI.

1978 — Bhavnagar, Gujarat

First in Asia and second in world to manufacture Endosulfan.

1979 — Morbi, Gujarat

Excel and VRTI carry out relief and rehabilitation work during Morbi floods, the worst floods to hit the area till date.

1983 — Roha / Global; India; Mumbai

Excel installs plant to manufacture Glyphosate, a weedicide. Excel second company in the world to make the product.

Environmentalist of the Year Award to Kantisen Shroff by Chemtech Foundation.

Darbari Seth elected as Chairman, Govindji Shroff as MD, Kantisen Shroff as Jt. MD.

1984 — Lote, Maharashtra; Asia, India; Bhavnagar, Gujarat; Vadodara, Gujarat

Lote factory established in Ratnagiri district, Maharashtra.

First in Asia to manufacture Butene Diol, an important raw material of Endosulfan, with an innovative new process at Bhavnagar.

ICMA bestows Sir PC. Ray Award for indigenous technology to Excel.

Atul Shroff shifts to Vadodara to head Transpek Industry. Dipesh Shroff joins the board of Excel.

1985 — Mumbai

Govindji Shroff retires, Kantisen takes over as MD, Darbari Seth, Chairman, Ashwin Shroff and Ashwin Zaveri, Jt. MD.

1989 — Mumbai

Excel inducts G. Narayana as Director on its Board.

1990 — India

Sir P.C. Ray Award for development of indigenous technology to manufacture Butene Diol.

Excel starts major activities and projects on Solid Waste Composting.

1991 — Mumbai

Excel completes golden jubilee as a successful chemical company, with several awards for quality and innovation, with new-age plants online, stable and growing fast.

1992 — India; Mumbai; India; Kutch, Gujarat

Excel receives Jamnalal Bajaj Uchit Vyavahar Puraskar for Fair Trade Practices.

Codex range of products introduced by Excel.

Excel receives Corporate Performance Award from *The Economic Times*–Harvard Business School (ET–HBS)

VRTI receives FICCI Award for Rural Development

1993–95 — Latur, Maharashtra

Relief work post Latur earthquake, one of the deadliest earthquakes in Maharashtra. Adopts two villages for complete rehabilitation.

1994–95 — Bhavnagar, Gujarat

Major expansion for production of Butene Diol.

Company entered new business areas like micro-irrigation systems, seeds, biofertilisers.

1995 — India; Mumbai; Bhavnagar; Surat, Gujarat

Man of the Year award to Kantisen Shroff by *The Week* Magazine.

Ashwin Shroff becomes MD.

Excel becomes first Indian agrochemical company to obtain ISO 9002 certification from BIS for Bhavnagar unit.

Relief work during Surat plague.

Mid-90s — India

Excel adopts holistic solutions combining chemicals with natural and biotechnology-based products under IPM, INM, ICM concepts to address concerns about use of chemicals in agriculture and food. Offers several products along with farmer education.

1996 — India; Vadodara

First to manufacture Codex 551 (water treatment chemical) in India.

Govindji Shroff passes away at Vadodara.

1997 — Mumbai

Exit of Tata as shareholders, after 33 years of partnership.

Dipesh Shroff becomes Executive Director.

1998 — Kandla, Kutch

Relief and rehabilitation work in Kandla cyclone that ravaged Kutch and killed over 10,000 people.

1999 — Mumbai; Orissa

Kantisen Shroff becomes Vice Chairman, Ashwin Shroff becomes MD and Dipesh Shroff becomes Executive Director.

Relief operations in Orissa cyclone that wiped away several villages, killing almost 4000 people.

2000 — India; Mumbai; Gujarat

Award of Excellence to Kantisen Shroff by the Indian Environmental Association.

Kantisen Shroff becomes Chairman, G. Narayana, Executive Vice Chairman, Ashwin Shroff, MD, Dipesh Shroff, Jt. MD

Corporate Governance Award by Hon'ble Governor of Gujarat.

2000 — Ahmedabad

Establishment of Municipal Solid Waste Treatment plant at Ahmedabad to process 300 MT of garbage to compost. Several similar plants established in other Indian cities using Excel's process.

2000 — Mumbai; Global

Excel develops a co-catalyst for a major polyolefins producer and goes on to become a major supplier of this co-catalyst to the polyolefins producer (PEER-RELD).

Website www.excelind.com launched.

2001 — India; Mumbai; Kutch, Gujarat; Lote, Maharashtra; Bhavnagar, Global

Special Award from CHEMEXCIL for outstanding Export Performance, 2001.

Kantisen Shroff steps down to become Chairman Emeritus, G. Narayana becomes Executive Chairman

Major relief, rehabilitation and reconstruction work in Kutch earthquake. The earthquake killed more than 20,000 and left 166,000 injured in Gujarat state. 21 out of 25 districts in the state were totally destroyed and Kutch was the worst affected district, followed by Ahmedabad, Jamnagar, Rajkot and Surendranagar.

A new plant started for Specialty Polymer additive (THPE) at Lote for a US company, meeting their stringent requirements in quality and EHS standards.

A new mining chemical reagent based on Phosphorus (SPA) developed by Excel to fulfill the vacuum created by sudden closure of a MNC, making Excel the only global supplier.

2002–04 — Mumbai; Roha, Maharashtra

Period of major changes.

Major fire at corporate head office.

Closure of all manufacturing in Mumbai (Amboli & Jogeshwari).

Major VRS, 750-850 employees in Mumbai were given VRS with post-VRS counselling and help.

Sale of Amboli factory site.

Demerger of Excel into two entities, Excel Industries Limited and Excel Crop Care Limited (ECCL), the latter to focus on agrochemicals. Nufarm of Australia joins as shareholder in ECCL.

Roha site receives ISO 14001 Certificate (Environmental Management Certification).

2003 — India; Mumbai; Mumbai, Lote, Roha

Herbozyme, a biological plant growth enhancer through multi-stage microbial fermentation, launched to enable farmers to increase farm productivity.

Dipesh Shroff resigned as Jt. MD of Excel to become MD of Excel Crop Care Limited.

Manufacturing Excellence Programme (MEP), a step towards world-class management, introduced as new and major management initiative post demerger. Several other programmes like KRAs, goal-setting, Kaizen & & 5S, lean manufacturing,in-house newsletters, sports and extra-curricular activities introduced.

2004 — Mumbai; Global; Roha, Maharashtra; India; Lote, Maharashtra; Chennai, Andaman and Nicobar Islands

Developed Organic Waste Convertor Machine. Moving from centralized solution to decentralized solution for converting waste to compost.

Excel receives Spirit at Work Award by Association for Spirit at Work from Zurich.

Roha unit wins National Award for Energy Conservation in Chemicals sector from Ministry of Power, Government of India, as also from Maharashtra Energy Development Agency, Government of Maharashtra.

ICMA Award for Excellence in HSE for the year 2003–04.

Safety Award by National Safety Council for the year 2003.

Relief operations after the 2004 tsunami at Chennai and Andaman and Nicobar Islands.

2005 — India; India; Lote, Maharashtra; Roha, Maharashtra; India

Phoscel and Azacel launched.

Kantisen Shroff felicitated by Hon'ble President of India Dr. Abdul Kalam for leadership and visionary work in rural development.

Ashwin Shroff becomes Chairman & MD, Usha Shroff becomes Vice Chairperson.

National Safety Award by Ministry of Labour, GoI, to Lote-Parshuram plant.

Energy Conservation Award by Maharashtra Energy Development Agency to Roha plant.

Supplier Excellence Award by Bayer Crop Science for the year 2004.

2006 — Roha, Maharashtra; Global

Roha obtains OHSMS (Occupational Health & Safety Management System) certification.

Chanda Shroff receives Rolex Award for Social Enterprise, becoming the first Indian to receive this award for her pioneering efforts in Kutch through Shrujan.

2006 — Roha, Maharashtra; India

Energy Conservation Award by Maharashtra Energy Conservation Award... to Roha plant.

Receives Excellence in Energy Conservation Award by Indian Chemical Council.

2007 — Roha, Maharashtra; India

Oil-fired boilers replaced by coal-fired boilers for cost reduction.

Enterprise Resource Planning (ERP) System introduced, an important new tool for managerial productivity and transparency.

2008 — Mumbai; India; Mandvi, Kutch

Excel Bio Resources Limited established as a 100% subsidiary to give shape to environment and green and renewable resource based businesses.

Supreme Supplier Award from Bayer Crop Science for the year 2007.

VRTI receives National Award for Empowering Sustainable Development for the year 2007 by Central Ground Water Board, Ministry of Water Resources, GoI, for the pioneering and continuing work on groundwater recharge.

2009 — India

Excellence in Energy Conservation Award by Indian Chemical Council.

2010 — Mauritius; Roha, Maharashtra

Environment and Biotech Division of Excel provides technological know-how and Project Management Consultancy services for setting up a 350 TPD capacity solid waste processing plant to a Mauritius-based company.

Excel Roha wins six prizes in state-level fire drill competition.

2011 — Mumbai; Vadodara, Gujarat; Kutch, India

Kantisen Shroff receives Lifetime Achievement Award by CHEMEXCIL.

Birth centenary year of Govindji Shroff. Several programmes and publications launched. Hon'ble CM of Gujarat, Narendra Modi, graces the occasion.

Earth Care Award for Social Impact to VRTI.

2012 — India; Mumbai; India; Lote, Maharashtra

Ashwin Shroff conferred Lifetime Achievement Award by Indian Chemical Council (ICC).

ICC Award for Social Responsibility.

Excel gets permission to use Responsible Care (RC) logo by ICC. RC logo reflects self-regulated chemical companies following stringent 'Responsible Care' standards.

Inauguration of pharma facility at Lote for production of advanced pharma intermediates and APIs

2014–15 — Mumbai

Ravi Shroff becomes Executive Director.

2015 — Pune, Maharashtra

MobiTrash Recycle Ventures Pvt. Ltd. established. Services commence in Pune. Unique business model to treat household garbage at the doorstep with Organic Waste Converter loaded in the mobile van.

2016 — Mumbai; Lote, Maharashtra

Excel Crop Care sold to Sumitomo Chemicals.

Obtained WHO, GMP certificate for Active Pharmaceutical Ingredients, bulk drugs for Lote Parshuram site.

2017 — Mumbai

Hrishit Shroff joins as President, ENBT Business and Corporate Services.

2018 — Mandvi, Kutch

The Earth Care Award to VRTI fo Rukmavati River Basin Management Initiative.

Ashwin Shroff receives Lifetime Achievement Award from CHEMEXCIL.

In this book

Foreword

"What do we need, really?" mused Champraj Shroff as he pondered setting up a mercuric chloride plant in England. At the time, Excel Industries had no experience of building, much less operating, any type of factory outside Maharashtra. But times must change. In 1956, the Indian government banned the export of the chemical. It was one of Excel's key product offerings, and a healthy export had developed, mainly to the UK.

In a daring move, Champraj built a mercuric chloride factory where the market was, entrusting the UK production to an unlettered Adivasi manager. By reducing the manufacturing process to a few simple, inexpensive steps, Excel matched the competitive prices of the local English players. After three years of successful production, Champraj sold the plant to a buyer that agreed to pay royalty for 10 years. To know how he did what he did, dear reader, I am tempted to tell you the page numbers. But I will not.

The story is a classic example of Shroff, and Kutchi Bhatia, entrepreneurship. The community, like many others, trickled to the port of Bombay from the mid-18th century onwards. British power was on the ascent, opening up opportunities for trade. The first member of the Excel family to leave Kutch was Karsandas Kalyani Shroff, who arrived in Bombay at the turn of the 19th century. A fortune in cotton trading was earned in the run-up to and during World War I, but the family was badly hit in the crash of the 1920s. World War II saw the business family rise again, after Excel Industries was launched in 1941 by Champraj (1909–68), Karsandas's grandson.

This book is as much about the "family" in family business as a book on family business. The distinction is important, and this book is important for its contribution to our understanding of a much-understudied relationship. Libraries and laptops are full of stories and histories of companies. We turn to a different shelf and space when we want to read biographies and autobiographies. I take the liberty of misquoting Winston Churchill here. The family in family business remains a "riddle wrapped in a mystery inside an enigma" for management gurus and business schools, particularly Western ones, who seem to remain tied to Alfred Chandler.

As generational transitions take place, questions and concerns about which parts of the legacies should be retained, which ones modified, and which ones abandoned confront each generation. The succeeding generation of Shroffs seems to have adapted themselves to the changing needs of the business as well as the society.

Through the stories told by Ashwin, the current Chairman, and members of the Shroff family, we come to understand the symbiotic microprocesses that bind the family to the enterprise and the enterprise to the family, such that both grow or diminish together. Ravi Shroff, Ashwin's eldest son and current executive director, is actively associated with the FBN (Family Business Network), an international organisation devoted to the study of family-managed businesses. He derives wisdom and knowledge not only from his own family but from members of other family-owned business houses.

We also hear the voices of managers and other employees irrespective of their hierarchy. One of them describes the relationship between family owners and hired hands thus: "Excel valued our worth, they launched us like kites straight off the ground, on a strong, long line, without worrying about our qualifications. The challenges and Excel's confidence in us provided the gust of encouragement to enable us to climb high in the sky… They tugged at our strings from time to time with new opportunities and experiences, and always kept us airborne."

We Made Our Own Kites is important also for the rich descriptions of its culture. Management guru Peter Drucker allegedly said that "culture eats strategy for breakfast". Here we see how a strong organisational culture is built through storytelling: past events, good and bad, are distributed through generations of the family and, most importantly, spill over into the minds, attitudes and behaviours of managers, specialists and workers. There are jointly shared descriptions of the organisation; the sum of values and rituals which serve as 'glue' to integrate the members of the organisation; and frank discussions of the right and wrong way of doing things. Together, they form the organisation's immune system.

One must remember that Excel Industries grew during some of India's most traumatic years. After World War II came Partition, four wars with Pakistan (1947, 1965, 1971, 1999), and one with China (1962). The oil crisis of 1973 coincided with an effective rate of personal income tax at the top slab of 97.5 per cent. The quarter century during 1991–2016 saw a debilitating foreign-exchange crisis (1991 balance-of-payments crisis followed by an IMF bailout and a falling rupee); unstable governments and coalition politics (six Lok Sabha elections, 13 changes in finance ministers); increasing tensions with our neighbours (attack on Parliament 2001; Mumbai bomb blasts 2003, 2006 and 2008; Chinese border disputes); religious tensions (Ayodhya 1992); and a string of natural disasters (Latur earthquake 1993, Odisha super cyclone 1999, Gujarat earthquake 2001, Indian Ocean tsunami 2004, Uttarakhand floods 2013, droughts in several states) to name just a few.

Despite functioning in such adversarial conditions, Excel kept growing, building a highly successful business with grit, determination and values. Every family member—male and female, young and old—contributed in his/her unique way, nurturing the business to where it is today. Without fanfare.

It is said that the spirit of service is a great passport to affection and respect. In *We Made Our Own Kites*, you will read how this spirit springs from a vivid appreciation of the intense need in India for a service with a heart in the pursuit of wealth, business and economic growth.

Gita Piramal

Oxford, August 2017

"Art washes away from the soul the dust of everyday life."

Preface

Dear Reader,

It gives me immense pleasure and satisfaction to present to you this book, *We Made Our Own Kites*, commemorating the completion of 75 years of our company, Excel Industries Limited.

This is a story about grit and determination, about dreams and togetherness, about service and relevance. This is a story about young Champraj Shroff, who wanted to experiment, research, produce… all for the benefit of others. It is a story about creating a legacy and establishing a trail for many to follow.

He invited his brothers Govindji, Kantisen and Devidas, and their families to join the young company. Their joint family, living under one roof, soon extended to Excel, becoming a larger joint family.

This is a story about the journey that spans over decades, commencing in the pre-Independence era and continuing to this day, in the backdrop of the fast-paced techno-savvy era. This is a story about being firmly entrenched in values and ethics, treating them as goal posts, for existence and operations. This is a story about purpose and principles, about people and practices, about policies and problem-solving, about progress achieved in the true spirit of *ahimsa*.

This is a story essentially about togetherness, about *sahaviryam*, in its true spirit… where not just the employees but everyone associated with Excel—customers, distributors, suppliers, farmers, employees' families, the associated community—are all a part of this vast "Excel Family". This is a story about creating a family among strangers and believing and practising *Vasudhaiv Kutumbkam*, the world is but one family, in its true essence.

I, along with my brothers Atulbhai (Atul Govindji Shroff, Managing Director of Transpek Industry Limited) and Dipeshbhai (Dipesh Kantisen Shroff, Managing Director of Excel Crop Care Limited till 7 October 2017) am fortunate and feel privileged to inherit this rich legacy—of the vision, the mission, the beliefs and practices, and the thoughts and ideologies of our elders—that we have been carrying forward with the blessings, guidance and support of our elders, our families, our extended families and our colleagues of 75 years from the Excel Group and our voluntary organisations. And we are happy and proud to see our children—Ravi (Ravi Ashwin Shroff), Hrishit (Hrishit Ashwin Shroff) and Chaitanya (Chaitanya Dipesh Shroff)—carrying this legacy with them with just as much excitement and earnestness as I and my brothers have done. From Gen-II to Gen-III, the dedication has only grown.

With the company crossing the milestone of 75 years, I felt the need to share the story of Excel, its genesis and its life journey beyond the earlier story written for its 50th year.

The important objective was to share: share with my readers how the company evolved among so many constraints and kept its core value system intact; how it chose to be relevant to the needs of the times, rather than merely doing business; how it believed in creating wealth that would establish a sustainability model and create positive ripples in the times to come, rather than merely making money.

At Excel, it is all about the movement from dispensing with social responsibility to being socially responsible. Excel has always sought to be a positive influence on every community that it has touched. We have strived towards improving the quality of life of the people within the company as well as in the neighbourhood/community, for peace, health and prosperity through integrated sustainable development.

We have always believed in the motto: "Building Villages is Developing our Nation". Going beyond the call of CSR, we consider our community and environment-related initiatives as simply a part of our corporate mission, a part of our DNA and the culture of the entire Shroff Group of Companies.

But what remains the essence of Excel is a commitment to society through continuous advancement in chemistry, science and business, inspiring and motivating us in all our endeavours.

At this juncture, I thank all my colleagues—past and present—for their valuable contribution in building and sustaining this iconic company: a 75-year-young "legend" relentlessly reinventing itself, raring to advance and always in the making.

I would like to thank the team of writers—Nandiniben, Bhairaviben and Arunaben—for depicting the character and the spirit of Excel in a beautiful storytelling format. The stories fold and unfold in a captivating and absorbing manner, bringing to life the key elements of each narrative as well as the era and the personalities involved.

I would like to thank the team of young and enthusiastic photographers—Sachin and Ritvika—who have captured the narratives through their lens. The design team, Amitabh, Paulomi, Sudhakar and Ramchandra have breathed life into the stories with a vibrant and readable presentation. A special thanks to Mr Bipin Shah of Mapin for helping to finally print the book that is in your hands.

My heartfelt thanks to all people who were a part of this storytelling process: my family, my current and ex-colleagues, colleagues from group organisations, people from the community, and many others.

It is an honour for us that Dr Gita Piramal—industry insider and noted business historian, author of *Business Maharajas* and *Business Legends*—agreed to write the Foreword for this book.

Finally, a special thanks to Ms Maya Gandhi and Mr Bipin Jha, who have been part of this initiative from the start. Their contribution, creative inputs and valuable assistance are highly appreciated. Maya facilitated the meetings with storytellers from Roha, Lote, Kutch and Mumbai. She diligently went through the text to ensure factual authenticity, developed content for many of the stories as well as those on the family members and painstakingly went through piles of old photographs to add to the richness of the book. I thank her for her commitment and effort in the development of this book.

Ashwin Shroff
Chairman and Managing Director
Excel Industries Limited

Painting the Period

World events and national events surrounding Excel's birth have had a deep impact on Excel's choice of products, employment strategy and business culture... World War II, struggle for India's independence, pangs of a developing economy. Excel has responded to internal and external challenges with a firm commitment to its beliefs.

If a company had feelings, what a delight it would be for it to reach the remarkable age of 75! For Excel to arrive at this landmark in full health—through pivotal changes in the country's milieu, the see-sawing growth of the industry, and the adjustments made by the family running the company—is truly celebratory.

It also speaks of something much bigger than the sum of its parts; something that runs as a uniting cord along which events of the company are pegged: the culture of the company. Very simply put, a company's culture is a reflection on how they do things. And sometimes, astonishing stories are born, which are passed down like heirlooms to future generations of the family and employees.

For Excel Industries Ltd, heroes and stories are alive in people's conversations today. As we explore the events that led up to the birth of the company (and beyond), we begin to see the culture that has developed over the years.

Inspirations and Influences

that shaped Excel's
- **choice of business**
- **methods of creating assets and facilities**
- **commercial practices**
- **people practices – be it employees, business associates, government agencies or surrounding communities**

Bordering the Sea
Proximity to the sea opened ways for sea trade

Travel by Sea
The community fearlessly travelled and settled in the Middle East and Africa, opening newer possibilities of trade

Kutch, Gujarat

Harsh Geography
The harsh geography and climate presented the inhabitants with meagre resources

The Birth Place

Travel via Land
The community's outward-looking perspective let them confidently migrate to various parts of the Indian subcontinent and establish trade

Sense of Community
Despite the difficult geography and limited resources, the community was fearless, hard-working, honest, progressive and entrepreneurial

Way of living derived from ancient scriptures

Community living from Indus Valley Civilisation

Way of Living
India's history, civilisation, ancient wisdom, all contributed to the community's way of living

Spiritual values derived from religion

Respect for the elements of nature

Practical religion inspired by Swami Vivekananda

Agriculture
Understanding India's dependency on agriculture and various cattle rearing based occupations, the community always contributed towards its improvement.

EXCEL
Excel Industries Limited

Inspirations and influences that shaped the thinking, values and practices of the Shroff family and led to the birth of Excel Industries

Innovation and Self-reliance
The community strived to be innovative and self-reliant

Teachings of Vinobha Bhave
Trusteeship in business and self-managed rural communities

Principle of Self-reliance
The 'Swadeshi Movement' started by Mahatma Gandhi was sincerely upheld and practiced

Traditional Arts & Crafts
The rich tradition and knowledge in the field of arts and crafts was carried on, nurtured and further developed

Gandhiji's Principles
Decentralisation of solutions and economic independence propagated by Mahatma Gandhi paved way for innovation

Sharing Prosperity
The community earned well and lived well but the prosperity was generously shared. They always gave back to the world and strived to shower prosperity among the weak

"Miles to go before my pot is filled." The fragility of natural resources is deeply ingrained in the Kutchi psyche.

The community spirit is alive in the bylanes of Mandvi.

The areas of Kutch and Saurashtra in Gujarat have always borne the brunt of earthquakes and successive droughts and famines, which have left the land devastated. This has frequently forced the native population to migrate in search of pastures and sustenance. But the Kutchi spirit always prevails, and Kutch has, like the proverbial phoenix, risen from the ashes each time.

One such earthquake in 1819 greatly affected the agricultural activity and the economy of Kutch, and a lookout for other sources of occupation impelled many Bhatias of Kutch to travel beyond the borders to earn a living. Many travelled to East Africa, to present-day Tanzania and to the Middle East. Others reached the shores of Bombay, which was emerging as a commercial hub, with communities of Parsees, Gujarati Jain Banias and, later, Kutchi Bhatias making inroads into industry, largely the textile industry.

Entrepreneurial by temperament, the Bhatias chose to start their own business and industries. At the same time, Kutchi Bhatias had absorbed the values of thrift, and its concomitant avoidance of waste, from their motherland's arduous struggles. This ingenious yet pragmatic utilisation of available resources is at the heart of Excel's success in the development of indigenous manufacturing processes that contributed to independent India's growing economic self-reliance.

Bhabha, Chatrabhuj Shroff and Gokibai, or Ma as she was affectionately known, decided that though Africa was a possibility, Bombay was the right place to provide both exposure and opportunities to their growing family.

Chatrabhuj Shroff had lived and studied in Bombay, attending the well-known Bharda High School, studying French as a second language. He already knew Sanskrit, which for him was a language alive in the Bhagavad Gita. He used to say that the Gita is not only to be recited, but its principles are to be lived by. By the age of 20, he was already involved in the social activities of the Bhatia community and the public life of Bombay. He had also established himself in the cotton business.

Economic Autonomy and Swadeshi

The textile industry in India faced pressures after the enforcement of the Factory Act of 1894. Industrialists protested against the excise duty imposed by the British government on the production of textile goods in India. The Indian National Congress, founded in 1885, provided a platform to these increasingly strident voices. In 1905, the 'Banga Bhanga' partition of Bengal into East and West Bengal by Lord Curzon spurred further agitation by stalwarts such as Bipin Chandra Pal, Lala Lajpat Rai and Bal Gangadhar Tilak. The battle cry of swadeshi took deeper root with Swami Dayanand's call for Swaraj. Economic autonomy was the goal and became the impetus for the spirit of entrepreneurship, with the Kirloskars, the Tatas and others setting up newer types of industry to ensure that India gained self-reliance. Significantly, chemical companies began their entry, mostly concentrated in Bengal. Alembic Chemical Works, established in 1907, was the only one of four chemical companies in India with its registered office in Baroda in western India.

Chatrabhuj Shroff, the scion of the Shroff family.

Ingenious yet pragmatic utilisation of resources is a trait Kutchi Bhatias imbibed from their motherland.

During this boiling political cauldron Chatrabhuj Shroff's close friend, Dharamsi Morarji, set up the Dharamsi Morarji Chemical Co. Ltd in 1917. Chatrabhuj Shroff, however, had a dream to start a chemical factory. He saw that the way forward was not to criticise the British, but to emulate their skills while treating everyone with respect. He told Ma that they would educate their children, who would later execute their dreams.

Champraj, their son born in 1909, was the one destined to begin the fulfilment of this dream, with constant support from his mother. Gokibai played a significant role in shaping the human culture of Excel based on the concept of *sahaviryam*, the common good. She looked after the Excel team, workers and officers by ensuring that they were well-nourished and cared for in times of sickness. The brothers imbibed this tradition. Eating together, workers, managers and owners alike is a tradition that continues at Excel.

The freedom struggle gained momentum with World War II and Gandhiji's growing popularity. The birth of Excel in 1941 coincided with the rise of nationalism. These events shaped the Excel culture and choice of products and technology.

Shouldering Family Responsibilities

During World War I, between 1914 and 1918, there was an economic upturn. The war had impacted the flow of imports into India, and this gave a fillip to indigenously made goods. Textile industries were making good profits and traders began to take greater risks. With great foresight, Chatrabhuj Shroff saw that this situation was untenable. He sold his cotton business and moved back to Kutch with his family.

Vignettes of the Independence era.

His prudence was justified. Unfortunately, during the depression that started in 1929, his brother fell victim to the downturn caused partly by a major crisis in America, and his complacence quickly eroded by the changing circumstances. His losses added up, and he died of a heart attack.

Chatrabhuj Shroff felt deeply the responsibility of his brother's debt and repaid it, the sale of Ma's jewellery forming part of the repayment. As a result of this sudden shrinking of their finances, while Champraj completed his education, two of his brothers—Devubha and Govindji—had to drop out of college, Devubha getting a job with a French pharma company and Govindji joining a trader with the stock market. Their sister, Nandiniben, joined a medical college, while Kantisen joined an art school.

Champraj Shroff went on to study at the Elphinstone College and later graduated from the Royal Institute of Science, Mumbai. He then joined Swastik Oil Mills, working closely with Dr. Vitca to learn chemical processes from the beginning to the end. Along with his later job with Eastern Chemicals, he began experimenting with chemicals in his kitchen at home, including the making of trinitrotoluene (TNT) and trinitrophenol, both explosive materials. He was ready to supply these to Indian freedom fighters.

A Nation Agitating for Self-Rule

"We have the morning breeze, flowers, and the dew;
So why should we go elsewhere to beg for the spring?" *Abdul Ahad Saaz*

These lines seem to sum up the deep resentment people felt being under the foreign rule, when the entire nation was ready for self-rule.

They say that art imitates life. While Indians in general were adjusting to the changes that were happening in India, the Indian cinema scenario too reflected the urgent desire for freedom from the British. By the 1940s, even advertisements reflected the nationalistic spirit of the decade.

The battle cry of swadeshi fuelled Champraj with a larger purpose—economic autonomy through the indigenous manufacture of chemicals.

Excel's buffalo shed: our early office-cum-abode.

Gandhiji, who had returned from South Africa in 1915, continued to lead nationwide campaigns for various issues plaguing the nation, but his thrust around the 1930s was predominantly towards achieving Swaraj or self-rule. His satyagraha—insistence on truth, non-violent agitation—was in full cry when World War II broke out in 1939.

World War II and the Birth of Excel

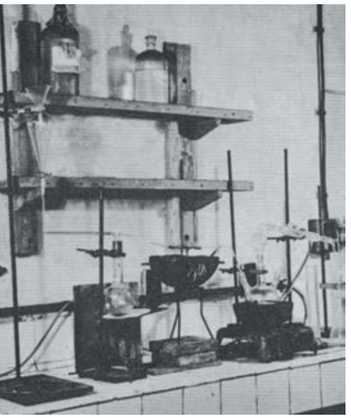
It was clear that chemicals would be needed during the war years. Vadgadi in Mumbai was the centre for chemicals, and the Bohris there, who were engaged in silver refining, saw Champraj's potential and offered their partnership to start manufacturing chemicals.

Excel Industries was thus registered in 1941, on the Bohris' land in Andheri, with Rs. 8,500 from them and Rs. 1,500 from the jewellery pledged by Champraj's wife, Snehlata. It was founded by Champraj Shroff, also known as C.C., in the year of the passing of Chatrabhuj Shroff, his father, after the outbreak of World War II. The chemical industry that was still nascent in India received a boost during World War II, which lasted from 1939 to 1945.

That year fulfilled Chatrabhuj Shroff's dream of his family entering the chemical business and subsequently proving that Indians were equal to the developed world in the manufacture of speciality and hazardous chemicals.

The choice of going into the speciality chemical business was met with reservation from Champraj Shroff's friends and well-wishers. If it had to be chemicals, his friends suggested, why not manufacture dyes for the textile industry? The textile industry was booming. It was the logical, profitable course to take. C.C., however, had always enjoyed experimenting with chemical formulations, even in his youth. He doggedly chose the less trodden path. His larger purpose was to develop indigenous processes for the manufacture of chemicals that were urgently needed by our developing economy. This would move

Amboli site, where many nationally important processes were mastered.



Homegrown R&D was integral to Excel's DNA.

India towards greater economic self-sufficiency. Since its inception in 1941, Excel Industries Limited has been recognised as a pioneer in the area of crop protection chemicals for the industry as well as the farming community.

As for hiring people, C.C. did not limit himself to qualifications and degrees. He had the natural ability to unearth talent, to find the extraordinary in the seemingly ordinary. This ability became part of the company culture, where freedom to experiment and team play became opportunities for employees to perform and grow.

Around this time, when indigenous products were experiencing greater demand, the British were facing the heat of World War II as well as India's unrelenting clamour for Independence.

In 1942 came the Quit India Movement. Protesting Indians frequently ended up in jail, as did the Shroff family members, including the ladies Nandiniben and Shantiben. Champraj Shroff supplied the explosive—TNT—to rebels supporting the Quit India Movement.

Within the fledgling company, frugality was of the essence. Excel's founder acquired raw materials from the waste of other industries to make his first products, including Zinc Chloride. Later, Excel bought the small piece of land in a buffalo shed in Jogeshwari that they were earlier using on rent.

One of Excel's products—'Zinc dust'—was rejected by ICI. It was unexpected, and the troubled Bohri partners exited the partnership. A brief partnership with Popatlal Shah, a chemical trader, then began. C.C. was not one to give up. The team continued working on Zinc dust, which was successfully improved upon and finally purchased by ICI. With the enhanced cash flow, Excel produced more. The company made Lead Acetate in 15 days, and Stearic Acid for Government of India's Department of Defence. By this time, in 1943, Kantisen Shroff had joined Excel to support his elder brother.

The government acknowledged Excel as a responsible and honest company. While favourable government tailwinds allowed Excel to buy lead at reasonable prices, the company returned whatever was not required. This led to increased credibility in the eyes of the government. Orders started to trickle in.

In 1945, younger brother Govindji Shroff came in to help with the business end of production.

From its inception, ongoing innovation had led to the creation of new products and processes in Excel. Waste film rolls were recycled for Silver Nitrate and Celluloid. Plastics dominated business activity and plastic processing was the bread and butter. Chlorine-based compounds were made, because Chlorine was cheaply and abundantly available. C.C.'s elder brother Devidas Shroff's experience in marketing helped.

1951: A Turning Point for Excel

"At the stroke of the midnight hour, when the world sleeps,
India will awake to life and freedom." *Pandit Jawaharlal Nehru*

The end of World War II in 1945 brought the urgent expectation of complete independence from the Crown. The victory came, and in 1947, the Indian Tricolour fluttered all over the country. It was a traumatically 'partitioned' victory, with the land being divided into India and Pakistan. Nonetheless, it was a time of euphoria, introspection and the celebration of the Indian flavour.

Prime Minister Nehru drew up plans for large scale dams and infrastructure projects to build the new nation. At the time, he was largely dependent on foreign help.

1951: The journey to Europe that changed Excel's destiny. Champraj and Kantisen came back with ideas for simple adaptation of processes at Excel.

In 1950–51, C.C. accepted ICI's invitation to tour Europe. On this trip with younger brother Kantisen, he bought the longer versions of the BIOS and CIOS reports, which Kantisen read with deep interest. The trip was a meaningful eye-opener to new ways of working. As they travelled, they visualised simple adaptations of these methods that could be applied indigenously and within Excel in particular.

Consequently, 1951 became a turning point in Excel's history. Their toy factory, which had catapulted to success during those three to four years from 1948 to 1951, was closed. The trip to Europe had opened up a whole new exciting world of creativity and innovation in the manufacture of chemicals, which was waiting to be explored, and the space at Excel was needed for this.

It was one among the many steps towards creating and demonstrating confidence in the technical capability of Indians in sophisticated chemistry and technologies. It was part of a larger movement within India towards successful indigenisation of products, for which Excel was, in part, a trailblazer.

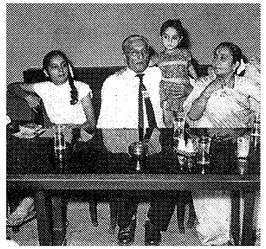
Simple Processes: Excel's Forte

"All suffering prepares the soul for vision." *Martin Buber*

In 1956, the Government of India banned the export of mercury salts, which were in great demand in the UK. This impacted Excel's production. In a daring move, Champraj Shroff set up the factory in the UK, entrusting the production to an unlettered Adivasi boy Manchhu Warli, who was initially accompanied by Rajnikant, or Rajju Shroff, and Champraj Shroff's talented daughter, Renu, a scientist herself. By reducing the process to a few simple, inexpensive steps, they were able to match UK's competitive prices. After three years of successful production, he sold the plant to a buyer that agreed to pay royalties for 10 years.

The years 1960–61 saw a 50–50 partnership between Excel and Tata Fisons, a Tata Group Company with British partners.

From 1950 to 1980, India was trying to set up a socialistic pattern of society, based on equality. The Nehruvian era sought government role in all economic activity. Every economic activity thus had to be



Champraj with son Ashwin (in arms), daughter Renu (left) and wife Snehlata (right).

regulated, and Indian industry struggled with the suffocating red tape of this Licence Raj, which required licences at almost every stage. This situation gave rise to corrupt practices. Excel remained firm in its commitment not to derail its ethical values, and strived to acquire licences in a morally acceptable way. This attitude enhanced its reputation.

In 1963, Excel established another site at Amboli, a suburb of Mumbai.

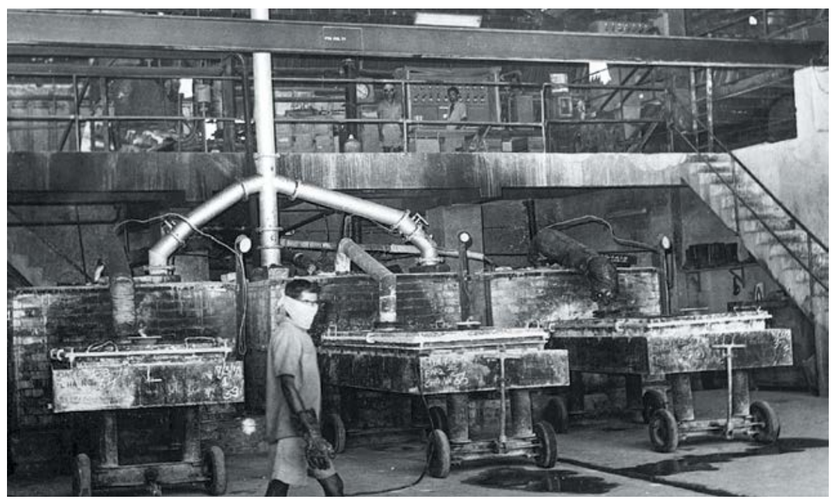
In 1964, Renu tragically passed away. Though deeply affected by his dear daughter's death, Champraj Shroff transformed his suffering into a positive energy and strived to use science for the good of the people as Renu deeply desired.

"From small beginnings come great things."

In 1964, Excel received the first of its many subsequent awards—the Acharya P.C. Ray Award—from the Indian Chemical Manufacturers Association, for developing products and processes on indigenous know-how.

Small industrial units were the answer to India's development. Excel's forte was in developing quick, simple processes and constructing flexible plants, so much so that their ability to produce difficult and diverse chemicals took foreigners by surprise.

'If something can be—or has been—done elsewhere in the world, surely it can be done in India as well!' C.C. Shroff's conviction.



The Phosphorus Pentasulphide plant at Amboli.

From 1964 to 1967, Excel's sales grew from Rs. 50 lakh to Rs. 2 crore. Aluminium Phosphide was then made only in Germany. Excel took up the challenge of making it themselves.

Transpek Industry Ltd was formed as a separate Excel Group company in 1965 to make transparent plastic sheets at Baroda. Again, waste was used to make acrylic sheets.

The Legend Passes Away but the Spirit Blossoms

It was in Amboli, in January 1968, that Champraj Shroff tragically passed away after suffering a cardiac arrest. He was still 'in harness', succumbing while he was monitoring the tableting machine for the production of Celphos.

The void created by his passing was unfathomable, and came at a time when the in-house availability of Phosphorus had become critical. So, the daring step of putting up a Phosphorus plant had to be taken.

Govindji Shroff took over as Chairman and Managing Director. Govindji and Kantisen together took the bold decision to launch the third factory at Bhavnagar to produce Phosphorus. Ten times bigger than anything built by Excel in the past, it required substantial funds. A public issue in 1971 brought in Rs. 50 lakh and India's first indigenous Phosphorus plant was commissioned. Employees included leprosy patients, nomadic tribesmen and *khalasi*s. While Kantisen focused on Bhavnagar, Champraj's son Ashwin, together with Govindji Shroff's son Atul, looked after the Bombay units of Jogeshwari and Amboli.

The seventies and eighties were periods of expansion for Excel.

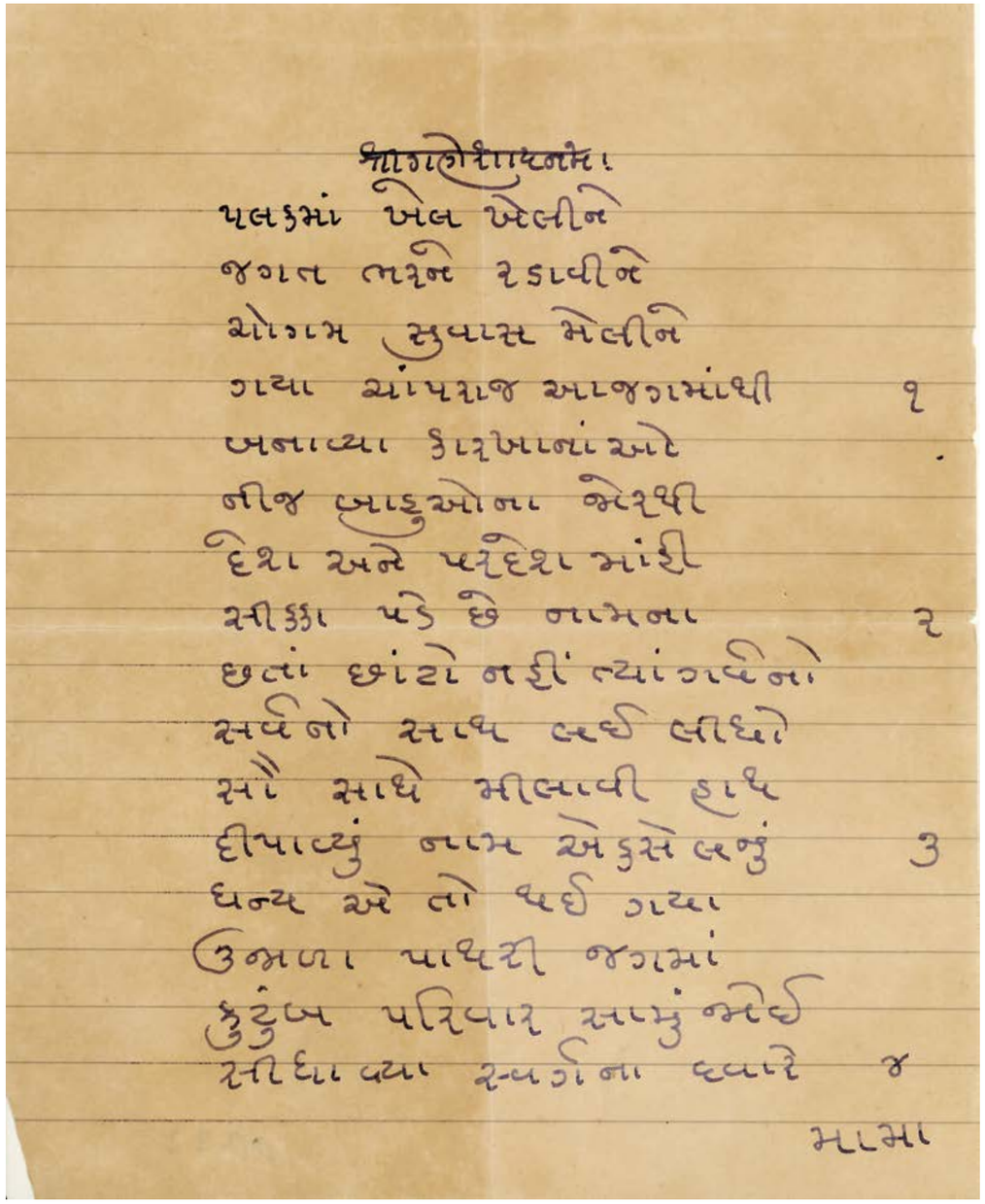
In 1969–70, Excel was awarded the first ever gold shield for import substitution, for developing indigenous know-how for the manufacture of Methyl Bromide, Aluminium Chloride, Phosphorus Pentasulphide and Aluminium Phosphide, by the Board of Awards for Import Substitution, GoI. The shield was awarded by the President of India.

In 1972–73, there was a split in the family, due to differences in working styles and values. The partition was amicable and family relations were maintained.

In 1975, the fourth chemical factory was put up at Roha, in Raigad district, producing Aluminium Chloride, Wettable Sulphur, Glyphosates and Phosphorus Trichloride. Atul Shroff took charge of this site.

The moment of pride: Usha, Kantisen and Ashwin Shroff holding Excel's first gold shield for import substitution, for developing indigenous know-how, 1967–1970.

'We can do it, and in the right way!' Kantisen, Govindji and Ashwin Shroff.



શ્રદ્ધાંજલિ

પલકમાં ખેલ ખેલીને
જગત તમને રડાવીને
રોગમ સુવાસ મેલીને
ગયા ચંપરાજ આજગમાંથી ૧

બનાવ્યા કિરણોનાં ઝાડે
નીજ ઝાડુઓના જેરથી
દેશ અને પરદેશ માંથી
સીકકા પડે છે નામના ૨

છતાં છાંટો નહીં ત્યાં ગર્વનો
સર્વનો સાથ લઈ લીધો
સૌ સાથે મીલાવી હાથ
દીપાવ્યું નામ એકસેલનું ૩

ધન્ય એ તો થઈ ગયા
ઉજળા પાથરી જગમાં
કુટુંબ પરિવાર સાથું મેળે
સીધાવ્યા સ્વર્ગના દ્વારે ૪

મામા

Shraddhanjali by Nagin Mama, a renowned homeopath and maternal uncle of Ashwin Shroff, on passing away of Champraj Shroff.

This was followed in 1984 by another factory at Lote Parshuram in Maharashtra. Dipesh Shroff was actively involved in establishing this factory.

During these years, a joint venture with Punjab State Industrial Development Corporation came up near Chandigarh for a Malathion plant. This was called Punjab Chemicals and Pesticides Ltd (now called Punjab Chemicals and Crop Protection Ltd).

Growing with Social Responsibility

"Overcoming poverty is not a task of charity; it is an act of justice." *Nelson Mandela*

Meanwhile, from 1967 onwards, the Shroff family looked beyond the horizons of their family and industry to address the needs of society. Often, droughts and natural calamities were a starting point for developmental interventions. They also began to work with communities in the vicinity of their industry. The Ramakrishna Mission was their inspiration.

After the tragic death of Champraj Shroff, Govindji Shroff, as Chairman and Managing Director, took the bold decision to launch the third factory at Bhavnagar to produce Phosphorus Pentasulphide in 1970, a plant ten times bigger than anything built by Excel in the past.

Women's empowerment, Kaki; Shrujan and VRTI: Growing with Corporate Social Responsibility.

It was during this period that Govindji Shroff met Jayaprakash Narayan and Vinoba Bhave, and was influenced by the idea of "trusteeship" propounded by them. It was based on the ideology that wealth belonged to the people, and that those who had it should treat it as if they were only custodians. As a result of Vinobaji's message for him, Kantisen frequently toured Kutch, spending much time in understanding its problems and looking for ways in which its people and economy could be coaxed into productive profitability.

His wife, Chandaben, began working in Kutch. She had started an NGO called 'Shrujan' in 1968–69 to help women skilled in embroidery earn a livelihood. She often lived with the artisans.

A panjrapole (a shelter for stray or infirm cattle) had been started by Kantisen's maternal grandfather in Mandvi. Using that as a base, he expanded his experiments on cow dung and urine. Cow dung was found to have 17 useful bacteria. Applying this dung to garbage-carrying trucks eliminated the smell, and Kantisen saw an avenue for Kutch's future in this. Celrich was born, and Excel entered the Environmental Biotechnology field.

The Vivekanand Research and Training Institute (VRTI) was formally born in 1978 in Kutch, with 17 acres of land bought with Kantisen's personal funds.

Transitions, Ends and New Beginnings

"Nothing is secure but life, transition, the energising spirit." *Ralph Waldo Emerson*

In 1986, Govindji Shroff felt the need for a change and asked Kantisen to take the helm as Excel's Chairman. Kantisen's able stewardship helped Excel tide over the difficult times.

Transitions were taking place in general in the Indian chemical industry. The Bhopal gas tragedy of 1984 brought many more regulations in its wake. Chemical companies all over the world decided voluntarily to go in for Responsible Care (RC) audits, which were stringent in terms of human and environmental safety.

With Ashwin Shroff at the helm of affairs, Excel Industries was the first Indian chemical company to sign up for RC.

1991 was a dramatic time for India, as the government announced a new economic policy to remove restrictions and open up the economy. The Licence Raj was no more; India was part of a global economy, facing increasingly stiff competition, the most severe being from China, a phenomenon that nations all over the world faced. In spite of slack periods, by the 50th year of Excel, supported by the team of employees, Kantisen had brought Excel's sales up to Rs. 275 crore. In 1995, Excel became ISO certified. The same year, Kantisen Shroff became Chairman, Ashwin Shroff became Managing Director at Excel, while Dipesh Shroff became joint MD.

As Excel expanded its reach, activities diversified.

The Shroffs Foundation Trust, officially registered in 1980, began its work in and around Transpek Industry Limited, Baroda, in 1985 and later began work in the abysmally underdeveloped tribal belt of Chhota Udepur. After the 2001 earthquake, starting with disaster relief, it expanded its activities to the Banni region of Kutch. Another cyclone in Kutch in 1999 impelled Kantisen to initiate rehabilitation plans under the Kutch Navnirman Abhiyan.

In 1994, a marine chemicals plant was set up on 10,000 acres of land in the Banni area of Kutch. Excel increased its use of solar energy, and moved further into afforestation, water and city waste management, exploring sewage as fertiliser. In 2001, plants at Amboli and Jogeshwari were closed down and Voluntary Retirement Scheme was executed.

In 2001, a major US-based producer approved Excel for the supply of a key polycarbonate additive after a rigorous audit. The following year, Excel developed a co-catalyst for a major polyolefin producer.

In 2009, Excel received an order for technology licensing and Project Management Consultancy services for setting up a 350-TPD capacity solid-waste processing plant in Mauritius.

"When you try to find answers, Life changes the questions."

With growth in industry came more regulations. Chemical companies faced the double challenge of global competition and handling a number of compliances, which came with extensive documentation.

Research and development is an ongoing process at Excel.

Working with hazardous chemicals was Excel's forte – Phosphorus to the left and Sulphur to the right.

Public interest organisations and NGOs had become increasingly active in their protests against chemicals perceived as hazardous. A case in point was the government's sudden ban on the production, distribution and use of Endosulfan in 2011, a move that shook the foundation of Excel Crop Care. But only briefly. Gen-III sprinted to launch new molecules to fill the commercial dent made by the ban, and to develop an affordable plant-protection molecule to address the vacuum in the farm space. In the four years following the ban, Excel Crop Care Ltd, a Group company, rolled out eight new molecules.

A foray into the pharma space was initiated by the newer generation. This meant investment in infrastructure and regulatory compliances. A pharma facility at Lote was inaugurated in 2012 for the production of advanced pharma intermediates and APIs, the same year that Ashwin Shroff received the Lifetime Achievement Award from ICC.

The new pharma plant at Lote.

Not just safety, but responsible care of chemicals.

In 1975, the fourth chemical factory was put up at Roha, top left, in Raigad district, followed in 1984 by another factory at Lote Parshuram, top right, in Maharashtra.

Not all of Excel's 75 years have been cloudless, and it's fair to balance the good with what is still aspired for.

Today, the third generation of the Shroff family—Ravi, Hrishit, Chaitanya—are deeply involved in the company, bringing in fresh insights from a current perspective.

New systems of accountability have been introduced without damaging the emotional connect with employees.

As with almost every industry in today's globally exposed ethos, back-up plans are being put in place to reduce vulnerability. This may be in an effort to explore a better product mix or combat competition from cheaper products by countries such as China.

The association with farmers and their access to advice from Excel continues. There is a judicious mix when it comes to crop protection methods and products, with the same vigilant concern for the environment. The use and type of pesticide needed may differ in different circumstances, and care is taken to convey this to farmers.

Ashwin Shroff received the Lifetime Achievement Award from ICC in 2012.

Ashwin Shroff receiving the Chemexcil Award in 2017.

Excel recognised very early that along with population and rising consumerism, waste disposal would become a gargantuan issue. The company's experience in grappling with this has created a bouquet of ongoing solutions today, offering city waste-to-compost possibilities as well as water and sewage treatment answers, which have been recognised by the government.

Embracing the Challenges

Why is it that circumstances and people's attitudes change, and stability is never a constant? As our sages have always observed, it is in our hands to bend those very circumstances to our benefit, because life is about recognising opportunities and then plugging away at them, refusing to admit defeat. Long gestation periods have not deterred Excel in the past, as long as the vision is clear and honest.

Excel looks greenly ahead, with its amplified use of windmills and solar energy, and the reduction, reuse and recycling of chemical and other waste, experimenting with seaweed cultivation to mitigate the impact of greenhouse gases and reducing the carbon footprint by looking at transformative processes in natural systems. This is a strength it will decisively take forward.

If you peep into the photo albums of Excel's world, you may find a black-and-white picture of C.C.—the founder in his workshop, surrounded by his rudimentary equipment and his colleagues, restlessly working on in-house fabrication. This kind of experimentation generated new products that went on to become hugely successful. Although this earlier strength of innovation within Excel saw some shrinkage, fine-tuning for quality improvements, production efficiency, optimisation of raw materials, waste reduction and greater safety are ongoing. To a great extent, the Excel family culture and the tradition of doing things in-house helps Excel retain its employees for decades. Job satisfaction and recognition of achievement are exciting extras that Excel offers. It also helps that the company's promoters have an increased involvement in operations, and that a clear succession plan is being evolved.

Telescoping all these factors into perspective, it is evident that much of global industry is facing similar situations, especially in family-run institutions.

In the life of a people-oriented company such as Excel, it is second nature to integrate the values of fairness, social enterprise, frugality and the patriotic spirit into the profitable running of a company, even if, in doing so, profits take back seat. But then, Excel doesn't compromise on its legacy of values.

"Service to others is the rent you pay for your room here on earth." *Muhammad Ali*

These words of the famous boxer, the late Muhammad Ali, seem to resonate through the history of the company, and one may not be far from the truth in calling Excel a socio-economic institution.

In the world of family-run businesses, how does one capture and encapsulate the graph of successes, failures, struggles… the entire story of a company's evolution to the present day? The real litmus test of its good name lies in what remains as its treasury of stories, the voices from each generation that keep it alive.

Here, to celebrate Excel's 75 years, is a select compilation of these stories.

Synergy of all the senior members of the Excel Group of Companies.

Under the Banyan Tree

"Like branches of a tree, we grow in different directions,
yet our roots remain as one.
Each of our lives will always be a special part of the other's."
Anon.

Strong Ties that Hold

The Legacy, the Torchbearers, and the Artist and Believers

Each generation shapes the mindset of the next one. Every birth in the family is a new door, opening up unknown promises.

In a joint family, where the lives of its members are closely intertwined, a certain richness of experience is inevitable. It lights up filial bonding, which both includes and goes beyond blood, to a shared and caring togetherness.

Equally, these bonds enrich the business streams. The family is a natural team, consolidating the strengths of individual members. Each generation sees first-hand the work it takes to win at business. People grow up imbibing the skills it takes to succeed in the business. Entrepreneurial risk-taking becomes second nature. And shared **family values** become the competitive edge. The purpose and pride in our roots is a self-propelling energy that transforms work into the labour of love and a commitment to excel.

Here, from the motherland of Kutch that bred them, is a small insight into the members of the Shroff family and the ties that hold them together.

Kutch, the Motherland

Sheer Grit and Survival

No Kutchi person would ever think of their beloved land as a beast; they are far too attached to it and to their people. Yet, no one can deny that Kutch, a large district in the western state of Gujarat, has been a hard land to survive on, beset by regularly occurring natural calamities, with large uncultivable areas. Written deep into the DNA of the Kutchi people is the sheer grit and survival instincts they had to cultivate over time to be able to eke out an existence in this harsh land.

Kutch experiences very hot summers, when rivers run dry, and equally harsh, cold winters. There is rocky, barren desert, and some green pastures in the south. Part of the Harappan civilisation, inhabited heavily by the tribal community, Kutch is a land of contrasts.

Today, the immigrants who earlier crossed this difficult terrain have settled, made their peace with the land, eked out a living and improved their circumstances. The people have their own traditions and ways of making a living, but from being cattle herders or farmers, today, 'beauty' has emerged. People have built ports, restored ancient temples and palaces, and revived traditional arts. Trade and commerce have flourished. Various communities have adopted a hard-working way of life, entering the roster of successful entrepreneurs. Prominent among them is the Bhatia community, which moved largely from farming to business. The Khataus, Thackerseys, Gokuldas, Morarjis, Karas, Kapadias, Jethas and Madhavjis are now famous names among the Bhatias. The Shroffs, too, have established themselves within this group.

The Bhatias, like other Kutchis, learned the value of hard work, frugality and making the maximum use of scarce resources. Living in hard conditions makes one self-dependent, but it also engenders the spirit of sharing—whether feelings, resources or experiences—and this brings people close together. This trait stayed with the Bhatias even after many of them migrated to Mumbai to succeed in their various enterprises.

That robust community feeling surfaced with great strength in troubled times. This was amply evidenced during all the natural disasters that Kutch faced, when earthquakes, droughts and cyclones red-marked its history. So many stories have been heard and told about individual and collective efforts that went into the rebuilding of Kutch every time a calamity struck!

The Bhatia community is known for its proactive work in rehabilitation work without waiting for outside support. Their organisational skills make for extraordinary stories of optimising resources that come flooding in at such times—money, clothing, building materials, food. Collection, sifting, distributing… everything requires logistical skills, which the Bhatias had acquired through generational habits. Within the Bhatia community, the Shroff family is also known for taking on such tasks.

Kutchis have acquired life skills from their tough motherland, and those very skills later became useful in establishing their thriving businesses.

Far above:
A street of Mandvi.

Despite the difficulties, Kutch has also been a land of aesthetic beauty. It is seen as a land of art in different spheres, including its temple or haveli construction; embroidery work—*bandhani*, *ajrakh* etc.—now revitalised by the efforts of Shrujan.

Kutchis have acquired life skills from their tough motherland, and those very skills later became useful in establishing their thriving businesses. So, when the motherland was afflicted, 'giving back' was a natural response. The aim was to build up their fellow beings on a sustainable basis, a more arduous and long-term task than philanthropy or charity. It is a task of love.

This **togetherness of its people** forms the real beauty that has emerged from the hard land of Kutch.

Bhatias have traditionally been textile and oil-mill owners, shipbuilders, traders and moneylenders. They have taken calculated risks boldly and honestly, and gained much prosperity over time. They have been generous with the wealth they acquired and have given back to society in various ways. They set up hospitals and educational institutions. Sir Vithaldas Thackersey and his wife, Premlila, set up the country's first women's university—Shreemati Nathibai Damodar Thackersey Women's University, better known as SNDT—in 1916. Many institutes have been established by the Bhatias, including Bhatia General Hospital at Tardeo, Mumbai; the Gokuldas Tejpal Hospital; and Ghatkopar's first co-ed school, Ramji Assar Vidyalaya, which was established in 1911. Moreover, community groups, such as Global Bhatia Foundation, organise events and meets to facilitate social interaction among the community members.

In the heyday of maritime trade, Mandvi was a rich and prosperous town, earning four times more revenue from export than import.

Flamingos throng the Mandvi beach.

Mandvi

In Kutch, around the mid-1890s, Mandvi was a well-developed area in terms of trade, being situated at the happy junction of two famous trade routes—the Maritime Spice Route and the Desert Camel Caravan. Gokibai, Chatrabhuj Shroff's wife, was born in Koday, in Mandvi district, in the year 1885.

Mandvi was an important port of the Jadeja Rajputs, who claim descent from Lord Krishna. During the days of sail, Mandvi prospered and was known for its superb sailors. Ocean-going merchant vessels of Mandvi travelled between Zanzibar in Africa and Calcutta in eastern India via the ports of Arabia, the Persian Gulf and the western coast of India, trading cotton, rice, salt and pottery of India for ivory, cloves and rhino hide from Africa. Even Vasco Da Gama is said to have used sailors from Mandvi to navigate the stretch from Mombasa to Zanzibar.

The Vijay Vilas Palace is an eclectic blend of architectural styles. Umbrella-domes like those seen in palaces of Bengal, cupolas that would not look out of place in Mughal buildings, jarokhas and cusp-arches like those seen in Rajput palaces of Rajasthan, Victorian Gothic arches and classical columns make up the ensemble.

The Vijay Vilas Palace.

A Legacy of Love and Thrift

Gokibai

Ma

In Gokibai, or "Ma", as she was known, motherhood went much beyond just bearing children. Apart from her six biological children, she also considered all those working in Excel—in any capacity—her children.

For Ma, religion meant service. The loss of her beloved fourth son, Anandjibhai, at the age of 35 was grievous. But Ma's balm on the deep wound was to continue his devotion to humanitarian work with the Ramkrishna Mission with even greater fervour. She chose to live at the Excel factory, where she started a kitchen, herself cooking a minimum of dal (lentils) along with offering bananas; when numbers grew, they employed a cook. Waking at 3.00 a.m. to make tea for the embarrassed but grateful Excel staff, administering medication or mending shirts for anyone she saw who needed it, was her natural response to current needs.

"I will take care of you. You take care of others," she would often say.

Around that time, an invitation came for her to go on a pilgrimage to the Jagannath Temple in Puri. She declined the invite saying, "My pilgrimage lies in feeding all my sons here at Excel. Is that not enough devotion to God?" This attitude defined her humanitarian spirit.

By working the hardest, she became a model for her family, accepting and making the most of circumstances. Her care stretched far beyond duty; love for humanity was just her way of being. She modelled the virtue of self-respect and respect for fellow beings. She kept her six children together, making sure they were never idle. They shared decisions, tasks and consequences. There are family memories and anecdotes of her apportioning piles of vegetables to each child to sort through, and thus providing a time for the family to share stories and laughter as they worked. Throughout their lives, her family experienced the joy of togetherness, or *sahaviryam*, an ideal they clearly wish to continue.

It may sound strange, but her clear sense of duty was woven very closely with today's outlook of open-mindedness. Though she was born a Vaishnav, she happily welcomed her Jain daughter-in-law into the family. She cared for a Dalit girl who, the family affectionately joked, was her sister; and she looked after a Muslim girl, a neighbour, like her daughter.

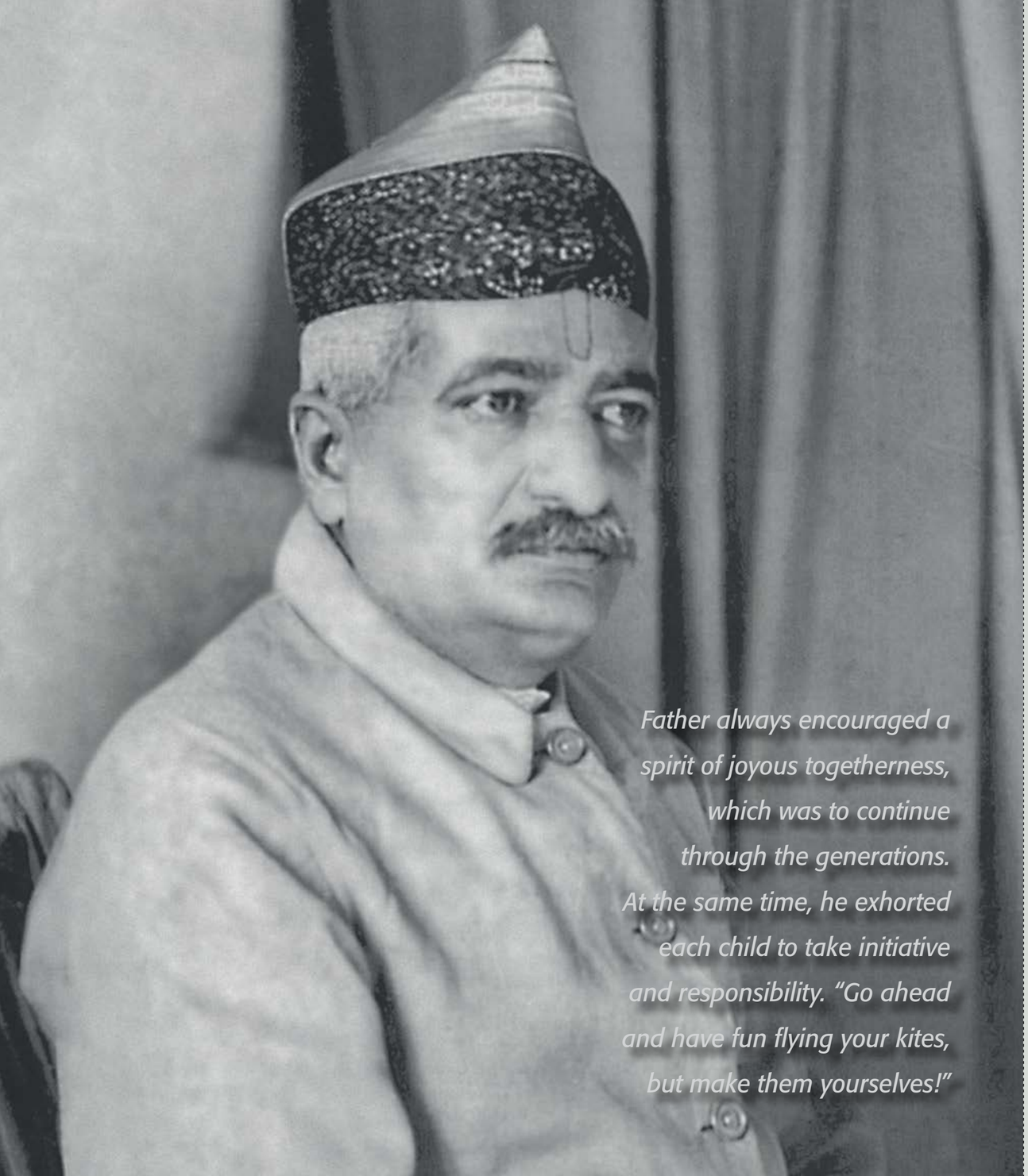
Born in Koday village in Kutch, Ma had absorbed through her Kutchi genes the significance of being frugal and not wasting **anything**. This meant fashioning fuel balls from coal dust from the factory boiler and cow dung, optimising heat by placing one vessel over the other, and even recycling cotton waste from the factory. She made it clear to the family that there would be no wastage of food, and that their plates should be clean after meals. In her daily life, she looked for ways to **eliminate waste** more than **reduce waste**, since in the latter, a cost was involved.

Right through the succeeding generations, **thrift** has remained one of the hallmarks of the Shroff family business approach. Apart from family and company costs, there is a larger purpose here that involves our planet, which is to reduce unnecessary utilisation of resources.

Togetherness, service, hard work, and minimising or recycling waste are some of the many values that Ma passed on as a precious legacy.

Ma passed away in 1968, in the same year as her second son, Champraj, the founder of Excel Industries. She was 84, he was 59.

An invitation came for her to go on a pilgrimage
to the Jagannath Temple in Puri.
She declined the invite saying,
"My pilgrimage lies in feeding all my sons here at Excel.
Is that not enough devotion to God?"
This attitude defined her humanitarian spirit.



Father always encouraged a spirit of joyous togetherness, which was to continue through the generations. At the same time, he exhorted each child to take initiative and responsibility. "Go ahead and have fun flying your kites, but make them yourselves!"

Shaping the Family and the Business

Chatrabhuj Shroff

Bhabha

Chatrabhuj Shroff was the patriarch. He and Ma were parents to six children, of whom Champraj, Govindji and Kantisen became Chairmen of Excel Industries. Very early on, Chatrabhuj Shroff took a keen interest in science and technology. He lined his bookshelves with volumes on these subjects, which, much later, his children would refer to and draw from.

As a principled man, Father set a clear example to his children as also to the people who came in contact with him. Here is an incident to show the kind of committed, principled person he was.

Father was a Director on the board of an Indian pharmaceutical company that put up an alcohol distillery to meet their pharma requirements. Since the British discouraged any competition with their product, the company began suffering losses. When a suggestion came from a board member that they should sell the alcohol as a potable product, Father firmly refused and resigned immediately. He saw no merit in going in for questionable, short-term profits.

Father always encouraged a spirit of joyous togetherness, which was to continue through the generations. At the same time, he exhorted each child to take initiative and responsibility. "Go ahead and have fun flying your kites, but make them yourselves!" So, kites were made, not bought. Cameras were a novelty then, and photography was learnt by converting the bathroom into a dark room, where prints were made by the children themselves. Soap, perfume and hair oil were made at home. The children dabbled with experiments, almost as if their home was a small laboratory. There was a democratic approach to decision-making, with every suggestion heard fairly, even those from the four-year-old Kantisen, which were given due importance and often implemented!

In the political backdrop of growing unrest, strikes, dissensions and placards pronouncing "Down with…", Chatrabhuj Shroff had a markedly different approach. "What are you going to get from shouting '*murdaabad*'? The thing to do is to learn to be better than the British. The great might of the British is in their industry achieved through technology. If you can demonstrate how to run an industry in India better than the way the Britishers have done, you have automatically achieved your aim!" This strong positivity became part of the family ideology, and led his son, Champraj (C.C.), many years later, to announce in constructive defiance, "If **they** can, **we** can!" ...and even better.

And what a demonstration he gave, when, less than 10 years after India's independence from the British, C.C. put up a plant in the heart of London to make mercury salts, and gave such tough competition to the British that he was fervently requested to close the plant, with suitable compensation and a 10-year royalty! The making of Celphos, an aluminium phosphide fumigant in the sixties, was another concrete example of his constructive defiance.

These values of long-term thinking, creating in-house, rising positively to challenges, and being multifunctional by working together have shaped the life of the Shroff family and the business.

The Ingenious Founder

Champraj Shroff

Pappa

Champraj Shroff was known as both C.C. and "Pappa" throughout his life. He was born in his ancestral home in Kutch, on 23 February 1909. His initial schooling was in Kutch. He was a brilliant student and won scholarships established by the ruler of Kutch, Rao Khengarji III. Later, he came to Mumbai and attended the well-known Elphinstone College.

Even though there were early indications of his propensity to take on challenges, there was no indication then that he was to become the founder of Excel Industries, an industry set up in 1941 in a buffalo shed, that started with an initial capital of Rs. 10,000 from his wife, Snehlata, and Bohra friends.

If we were to pixelate not the image but the personality of this second son of Ma and Chatrabhuj Shroff, it might be very difficult to put the high-definition image together again; there would be too many parts to account for. His mother had taught him the dangers of idleness, so he was continually trying out new things and learning as he went along. The only difference was that now, the world was the real-life laboratory, with its own challenges, which he explored as a means of enjoyment. He swam, painted and indulged in wood-carving, magic, rifle-shooting, scouting, and even accepted the challenge of riding a spirited horse for the first time!

The young Champraj.

Champraj the family man: with wife Snehlata, daughter Renu, left; centre and right, with wife Snehlata, daughter Renu and son Ashwin.

India in the 1930s was on the boil, with demands for total Swaraj. Gandhiji's presence was the spur, and nationalist feelings pervaded the land. At Elphinstone College, Champraj Shroff was offered a prestigious scholarship to study abroad. He politely but boldly declined, determined that now, since his education was over, he was ready to enrol himself in the college of Life!

The times were not easy. Recession was on the rise, affecting trade. C.C. himself was a brilliant chemist, and he persisted in experimenting, whether in his small home at Princess Street, or as a chemical analyst in a laboratory, or as chief chemist at the reputed Eastern Chemicals. Here, at the royal salary of Rs. 25 a month, he understood how to make not only chemical products, but also new, dangerously exciting products such as grenades and explosives. Because of his acumen, he was in much demand by the government for its Ordnance Factories, but he decided to leave and set up his own venture. He spent long hours training someone to take over from him.

Indigenisation was picking up.

Gandhiji's call for Swaraj was being taken seriously by industries. Indians smelled war in the air. World War II was imminent, and though only a few basic chemicals were produced at the time, the chemical industry was poised for a sudden demand for chemicals that promised to make the cash registers ring.

And in 1939, war did break out, lasting till 1945.

Excel Industries was born in 1941, during this critical time, and the war drew different kinds of opportunities to its doorstep. For C.C., a furious pace of work was often called for. Much was achieved in the ensuing years. The building blocks of the company were firmly being laid.

Having inherited his ancestral sense of thrift, he looked for ways to extract more out of waste. He used film rolls from Mumbai's film industry to extract silver nitrate and celluloid, which he transformed into rolls for bangles.

Zinc chloride came from waste zinc, a by-product of the brass industry. He turned these into profitable products. When the highly flammable film rolls caught fire, gutting the warehouse, his response, as always, was positive: "My process has been simplified without the silver being lost!"

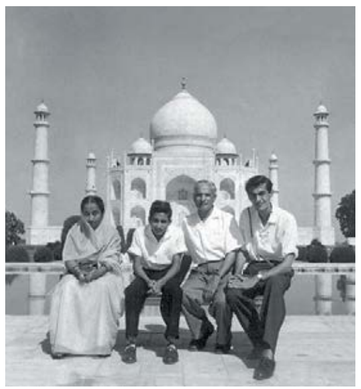
C.C. never stopped experimenting or helping people. He was visible, accessible, and always available for advice. Affectionately called Pappa by both his family and his employees, C.C. was easy

Champraj, the modest trailblazer, Jogeshwari Laboratory.

'Going for a spin in my gyrocopter!' One of Champraj's many innovations.

to be around and did not need to cross any barriers of hierarchy, since he wasn't conscious of them. He was honest, more interested in "how" than in "how much", offering solutions freely while others thought of patents. His Kutchi background naturally made him acutely conscious of money and its value, but he did not take advantage of urgent cries for help, charging only what he thought was fair.

A case in point was the urgent request from the Stanvac Refinery around mid-1950s. Their stocks of Cupric Chloride, a particular chemical that they were using as a catalyst, were running low and could not be imported in time. This created a threat of impending closure of their refinery. How could Excel Industries help?



Champraj, wife Snehlata, son Ashwin and cousin Kishor on a holiday at Taj Mahal, Agra.

Excel was already making Chlorides, so C.C. used the fundamental knowledge of the process that he had garnered, and extended it to meet this particular requirement. He also put together all the facilities they needed, using the equipment Excel already had in-house. Small quantities were needed, so C.C. was able to produce these in four days! His nephew, Shashubhai (Shashikumar) himself went to deliver this precious package on his brand-new motorcycle, zooming through the gates into the refinery, where people waited with bated breaths.

Excel charged the Stanvac Refinery only as much as it cost Stanvac to import the chemical, i.e. Rs. 4 per pound, leaving the Stanvac company manager in astonished disbelief! Why did C.C. not charge more, when Stanvac would readily have paid 10 times the amount?

C.C.'s reasons were clear: "**Industry and business do not survive on profit alone. They need the goodwill of the people more than the profit**." This honesty did not go unrewarded; it empowered him to obtain licences on the basis of his and Excel's growing reputation.

Using the same approach of combining his knowledge of processes with the facilities available, Phosphoric acid was made in a few weeks for ICI (India). Another story is about Bayer, which wanted to produce some products in India. Despite delays in negotiations on Bayer's part, C.C. was able to present them with what was needed, as soon as they asked! There are many other such stories.

Around 1951, Pappa was invited to Germany, where he learnt many new techniques. He returned to find some eager young men who were new entrants in Excel, and he decided to train them in these new techniques.

"Chlorine was inexpensive then, around 2 annas a pound, and not much in demand, and we learnt to make many compounds and new forms of it. Reputed foreign companies bought our chemicals," remembers Kaka.

There was no looking back for him. He was focused ahead—on the next challenge, the next discovery, the next innovation—always riding that metaphorical, spirited horse. Challenges had the effect of making him dig in his heels and get in deeper. He needed to understand the root of the challenge, by understanding each part of the process.

"What do we need, really?" became his core question, one that guided him over his lifetime and led him to discover and master over 100 breakthrough processes. His methods could appear primitive, equipment often rudimentary—pans, wooden tubs coated with cement, pickle jars, ghee and oil tins, bathtubs from ship-breaking yards; his workers were often without industrial experience and academically lacking, but no one was squeamish about getting their hands dirty. They did whatever needed to be done. And C.C. always encouraged them to do more, building their trust and confidence in themselves. There are numerous incidents of C.C. facilitating people to push their limits through his lifetime, and many examples of Excelites in whom confidence blossomed.

A healthy export of mercury salts was established, mainly to the UK. However, during the Korean War in the early fifties, the Government of India banned the export of mercury and its salts. How would they overcome this sudden obstacle?

At Amboli; C.C.'s office was between the library and laboratory.

True to the spirit of both C.C. and Excel, a daring decision was taken to shift the manufacturing to the UK! C.C. left for the UK, and found a local partner to help put up a factory, right in the heart of London! The most interesting part of the story is that a small but critical part of the reactor was carried by C.C. in his suitcase, and the factory started in three months! And who was the head of manufacturing? Manchhu, an unlettered Warli, an Adivasi boy!

Amrutlal Lad, who entered Excel accompanying his carpenter father at the age of 14, became part of the company's innovative engineering group, contributing to several important innovative breakthroughs in design and operation of new equipment and plants: Phosphoric acid, SO2, Air Jet Mill, Zinc dust, and so on.

C.C. 'played' with hazards to retain the nation's honour when he made Celphos, a vital chemical that protected stored grain. He took on the German 'dare' and proved that India could master a dangerous process through an indigenous route at less than half the cost. India became the second nation in the world to manufacture Aluminium Phosphide.

The cruellest challenge in C.C.'s life, however, was the death of his beloved daughter, Renu. It was sudden, grievous. Although C.C. had always imagined her sharing in his work in science and technology, his attitude to her passing was contained and positive. Perhaps God had willed otherwise. Perhaps C.C. was destined to be dedicated to science, with no attachments.

He talked about death as "a passenger getting down from the train when he had arrived at his destination." On 3 January 1968, he reached his own destination, while still working in his factory in Amboli. Many of the brilliant facets of this man were passed on to his extended family, along with the company he founded.

True to Her Name

Snehlata Champraj Shroff

Mummy

There was a reason why she was popularly known as "Mummy". Snehlata, the wife of Excel's founder, Champraj Shroff, was a multifaceted personality. Born into a Bhatia Vaishnav family and married at an early age to Champraj Shroff, Excel's founder, her name was changed from Pushpa to "Snehlata", and she was to spread the love and care that her name stood for, within her family, Excel, and members of the Bhatia community.

At a time when young girls and women needed permission to leave the house, Snehlata was extremely progressive. Full of vigour, she delighted in cycling, driving, music and dressing well. And she sang well too! Once, her father, a playwright who wrote scripts for dramas and films, asked her to make a record. It was based on a comical song his nephew had composed, about what kind of a daughter-in-law one should bring to her home! Later, she also organised a dance drama, which was well appreciated, and cut several music albums in the area of Gujarati Sugam Sangeet. While the rest of the family did not have highly developed musical ears, she and "Chachi" shared a common love of music. They often arranged women's activities in Matunga, where they all lived together: a head count of around 22 family members at one time!

A sense of humour prevailed even in the naming of the organisation she established. Snehlata created "Pa, Pa, Pagli", to help women. Her natural leadership qualities emerged in this role too, where she met people in need, offering counsel. She was happy when she saw people established in stable marriages and pioneered a Marriage Bureau, catering to the Bhatia community's eligible brides and grooms at the Bhatia Mahajan Wadi, along with like-minded Bhatia community leaders.

Married at an early age to Champraj Shroff, Excel's founder, Mummy's name was changed from Pushpa to "Snehlata".

Champraj and Snehlata relaxing after a long drive.

She travelled extensively within the country and abroad, but her attention was firmly fixed on her home and caring for others. As a homemaker, she explored the resources of the kitchen and came up with new dishes. Being able to cook well was a quality that practically all the Shroff ladies could boast of. Ravi has fond memories of coming home from school to find delicious fare made to suit his taste, by his grandmother, Mummy. Anshul, Ashwinbhai's daughter, remembers all the life lessons she learnt from Maiya through the art of cooking. Practically all the members of the family partook of the delicacies she created.

When the time came for the establishment of Excel Industries, Snehlata sold her jewellery to raise the amount needed by C.C. as his contribution. This formed part of the total from which Excel Industries was born.

When the time came for the establishment of Excel Industries, Snehlata sold her jewellery to raise the amount needed by C.C. as his contribution. This formed part of the total from which Excel Industries was born.

Forthright and Fearless

Govindji Shroff

Bhai

After the sudden, tragic passing of Champraj Shroff in 1968, his younger brother, Govindji Shroff, took over the running of Excel. G.C. Shroff had given up his job with a share broker, and joined C.C. in Excel when the latter needed his help. They lived in a joint family of over 20 members, a situation remembered with great fondness.

Soon after he had taken charge, the need to produce Phosphorus, a very critical raw material for Excel, became inevitable. A competitor had applied for a licence and was about to get it, which meant that Excel would have to depend on the competitor company. This was not acceptable to G.C.S. The technology was difficult, but he was not one to give in. Since it was not possible to manufacture in and around Mumbai for several reasons, and Excel's survival would have been threatened, G.C.S. and Kantisen Shroff (Kaka) had to deal with the situation. After much deliberation with Kaka and others, G.C.S. decided that Bhavnagar would have to be the new location for the manufacture of phosphorus. This would be Excel's first venture outside Mumbai.

"The true homage to C.C. Shroff, its [Excel's] founder, would be to adhere to a value system we have not yet found reason to change… and to keep on exploring possibilities for a newer range of products for community service."

Govindji Shroff

The story of the technical struggles they faced initially also has a positive parallel in the goodwill created in the local community, from where employees were sought. G.C.S. had a grounding in business and was a good administrator, but technical expertise was needed and G.C. and K.C. hired experienced experts at compensation packages exceeding their own pay!

To raise funds for the phosphorus plant, the company went public and issued shares. The issue was oversubscribed 32 times.

The family stuck it out through all kinds of unforeseen events till success arrived.

In many ways, Govindji Shroff was the face of Excel during his leadership, and both within and outside the company, he was known for his steadfast adherence to core values, even when they might have caused peril to himself. He openly valued the beliefs of and friendship with the social reformers Jayaprakash Narayan and Nanaji Deshmukh when they were under surveillance by the government during the Emergency, and was not afraid of offering them his hospitality.

G C Shroff shares a light moment with wife Shantiben.

He lived with his ethical principles and was able to extract the best from others. His willingness to hear out people, apply his mind and offer observations candidly and firmly, is also what people remember about him. The same applied to his dealings with labour unions.

One of his firm beliefs was that of '**trusteeship**'. This was propounded by Gandhiji, as quoted here:

"Supposing I have come by a fair amount of wealth—either by way of legacy, or by means of trade and industry—I must know that all that wealth does not belong to me; what belongs to me is the right to an honourable livelihood, no better than that enjoyed by millions of others. The rest of my wealth belongs to the community and must be used for the welfare of the community." So, you are not the owner but a custodian of the wealth you seemingly possess.

How does one conduct a business on these lines? Businesses need to be run on the basis of ethical values so that a part of the earnings from the business can be used for the welfare of the society.

G.C.S. took this to heart along with the Sanskrit *shloka*, *'Karmanye Vadhikaraste Ma Phaleshu Kadachana',* believing that duties must be carried out sincerely, leaving the fruits of those actions to the Lord. Excel continues to demonstrate this through the way it works, its treatment of the employees as family, and the work of its various NGOs.

G.C.S. was not afraid of admonishing people if it was necessary, but because people respected his values, they knew his views were steeped in good intentions and good lessons could be learned from his words. At the same time, he was quick to absolve employees for genuine mistakes they might have made, even at the company's cost, as happened when an invoice was erroneously made out to a customer in the US for half the actual amount owed. G.C.S. asked the employee to explain his mistake to the customer and ask for the rest of the amount. He also consoled the employee, saying that if payment did not come through, he would consider it a bad debt. The customer paid the balance in 20 days. Straightforwardness was always the best path to take.

Much has already been said and written about this strong leader, but what really sums up his contribution is that he would never ask an employee to do what he himself or his family members would not do. He put his son, Atul, and daughter-in-law, Shruti, through the grind immediately after their marriage, and later, when the Bhavnagar plant was in trouble, Atulbhai took his wife and young daughter from Baroda to Bhavnagar every three to four days, waking at 4.00 a.m. to make the trip, to return the same day.

Govindjibhai, Kantisen, Kishor and Pushpavatibhabhi.

Govindjibhai and wife Shantiben with grandchild Purvi.

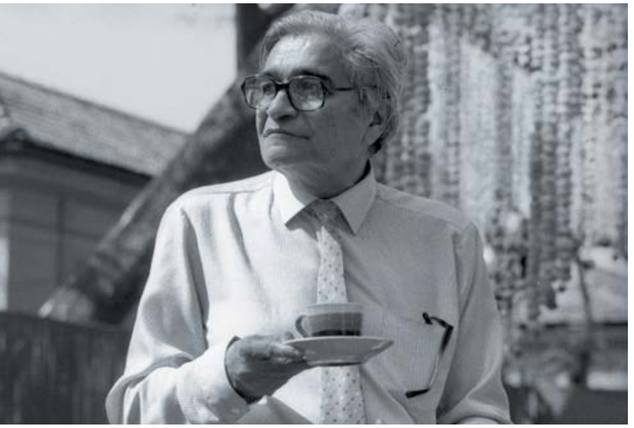
Govindjibhai was a multifaceted personality. He played an active role in many public institutions, and education and trade bodies such as Sharadagram in Gujarat, Sanskardham School in Mumbai and Shroffs Foundation Trust in Baroda. He was instrumental in forming a trade body, ABMP (Association of Basic Manufacturers of Pesticides) and was the President of ABMP for 10 years.

From 1968 until his retirement in 1985, Govindjibhai devoted himself to Excel's growth.

The Power of the Collective

Kantisen Shroff

Kaka



The artist who ran a chemical company.

If anyone were to attempt a description of Kaka, it would always be incomplete. His role in the family and the company and indeed the society, has been so meaningful that it has left its indelible imprint on the chemical industry, the company's image, and the hearts and memories of people who came in contact with him. His reputation has earned him the epithet, "The Grand Old Man of Kutch", and his face has graced the pages of many journals and magazines that honoured his achievements, just as his name is etched on the awards he received—those he received himself and those received on behalf of Excel. Among them are the prestigious **Lifetime Achievement Award** he received from Chemexcil, and the **Good Corporate Citizen Award** 1993–94 from the Bombay Chamber of Commerce and Industry (BCCI). He was also honoured by the Chemtech Foundation as **Environmentalist of the Year**, in 1983.

And yet, he has no degree in either chemistry or engineering! His interest and training were in fine arts.

This youngest brother of C.C. was Joint Managing Director of Excel Industries Ltd from 1968 to 1985. In 1985, he became Managing Director, and then Chairman in 1999. At 95, he is still sprightly, living in Kutch, working with missionary zeal far beyond its confines, on a national level. He is always free, approachable and willing to listen to anyone, especially those who have the interest of the people at heart.

Conversations with him are extremely enlightening and encouraging.

Jodi tor daak shune keuna ashe,
Tobe eklacholo re.
If no one answers your call,
Then walk alone, my friend.

These lines by our national poet, Rabindranath Tagore, resound through Kaka's life. On many occasions, he took decisions that might have made others falter, but he took his own path bravely after considered thought, and often, others followed the path he carved out.

Born on 3 January 1923, he has many memories of the happy family time they all had, living as a joint family. He often talks about the joy of togetherness, that quality of *sahaviryam* that kept the family, as he remembers, "…like five fingers attached to one single palm, each with a specific function and purpose to serve and yet collectively having a common bond: the collective strength of togetherness, which should be directed to serve the greater good of the larger society."

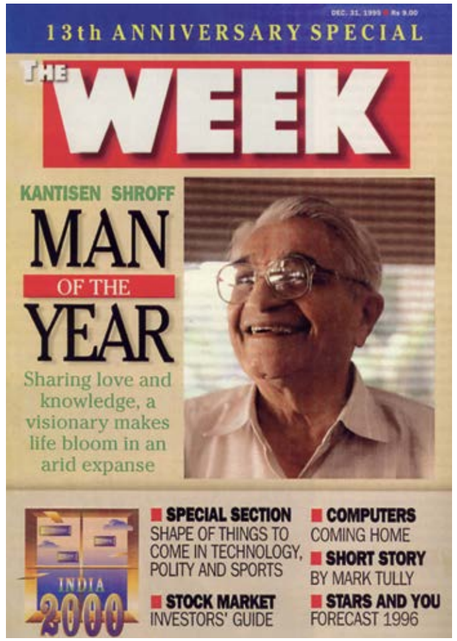
The same quality applied in the factory, and it was quite normal to see him shirtless, working alongside the factory staff.

A very felicitous feature in the lives of both the family members and Excel is the very long and impactful influence that Kaka has had in "keeping it all together". G.C.S.'s long term at the helm was a continuation of C.C.'s approach, and this was extended by Kaka, so that the core values were maintained and took deep root in the generations that followed.

Kaka was married to Chandaben in 1957. Ma, her mother-in-law, taught her all the Bhatia dishes. Much later, Chandaben set up "Shrujan", an NGO that helped the women in Kutch to market their skills in embroidery.

The many, many anecdotes about Kaka, told by various Excel stalwarts past and present, give us a picture of a man who is driven. Kaka took on responsibilities up front, and saw Excel grow right until 1985, then helped steady the fortunes of Excel at a time when, as Shri J.S. Gosalia says, the morale of the company was very low. He brought in strategies to make sure that products were diversified, that Excel's credibility in the market was sustained. From even his earliest times in Excel, he was fired with his brother C.C.'s resolve to reduce and eliminate imports, and to **make in India**, the tagline of today's government. Indigenisation was a means of reducing not only costs, but dependence on products and technologies of other nations.

In 1951, both brothers visited Germany, a highly nationalistic country, for an interchange of ideas, so that they could look within India and identify less expensive ingredients. This fostered much research and experimentation, which Kaka was not afraid of; after all, precautions were always taken. While they played with



hazards, the safety of their colleagues was also important. The working style followed by C.C. and K.C. was of being on the spot, to observe first hand as also face hazards if any, together with the team.

He encouraged workers on the plant to use all five senses, as a housewife does when she cooks.

"Test tubes are meant for testing," K.C. says. "And workers would come in, shift after shift, to observe the changes taking place in those transparent tubes, the colours, the smells, the heat… Till the early 1990s, workers would sit in the plant and merge into the process.

"The library was an inspiration. I got a lot of knowledge from the basic library books. There were trunks full of reports from German plants," he adds.

The success of this experimentation reflected in the product sales: Oxalic acid, Phosphoric acid, Aluminium Phosphide. These converted into exceptional sales numbers.

Kaka's tool for solution-finding was a very broad style of brainstorming. No matter the challenge, find a solution, he would!

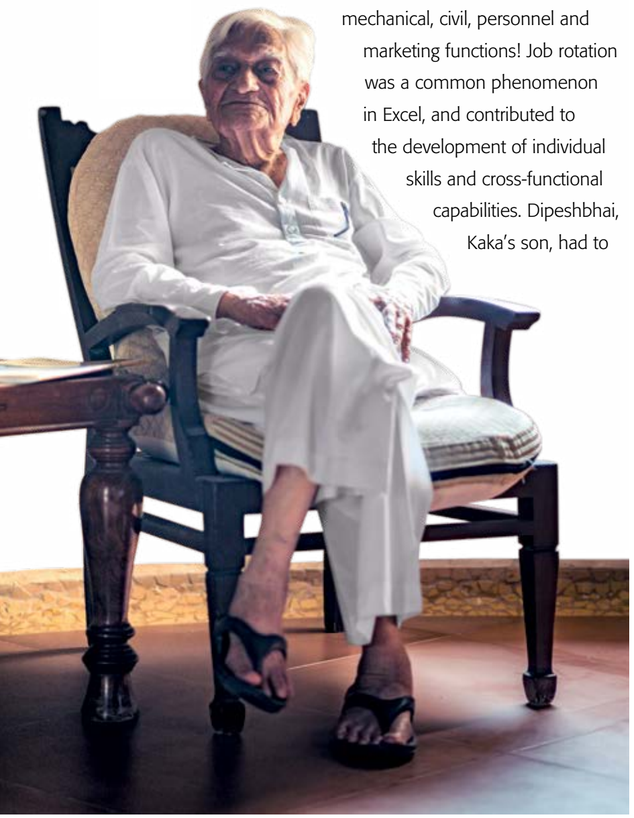
Take the story of Glyphosate. Once, the cost per unit output of this product was becoming too high, and months of discussion presented no solution. "We are all going to Roha and will stay there until the problem is resolved," Kaka pronounced. At Roha, Kaka sat patiently through three or four days, mostly on the shop floor, while the entire team discussed

the problem and arrived at a solution!

Kaka's most significant contribution was perhaps his ability to groom people and form effective teams.

Kaka had an almost unerring ability to spot the strengths in not only job applicants but also random people whom he met and later invited to join Excel! Earlier, when requirements and processes were relatively simple, it was possible to do this. When more qualified staff were needed, Kaka could identify what kind of function could be best performed by which person, or, better still, which person could pick up unfamiliar functions quickly.

His interviewing tactics have become legendary and sometimes lead to comic relief! One chemical engineer was asked to prove his cooking skills, another was asked to draw a circle on the ground, yet another was hired, then rotated through electric, mechanical, civil, personnel and marketing functions! Job rotation was a common phenomenon in Excel, and contributed to the development of individual skills and cross-functional capabilities. Dipeshbhai, Kaka's son, had to spend time in the carpentry shop, because, according to Kaka, it sharpened concentration and made one patient.



...and a return to art. At 94 Kantisen celebrated life with his first exhibition of paintings.

Known for his determination, Kaka sometimes also displayed a temper. As Dipeshbhai recounts, "Kaka loses his temper only when someone breaks the safety rules…he has that kind of moral authority." This is, of course, vital in a chemical company with its own potential hazards.

Kaka also knew how to put people in their place, but in amusing and ingenious ways. Ninad Gupte, who joined Excel in 1975 and rose to become Joint Manager Director of Excel Crop Care till 2016, was among the first of the so-called "swollen-headed management graduates", as he himself puts it. He had any inflated ego knocked out of him when Kaka told him out of the blue that they were going to Kutch the very next day.

"Tell your mother you don't know when you will come back," he had said.

Later, Gupte learned this was Kaka's standard approach.

"He never encouraged return tickets. 'Why return tickets when there is work?' he would say."

While Marzban Patel was to go to Baroda for a week, he stayed on and never returned!

At the same time, the family feeling found deep expression in Kaka's dealings with employees. There are countless instances of sustained kindness, of visiting ailing members of an Excelite's family.

During 1987–88, the years of the Iran–Iraq war, Gupte was stuck in Teheran for around three weeks. At that time, his son developed chickenpox.

"Kaka visited my son every alternate day. This was the kind of confidence and comfort he gave to his own people," Gupte remarks.

Dhananjai Degwekar also remembers that Kaka took him to dinner with his relatives while the former was studying in Ahmedabad, just so that he would not feel lonely.

Gupte had several stints with other companies too. When Kaka became the Managing Director, he told Gupte, "*Dikra, tu pachho aavi ja*, (Come back, son!)" And he did. His salary was decided a month after he re-joined.

Maya Gandhi recalls how after successfully running a personality development training camp for the children and relatives of Excel employees for three months, she was asked by Kaka to go into the interiors of Kutch, which, for her, was completely unfamiliar territory. For Kaka, the mere visit was not important. "What is your learning? Write and tell me," he would say. Later, when there was a disastrous earthquake in Kutch, she was able to become the point of contact for hundreds of people calling in to ask how they could help.

These are just some of his unconventional ways that endeared him to his "company family".

The list of those he has helped would fill a book: from Vijay Bhatt, whose father was an Excelite, to the handicapped Sudha Tendulkar, who became Excel's telephone operator, to Himanshuben Mehta, allowed to work with flexible timings, to Jayrajbhai Chhapper, given the opportunity to learn about diverse products and procure a loan from the SCT… the list goes on.

Talking to Kaka is a way to learn about life. How did a young man interested in fine art, who derived training at Santiniketan, turn towards chemistry?

His answer arrives, couched in terms of the greater good of all. He abandoned his chosen field when the need to be part of India's Independence movement became imperative. He also has an interesting perspective on fine art.

"Western art seems to focus on the artist, whose name is linked to the piece of art. In Eastern art, the emphasis is on the art itself; the element of seeking fame is low. There are many great works of art that are anonymous."

This perception strikes a chord with his way of thinking. His vision too, parallels the idea that actions, like works of art, are important and should reach out for the benefit of humanity, no matter who they are performed by.

He phrases his guiding principle as follows:

"Recall the face of the poorest and weakest person whom you may have seen, and ask yourself if the step you contemplate is going to be of any use to him. Will it restore him a control over his own life and destiny?"

By any standards, it is a difficult principle to live by, a text out of an idealist's book. But then, Kaka is just made from a different mould.

'That was a good joke!' Chandaben and Kantisen outside their *bhunga* in Kutch.

The Threads of Dignity

Chandaben Kantisen Shroff

Kaki

As we sat around the outdoor tea table, Kaka, who was waiting for us, pulled out a couple of exquisite adult colouring books. "See these first," he said. "This is what Kaki does for hours on end these days. It is a therapy that keeps her mind fresh and hands nimble. I too do it sometimes, but I do not have the patience Kaki has. Our daughter Ami bought these for us."

"The hours just roll by," Kaki replied quietly in response to our exclamations of appreciation. The vibrantly coloured designs exuded the same joyous exuberance and sheer beauty that marked the finely crafted Shrujan products.

"Why don't you speak to Kaki? She has wonderful stories about her work with women," Kaka urged us.

"This is for the Excel book. Why don't you talk to Kaka?" Kaki would insist each time we met. "He has an amazing knack for bringing out the strengths in others," she had added with a gleam of appreciation.

Before we sat down for a discussion, Kaki ordered platefuls of freshly harvested *jamun*s (black plums) and *kharek* (fresh dates) from Ami Baug, their nearby farm. The evening breeze was a balm after a hot summer day. We were in the Shrujan campus at Bhujodi. Kaka and Kaki sat next to each other in a serene companionship. The bond of a life meaningfully lived exuded an energy that needed no words.

We were just back from a visit to Kaki and Ami's, (Kaka–Kaki's daughter) ambitious vision, the Living and Learning Design Centre (LLDC), a one-of-its-kind textile museum and training centre, established to preserve the indigenous and traditional crafts, embroidery being one among them, practised for centuries by the various communities in Kutch. The LLDC has three museum galleries and multiple spaces for training, conducting workshops and research.

With the help of her family Kaki set up Shrujan, a not-for-profit organization working with craftswomen in Kutch to revitalize the ancient craft of hand embroidery.

We asked Kaki what her plans were for the next phase. "Museum *emne khedelu khetar chhe*, it is the fruit of their toil, it belongs to the women and the *kaarigars*; it is really their endeavour. We have just been a means. The museum will provide a platform for designers and craftspeople to work together and develop new craft-based products for contemporary markets. But today, I would like to talk about four women."

"The women of Shrujan are like my own family. We have been through so much together: a war, cyclones, droughts, the earthquake in 2001… natural calamities and family upheavals… "We have learned from one another, and always, we have found solutions together." Shrujan, for Kaki, is "a support system for home-based women, as well as a reminder of the creativity and potential inherent in all women".

The names and some details do not matter. What matters is the difference the support system made to the lives of women in their time of need. Because that, for Kaki, has been the most significant part of the Shrujan journey.

"Mother and daughter both did embroidery for Shrujan," Kaki began, as she recounted the stories of the women she wanted to talk about today. "The daughter, like all daughters, was married. But she continued with her embroidery. Very early in their marriage, her husband fell ill. She took a loan on the shawl she was embroidering. 'Kaki will give me the Rs. 5,000 that I need.'"

Kaki and Shrujan did not let her down. Her husband was treated.

Quality was a hallmark of Shrujan's hand-embroidered artefacts.

Kaki discussing embroidery designs with the artisans.

Chanda Shroff received the prestigious Rolex Award for Enterprise in 2006 for preserving a unique heritage of Kutch, hand embroidery, while promoting an exquisite art form and empowering women in a highly conservative society.

He is well and now working. Without that timely loan of Rs. 5,000, her life would have been drastically different.

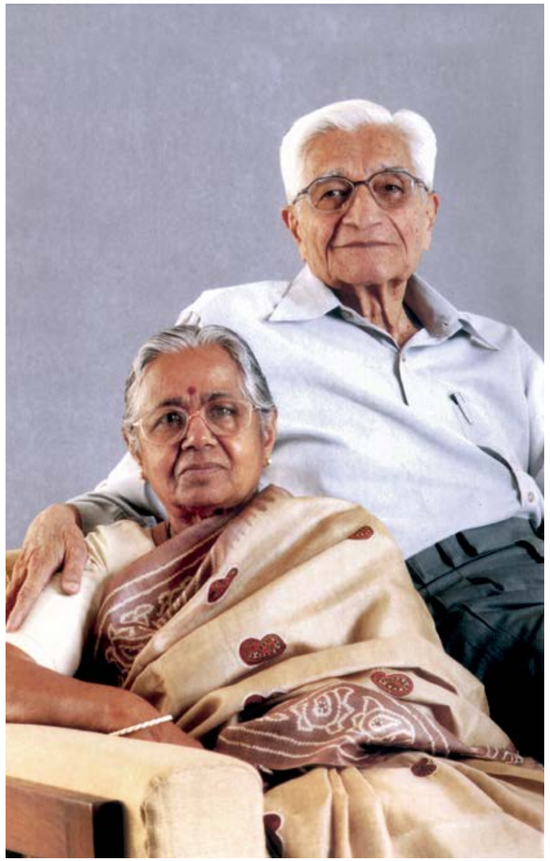
She tells us about the second girl. A story about enterprise.

"A Darbar girl inspired 35 girls in Banaskantha to re-learn their forgotten embroidery skills. She coordinated with Shrujan and organised a training programme for them. This enterprising girl now runs a showroom in Ahmedabad. The 35 women earn a supplementary income through their embroidery."

The threads of embroidery have also knitted people together.

"Little shoots of inter-caste acceptance have begun to sprout. Just a few years ago, Rajiben, a master craftswoman from the Dalit community (previously considered to be 'untouchables') would not have been allowed to step into the homes of the higher-caste women of the Ahir and Sodha communities. Today, after a painful struggle on both sides, Rajiben is accepted by them as their teacher. The women all sit and work together in their homes, exchanging ideas and even food."

Shrujan Centre, Bhujodi, Kutch.



Kaka and Kaki—Kantisen and Chanda Shroff.

A light-hearted moment at Ami Kunj in Bhujodi.

Daughter Ami's gift to Kaki, a new hobby to keep the hands nimble and mind colourfully engaged.

The last story Kaki told us is about a journey from survival to dignity.

"Bhavan-ba stayed at Ghatkopar, and they ran a ration shop. Her husband lost everything to his drinking. Without any resources, they could not survive in the city. They came to the village in Kutch. She joined a Shrujan training programme. The family survived with the little income. She trained others. Her confidence increased. Today, her son is an engineer. She has pulled her family from survival to dignity with Shrujan's home-based support system."

The works created by the women through Shrujan are of great artistry, and the collection is a breathtaking testament to the aesthetics and vision of the artisans who created them and the tradition they embody. Far more significant is the dignity the artistry has brought to their lives.

Chandaben, Kaki, was chosen as a Laureate of the Rolex Awards for her work to ensure the survival of an exquisite art form in a way that creates a sustainable source of income for the women of Kutch.

Fortune must have destined for us to meet her so recently, almost as a fitting endorsement to us in our attempts to describe her for the Excel book. We are so grateful for that.

What struck us most were her modest and quiet ways, which overlaid her strength and determination in wanting to make the lives of women more meaningful. Today, success in this is acknowledged by the world.

It's the small things that we will always remember about our first and only meeting with her… the warmth in the casual hospitality, her pages of designs, the *kaala jaambu* from her *bagicha* that she offered us… and something very precious to her, which she mentioned quietly: that long ago, Ma had expressed her gladness in having her as a *bahu*.

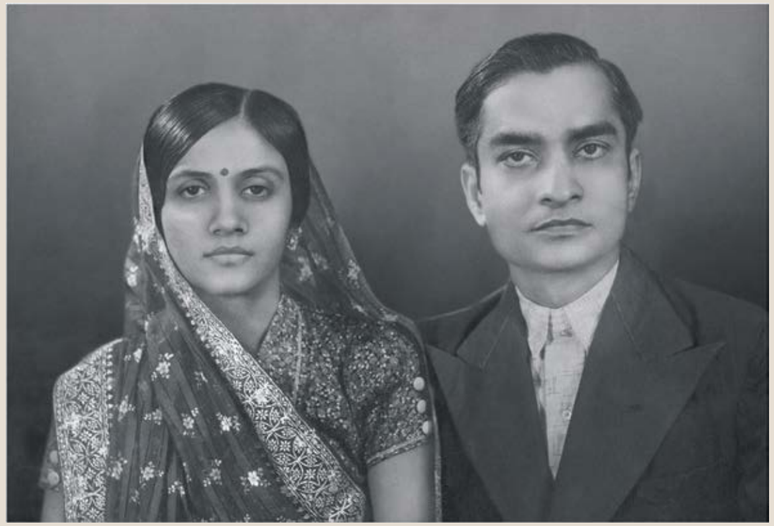
May she rest in peace.

Kaki, Chandaben Shroff, passed away on 23 August 2016, within two days of our doing this little story about her.

The legacy lives on… Ami Shroff receiving the Nari Shakti award for Sustainable Development of the Craft Sector for year 2017 from the Hon'ble President of India, Ram Nath Kovind.

A Passion for Perfection

Devidas C. Shroff



Devidasbhai and Pushpavatibhabhi

He was a stickler for perfection and cleanliness.
He also recited poems to teach his extended family
the values embodied within them.
Before school reopened, he taught the children
the correct technique for covering their notebooks.
It was a ritual in perfection: right-angled edges
without using set squares!

From Kaka's memories of him…

The eldest son of Chatrabhuj Shroff and Ma, Devidas was both loving and strict.

Very early on, he trained his siblings in simple but important habits, which remained with them throughout their lives. His tool box was always at hand, to oil door hinges or coax other items back into working order. It may be because of these disciplining habits that his brothers imbibed and implemented that, later, the factory attained its high standards of excellence.

He loved photography and initiated the setting up of a dark room at home.

Devubha, as he was known, was working for a French pharma company, Raptakoss Brett, helping with marketing. He passed on many ideas for marketing to Pappa, but himself had to leave the company as recession hit. He faced the economic depression of the 1930s and went into military service, and was thus often away from his family for long stretches of time. He returned after a stint as he was unwell, and joined the factory for a while. However, later, he opted to stay at home to groom the 11 younger members of the family.

Being very disciplined, he was a stickler for perfection and cleanliness. He also recited poems to teach his extended family the values embodied within them. Before school reopened, he taught the children the correct and perfect technique for covering their notebooks. It was a ritual in perfection: right-angled edges without using set squares!

He had the same qualities of thrift and service as Ma. Once, he saw his daughter throw a small pencil stub out of the window. She was summarily pulled up and asked to find and bring it back. Finally, she found it in the dust below and was taught how to use even that stub. He made sure all the younger ones washed their own plates and cups so as not to burden the women of the house. He was the one who bought jewellery and sarees for the women, as also household groceries and other supplies.

Kaka remembers Devubha as being instrumental in encouraging him to join the Fine Arts Academy, and then later, in convincing him to help his brother C.C. in the factory. "A family member in Excel would be a great asset; art could be developed later," he said, and Kaka saw the wisdom in this.

"In 1949, we bought a plastic moulding machine and during a three-month stint in England, I learnt how to reduce costs by using a cheaper brass casting instead of steel moulds," Kaka recounted. "Our toys were wonderful. Devubha's marketing skills helped in setting up a network with other toy making companies. For around two years, sales of toys constituted our major income."

Devubha passed away suddenly, knowing the pride of being part of a family-owned company that was on par with the best.

Kaka pays a fond tribute here:

"This morning, I remembered him fondly. I still wipe mirrors with a wet cloth, and neatly arrange shoes that may have been placed untidily. I do this with a certain joy. He was the one who taught me all these useful ways of being, of giving respect to each item."

Devubha and Pushapavatibhabhi with young Ashwin, son of C.C. Shroff. Daughter Sudha to right of Devubha. Younger daughter Jotu, left and Renu daughter of C.C. Shroff, right.

Love and the Season of Freedom

Nandini and Ramesh Gandhi

The first love story of the Shroff family was not a story of two people. It was a story of two people and a nation struggling for Independence.

The female protagonist of this story, the petite Nandini Shroff, or Bai as she was fondly called by her family, was a medical student when the Quit India Movement began under Gandhiji's leadership.

Her 'hero', Ramesh Gandhi, the 'fugitive' dentist and family friend, was evading an arrest warrant for his underground activities to support the Indian Independence Movement. Ramesh Gandhi's indomitable spirit and unswerving dedication to the freedom struggle captivated the heart of the sensitive and serious Nandini. Behind the soft exterior, Nandini had a sharp mind and steely courage. She designed a smart plan and smuggled the 'wanted' Ramesh into her 'safe custody', braving the watchful eyes of the British forces. Love blossomed. Their shared ideals grew into a lifelong commitment to the health and well-being of the people of the city they made their home, Hyderabad.

With the consent of both their families, they married in 1944, while Ramesh was still underground. To evade arrest, they changed their names and identity and quietly slipped out of Mumbai and went to Bharuch in Gujarat. There they took up teaching jobs in a small school. Living incognito, they plunged headlong into activities closely connected to the freedom movement and local development. These included creating a nucleus of social workers and starting charitable dispensaries in the labour areas, which were a boon to the flood-devastated villagers on the bank of river Narmada. In recognition of all the yeoman services rendered by him in Bombay and Gujarat, the Bombay Provincial Congress Committee (BPPC) nominated Ramesh as the secretary of the medical committee of its wing.

Behind every successful man...is his supportive and equally successful woman. Ramesh and Nandini Gandhi.

A younger Nandini.

For the next two years, Ramesh and Nandini Gandhi moved around the country in different guises, assisting in underground activities, including the annexation of Junagadh. (The nawab of Junagadh, Muhammad Mahabat Khanji III, a Muslim whose ancestors had ruled Junagadh, had decided that Junagadh should become part of Pakistan, much to the displeasure of many of the people of the state, an overwhelming majority of whom were Hindus.)

With the mounting pressure to make India a free nation, the political climate changed; the Bombay police withdrew the warrant against him in June 1946, and the young couple returned to Bombay. Ramesh continued with his active participation in the freedom movement and Bai went back to her medical studies with the support of her in-laws, also doctors. She had the distinction of being the second woman doctor among the Bhatia community.

But the struggle for Independence was not yet complete. The Nizam was holding out against integrating Hyderabad into independent India. The couple moved to Hyderabad to be closer and more useful to this struggle. Under the leadership of S.K. Vaishampayan and Swami Ramananda Tirtha, stalwarts of Hyderabad's freedom struggle, the couple got deeply involved with the freedom struggle of Hyderabad. Together with other movements, Ramesh was in charge of broadcasting 'Free Hyderabad Radio' operating from Bombay, which also covered the neighbouring states of Madras and Nagpur.

Once the Nizam relented and Hyderabad became part of India, on 17 September 1948, they came back to Mumbai to join their family. But Hyderabad beckoned again. In 1950, they arrived in Hyderabad with a paltry sum of Rs. 150. Nandini, with the help of her husband, started a maternity nursing home 'Anand Clinic', named after her brother Anandji. Ramesh Gandhi went into business. Ramesh started Hyderabad Chemicals, a chemical and pharma trading unit, and later went into the manufacture of chemicals and pesticides.

Ramesh Gandhi was a hero in the public life of Hyderabad, actively involved with many social causes. He was the President of the All India Chemists and Druggists Association for several years and the Vice President of Andhra Pradesh Pharmacy Council. He was the first to introduce a Drug Bank and Blood Donors Association in Hyderabad to serve the poor. As a Chairman of the Lions Health and Welfare Committee and President of the Lions Club Hyderabad, he started charitable dispensaries, oxygen cylinder services, pathological laboratories, dental clinics, sick-room equipment services, ambulance services, blood donors' association, and a Lions Diagnostic centre. As treasurer of Family Planning Association, Association of Moral and Social Hygiene, he rendered distinctive services to charitable and services organisations of the state. Nandini rendered services as a Vice President to Family Planning Association and was a leading medical personality of Hyderabad. Later, she donated her clinic at Nallakunta to Lions Club but also worked there for several years as an honorary doctor. They regularly organised several medical camps, mass marriages and fund donation drives to establish and support services for the underprivileged sections of society.

Dr Ramesh was awarded a 'Tamra Patra' and 'Swatantrata Sainik Samman Pension Scheme' by the Government of India, announced by the Indira Gandhi government in 1980 for his distinct role in the freedom movement of the country. He gracefully refused to take the pension after a few months. Nandini, through her medical expertise, served everyone who came to her. Her nursing home specially welcomed the underprivileged with tender love and care.

There are many amusing stories about the couple, including one about their pet parrot, or the dogs who firmly made themselves members of the family and fussily demanded attention in all situations! Nandini regularly fed them with her own hands; to her they were her children.

Kantisen, or Kaka, thinks of Bai with gratitude, remembering that his wife, Chandaben, went to stay with her during a period of illness, when Bai tenderly nursed her back to health. This also happened with Kaka, as a break from his relentless work for Excel.

Bai had learned to be an able administrator. She set up a 30-bed hospital, called the C.C. Shroff Memorial Hospital, named after her brother, which is now a 200-bed charitable multi-speciality hospital, a 'Temple of Sound Health and Selfless Service'.

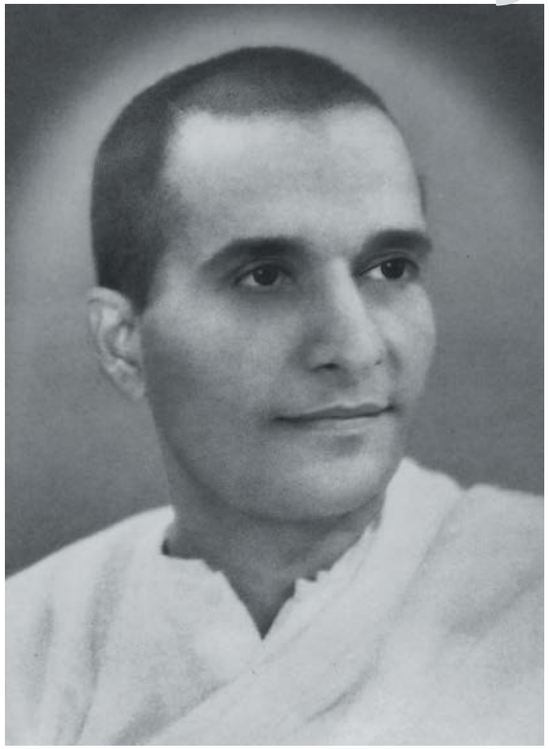
When Bai passed away a few years ago, years after her husband, the news was on the front page of one of Hyderabad's leading newspapers.

"Have faith in God, speak the truth and do not hurt anyone," was her simple philosophy.

The Joy of Service

Anandji Shroff

Anandji Shroff



He contracted polio and lost the use of his lower limbs. In the late 1940s, from his little cottage built on the factory premises, he would wheel himself around in his wheelchair.

Kaka and his sister always remembered him as a lively, handsome, loving person.

His heroes in his younger age were the protagonists of western classics such as the *Three Musketeers* and the *Count of Monte Cristo*. Perhaps no one even dreamed at the time that by his mid-30s, Swami Vivekananda would become his real hero, so much so that after a brief job, necessitated by the family's financial condition at the time, he would begin serving fulltime in different "*kendras*" of the Ramakrishna Mission, as a Brahmachari who undertook all kinds of hardships in the war-torn years. When his mother expressed her concern for his health, he would gently tell her that if she knew how little an Indian in the rural areas got to eat, she would understand that he had no right to have any more.

However, the strain of this hard life was too much for him. He contracted polio and lost the use of his lower limbs. The family called him back, but no treatment worked. In the late 1940s, from his little cottage built on the factory premises, he would wheel himself around in his wheelchair, using his intellect and willpower to organise the work of the office and to teach children at night.

His peaceful passing away at the young age of 35 certainly left a void, but his devotion to the Ramakrishna Mission influenced the family to want to serve others. In many different ways, the family contributed to the Ramakrishna Mission, and even named their NGO Vivekanand Research and Training Institute (VRTI), Vivekanand being Anandjibhai's idol. Members of the Shroff family, right up to Gen-III, are involved in activities of the VRTI.

Anandjibhai's life left such long-lasting impact and value that the entire family can never forget him.

Seven *Pheras*: Daughters-in-Law

Pushpavati Devidas Shroff, Snehlata Champraj Shroff, Shanti Govindji Shroff, Chanda Kantisen Shroff

Ma's Bahus

These were Ma's bahus, or daughters-in-law, the "First Ladies" of the Shroff family, who formed a circle of welcome and hospitality and engaged in all kinds of social activities within the family and the community. In today's fast diminishing joint-family system, here was a picture of the women that embodied the qualities so essential to the successful running of the extended family.

Being able to cook well was a quality that practically all the Shroff ladies could boast of.

The one whose cooking skills were exemplary was Pushpavati, Devidasji's wife. She had a religious bent of mind, being a *pushtimargi*, and performed *seva*, or service, regularly in the time-honoured Bhatia tradition. How can there be seva without a good *prasad* or food offering to follow? She would make a variety of offerings to God, which were distributed as prasad later. She took pleasure in caring for the family. One form of that caring quality was the satisfaction she derived from feeding others, and her cooking skills were greatly applauded. "The taste of her golden mango *barfi* still lingers…," Ashwinbhai reminisces. Her *devrani*s or sisters-in-law often used to ask her to be the judge at cooking competitions!

Though steeped in tradition, Pushpavatibhabhi was very broad-minded when it came to her sons and daughters-in-law: Sandra, her son Rajju's wife was a Britisher; Chandu Dalal, her daughter Sudha's husband, was a Jain; while her daughter Jyotsna was wedded to Jyoti Bhatt, a Brahmin by caste. The multi-textured family was her joy and pride.

The bahus were not all from the Bhatia community. Chandaben, or Kaki, was the first Bania daughter-in-law, later followed by Pushpavati's daughter-in-law, Sandra, who was a British national. These two, from Gen-I and Gen-II respectively, integrated themselves so well into the Shroff family that they became the favourite bahus!

It was a spirited, dynamic, industrious but contented household. Govindji Shroff, 'Bhai' for everyone, recorded his feelings about it

Front row (left to right): **Kaki, Ranjanbhabhi, Mummy, Pushpavatibhabhi, Champuben and Chachi;** (Second row): **Shrutibhabhi, Hiralben and Preetiben.**

in an interview conducted by a famous Gujarati novelist. "We were living in a joint family of around 20 members. We lived together, ate together and we were happy. There was never any feeling of: 'This is my son and that is my brother's.' All are children of the same family. We all felt like being members of one family."

Ashwin Shroff remembers an incident of those days when an astrologer examining his father's palm mentioned, that he had nine children! Everyone hearing this was amused, since he had only two children. However, he promptly agreed, for sure enough, there were nine children between three brothers!

Comings and goings were normal, and later, when the growing family moved into new homes, it was common for members of the family to stay at each other's homes.

To say that all these ladies thrived in their own world would be to state only a partial truth. They were very much a part of Excel too, and along with the Shroff men, who treated their employees as family, the ladies were involved with the events within the company. The men took pride in taking the ladies to the factory; the ladies saw opportunities to organise events and celebrations with staff, and attended special occasions just as family members do. No wonder they were always addressed with kinship terms, such as Kaki, Mummy, Chachi, Bhabhi.

Today, we have overwhelming evidence of their involvement with all kinds of activities that Excel entered into, especially those which reached out to the larger human family through NGOs created by the company.

Usha Shroff's accounting and financial acumen was expressed within Excel, where she contributed to the working of that department, taking active part in decision-making.

Shruti Shroff, of Gen-II, founded a new NGO—Shroffs Foundation Trust (SFT)—after having spent decades travelling with her husband, Atul Shroff, to and from the plants in Baroda and Bhavnagar, even going to Durgapur in West Bengal during the peak of the perilous Naxalite activities. SFT started its activities around the group

Ma's bahus at a family wedding wearing the traditional Kutchi *gharchola*.
Left to Right: **Amrita, Namrata, Shrutibhabhi, Ushabhabhi, Sandrabhabhi, Shailabhabhi, Kaki, Ranjanbhabhi, Preetibhabhi.**

company, Transpek Industry Ltd. Soon, the Gujarat government invited SFT to visit Chhota Udepur, with a view to involve SFT in tribal development work.

When Shruti Shroff, SFT's Managing Trustee, and Atul Shroff, MD of Transpek Industry, visited Chhota Udepur, they were deeply moved by the abject poverty of the area. They immediately decided to enter Chhota Udepur with various programmes such as watershed and agriculture improvement, land and water conservation, microcredit, livelihood, health and education.

Preeti, Dipesh's wife, began craft activities under the auspices of the 'C.C. Shroff Self Help Centre' with the guidance of Kirit Dave, which led to their exporting goods overseas.

She has made a bold commitment, post the recent Kashmir floods, in initiating development work in Kashmir.

Shrutibhabhi, Managing Trustee, Shroffs Foundation Trust.

Kaki with daughter-in-law Preetibhabhi.

Sandrabhabhi and Shailabhabhi help Ranjanbhabhi adjust her *pallu* during her daughter's wedding.

She was from the Soni family, and Dipeshbhai, in his inimitable way, paid her an oblique compliment by saying that along with Sony products, Soni daughters were also well-made!

The story of the seven *pheras* does not end. Gen-III has brought more daughters-in-law into the family fold, with Amrita and Shivani. Gen-IV has already arrived… and new stories will be told, with their own plots. What, hopefully, will not change is the melding of these individuals into the spirit of togetherness that makes them one family.

A Shining Light

Renuka Shroff

25 years of sunshine, till she went away…

Renu

Renuka Shroff was born in 1939, the first child of Champraj and Snehlata Shroff. An early photograph shows her in a frock, riding a 'wonder plane', a simple gyrocopter designed by her father, C.C. Later, she was as comfortable wearing trousers as she was wearing sarees.

What does one say about the delightful tomboy of the family—bright, intelligent, sporty, adaptable and quick to grasp—whom the Gods took away when she was only 25? Surely, that her expressive eyes are alive in the portrait that graces Excel's conference room, and that she still lives vividly and fondly in others' memories.

Renuka Shroff was born in 1939, the first child of Champraj and Snehlata Shroff. An early photograph shows her in a frock, riding a "wonder plane", a simple "gyrocopter" designed by her father, C.C. Later, she was as comfortable wearing trousers as she was wearing sarees.

"I remember the gyrocopter," Ashwinbhai, her younger brother recalls. "It was made by Pappa with the help of Dhanji Mistry, the carpenter. Renuben could control and ride it on Juhu beach, but when I tried, I brought it down and managed to break it!"

On family holidays in Matheran, where a bungalow was booked for a month at a time, horse riding became one of her favourite pastimes, along with playing badminton. Renuka's red-and-white Standard Herald car was familiar to residents of Matunga, where she lived as part of the growing joint family of Shroffs, with 17 members at one point, learning and living the qualities needed to adjust in a home with only two bathrooms and one toilet between all the members. Fortunately, those qualities of tolerance, respect, patience, teamwork and togetherness set the standard for all the younger children.

Being a chemistry graduate from Bombay University in the sixties was a great accomplishment. She was very much a part of her father's experiments, working in Excel for four years after her graduation, and he believed she would always continue to be part of his work. She may have known of the uglier side of the uses of science during the war years and was convinced that science should be used for the good of the common man, a sentiment she picked up from her family and her father in particular. Intelligent, observant, spirited and kind, she mingled with the workers and guided them

Happy memories... Renu could control and ride the gyrocopter.

on their jobs, just as her father would have liked his children to do.

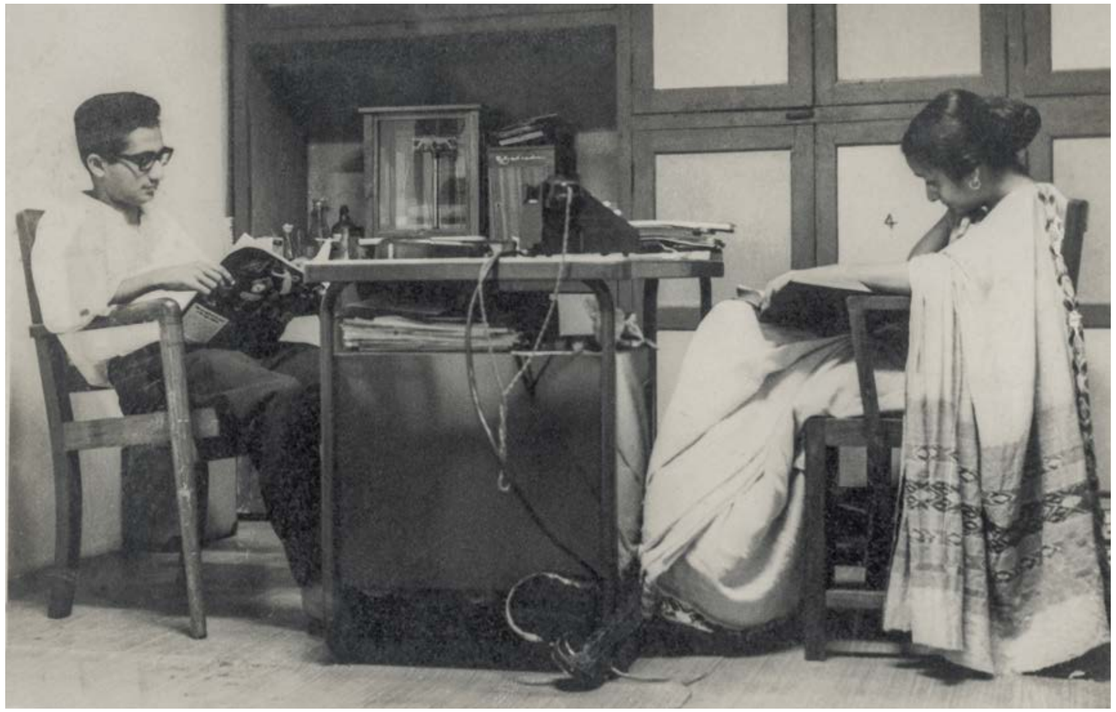
At a young age, she was able to understand chemical processes and made contributions to Excel's manufacture of oxalic acid and acrylic sheets. She also learnt "new management sciences" from Prof. Shone, a management expert from the UK. On a visit to Switzerland, she was able to understand the process involved in manufacturing hydrocyanic acid within two days! She also picked up new management techniques such as industrial engineering, stores and inventory management, and researched time-motion studies.

However, C.C.'s visions for Renu were dashed. Within a week of her marriage in 1964, she suddenly developed meningitis —a galloping disease—and was gone. The shock of this sudden tragedy deepened C.C.'s determination to apply himself, with even more interest, to science.

Renu, clad in her favourite attire—skirts, with Baifoi.

What remains today is happy family memories of her, accompanied by black-and-white photographs. But what also remains, in Excel's memory, is the pivotal role she played in some of the breakthroughs the company achieved.

The indelible mark that she left on her family members is such that, even today, whenever Kaka finds a young bright girl with a spark, he addresses her as "my Renu".



Ashwin and Renu in the factory.

Though her journey was brief, Renu left an indelible mark on her family and colleagues.
Her contribution to many of Excel's breakthroughs was pivotal.

A Day in the Life of Ashwin Shroff

Chairman, Excel

How to bathe? Atulbhai took this empty bottle and filled it with the limited water available. We sprayed ourselves with it, then wiped ourselves clean. Frugality saved the day.

Ashwinbhai

A 7.00 a.m., dawn hovers over Ashwinbhai's sea-facing home, as he offers us bowls of hot *pauva* and tea. From the wall behind him, a happy collage of three generations of his extended family smile down at us. We are leaving for Lote Parshuram, where Excel Industries has a chemical plant. Today is **World Environment Day**, and he reveals he has done his bit.

"Usually, I limit my bath water. Today, I managed with about five litres."

We are not sure how to react. Are congratulations in order? The statement is delivered in a matter-of-fact tone, as if this is probably the kind of effort that the rest of the world is also making.

The journey takes around five hours. A.C.S. points out landmarks in the landscape and regrets that he has not climbed these hills. Nearing the Roha site, he remembers cousin Atulbhai, with whom he had made his maiden visit to a then barren Roha. He looks for the small plastic pesticide spraying bottle which he has brought.

"There was no bath water when we reached Roha," he recalls.

"How to bathe? Atulbhai took this empty bottle and filled it with the limited water available. We sprayed ourselves with it, then wiped ourselves clean. Our innovation skills were intact!" His laugh resonated with affection for Atulbhai.

His mobile phone suddenly rings, demanding attention. Excel Crop Care Ltd, an important company within the larger Excel Group, has just been divested to a Japanese company, but the process is not yet finalised and journalists want an early edge.

"Yes, I understand," he speaks into the mobile. "But I'm travelling. The signal may not be reliable. I can give you the number of one of our directors who will talk to you." He messages the number.

Ashwin Shroff, Chairman, Excel Industries.

We ask about Excel's exciting new forays.

"Ravi is the expert on pharma. Why not talk to him? And Dipeshbhai can tell you about our Marine Chemicals plant in Dhordo." He redirects the limelight to others. But something is on his mind. "You see, I have been thinking about the sale of erstwhile Pesticide Division of Excel that became Excel Crop Care Limited. Excel was the first Indian company to make pesticides almost 60 years back.

We ask curiously, "Is that the only need of farmers?"

"No. There are many other needs of the farmers and of agriculture. Excel Group can still address them—for example, improvement of soil and much more. And so, by disinvesting in Excel Crop Care, we are not disadvantaging farmers. Today, others are providing similar products and facilities. We can move on to newer ventures whether through commercial products or through NGO activity."

He rests his case. His discourse is not about profits. It is about farmers. Their needs.

Taking notes is easy. His speech is measured, the flow logical. Ideas cluster neatly, as if paragraphed in his head. He too has diligently made notes of the homework we demand from him. His pockets and office whiteboards reveal mind-maps. "He is the thinker"—we recall his wife, Ushabhabhi, telling us—"and I am the doer!"

We arrive at the Lote Parshuram site.

A group of the senior management moves forward to greet us, but A.C.S. himself makes the introductions. We plant green saplings, as his family members have done over the years on their visits. We are then ushered into the common canteen, where everyone

'Save that shot!' Ashwinbhai with Kaka.

Ravi, Ushabhabhi, Ashwinbhai and Hrishit. Is Anshul taking the photo?

Attending to work even on a Sunday.

eats the same meals. Hierarchies are obliterated here, as in all of Excel's plants and offices. In Excel's Mumbai office, waste food is converted into manure. **Waste as a resource**, we recall.

The bulk of the day is filled with voices. Employees talk about themselves and Excel. Ashwinbhai moves away, careful not to let his presence inhibit these voices.

We then visit the chemical plants with the hard hats—our mandatory safety precaution—bobbing on our heads. The plant supervisor points out the plant structures, chemical drums, cylinders, piles of coal. Ashwinbhai adds stories as footnotes. An elderly worker walking past us recognises his Chairman and touches his feet. A.C.S. grabs his hand and shakes it firmly.

"*Sab theek hai*? (Is everything all right?)"

"*Ji, Saab*! (Yes, Sir!)"

A flashback to his own cousin, Atulbhai, touching A.C.S.'s feet, although he is less than two years younger. A flash forward to A.C.S. touching Kaka's feet in Kutch, when we meet him later.

Finally, we return to the conference room and sit down. An employee approaches Ashwinbhai and holds out his hand.

"Sir, your hard hat?" It takes a second for Ashwinbhai to respond.

"Ah, yes. No disasters in the boardroom," he quips, taking the hat off and handing it back. We all relax into laughter.

During the ride home, we ask about any 'wow' moments he has had.

He does a mental scroll-through.

"One of the wow moments in my working life was developing 'Flowcel', a chemical that improved oil flow, developed for the first time in India, to cater to the crude oil fields, a relatively young industry in India and vital for the Indian economy."

On our way back to Mumbai, we feel the need for a "bio-break", as A.C.S. tactfully puts it. A restaurant along the road looks promising. We alight. The toilet is barely serviceable; the previous user has not been careful. We manage, and then it's Ashwinbhai's turn. He emerges, washes his hands with soap and talks quietly with the manager. We suspect something. We must ask.

"Ashwinbhai, did you just clean the toilet seat?"

Point blank.

He pauses, nods his head briefly, enters the car and changes the subject.

In Mumbai, he has already arranged for another car to take us home. We have spent a whole day with the Chairman who wears his crown lightly. We have seen how meticulous he is, experienced his hospitality and impish jokes, watched his warm dealings with every rung of the human ladder in his chemical plant, and come to know that he is close to tears when he remembers his forebears. But have we got it all? Surely there's more? Some vital curtain in his personality that we have not drawn back yet? We don't know; perhaps we never will. How do you fit his 5-feet-3-inch frame into the word "enigma"?

"Now this is Yours…"

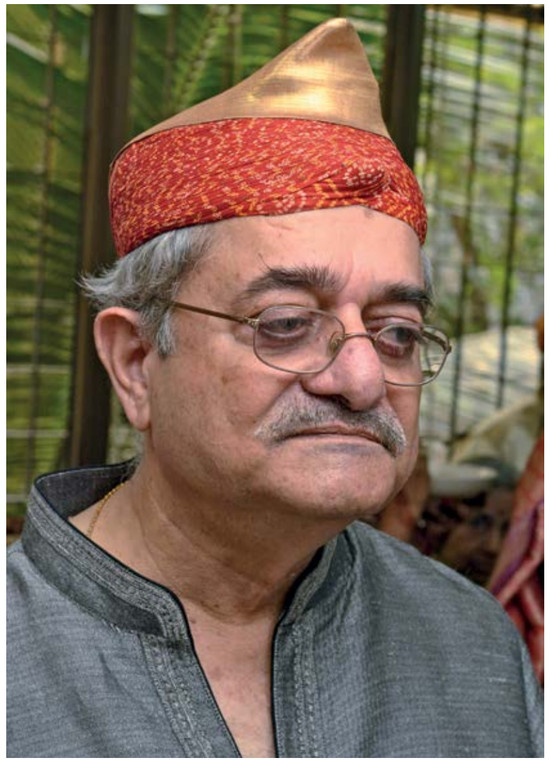
Dipesh Shroff Talks about Atul Shroff

Atulbhai

Dipesh Shroff is the son of Kaka, Kantisen Shroff. His voice falters slightly, as he tries to place the year that his elder cousin, Atulbhai, was born.

"I was born in 1960, but there was an age difference of over 10 years, and so Atulbhai has always been a mentor for me in many ways…" he recalls.

Atul Shroff, son of Govindji Shroff, never hesitates to mention his limited educational qualifications; indeed, that is a big part of his self-introduction! And for any discerning person, there is a tremendous sense of justified pride when a person gains business and personal achievement in spite of a lean academic background.



Atul Govindji Shroff, MD, Transpek Industy Limited.

"I can't describe how much respect I have for Atulbhai, and how much I have learned from him," confesses Dipeshbhai. "And that's apart from how I learned swimming, after he threw me into a water tank when I was young and jumped in after me to make sure I didn't sink!" He laughs at the memory of gulping in a few mouthfuls of water before he learned the skill.

"Atulbhai knew I was reluctant to join the business initially, but he gave me some sage advice. 'Get some exposure and experience in the company, then go back to the villages to work, if you still wish to.'

"Around 1978, when I joined the Project division, Atulbhai was my boss. He was heading the division. At the time, we used to take up projects for other companies, and I used to travel, for example, for Hindustan Insecticides Ltd to set up a Malathion plant in Rasayani, and also for another plant in Ankleshwar.

"He was a wonderful trainer! He always used to say that if people don't make mistakes, take it for granted that they are not doing any work."

Dipeshbhai laughs at the memory, then adds seriously, "But he could also get angry! So, I was the scapegoat… people would send me in first, to assess his mood, and sometimes, I took a bit of flak from him.

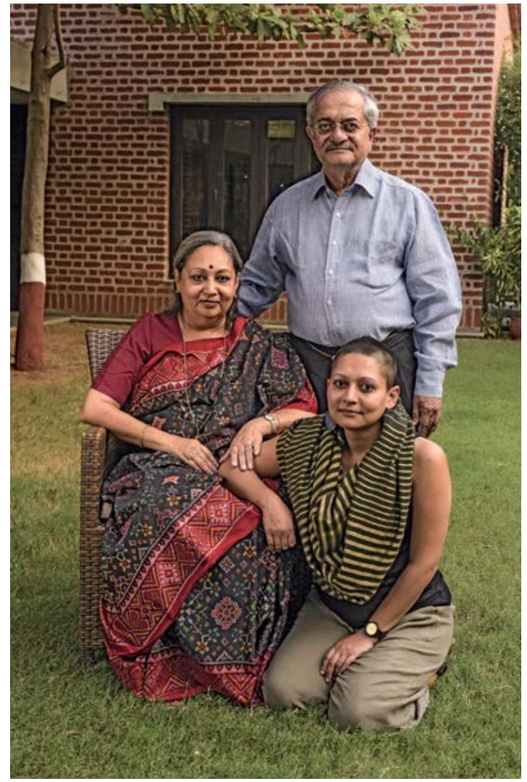
"In Bhavnagar, he gave me some excellent advice, which I use even today. In the office, there is an organisational chart, displaying the hierarchy of staff members. 'Don't look at it, because the company doesn't run on charts. Go and see who is actually running the company… they are the real power centres.'

"In the early seventies, when Atulbhai was a young man engrossed in the company work, his father, Govindjibhai and Kaka asked him to recruit fresh young graduates from IIM, XLRI, and other prestigious institutes. He says he hardly understood how he managed this, but he hired about 18 young people then. His choices were justified. Some of them went on to lead companies in the group. N. Sukumar in charge of Hyderabad Chemicals, Excel's Ninad Gupte and S.R. Potdar are some of them.

"Atulbhai mentored many people. He ran training sessions that were a mix of all kinds of wisdom used in management. I enjoyed them and brought my friends to them too. I was not a very easy person to mentor. I had my own contrarian views and was often vocal about them. But in spite of his seniority in years and experience, Atulbhai respected them, and handled me very gracefully. That's a quality I deeply admire about him."

Dipeshbhai talks about their days in Bhavnagar.

"I seem to have become a 'turnaround' specialist. When the Bhavnagar site, the largest site of Excel, was going through very difficult times, Kaka and Govindjibhai called me in to help. I was young at the time, and I can only guess the amount of faith the family must have had in me! Eventually, I managed to turn it around, and we were able to make it profitable. Atulbhai gave me full support throughout, and soon after, I was given a salary raise. Do you know what Atulbhai told me then? He said, '*Aa pagaar vadhyo, ey tension levano pagaar chhe.* (Now that you are part of the management and not just an engineer, your pay is given for you to take on tension.) So, let the engineers enjoy what you were doing till now, while you enjoy the tension.' There is much humour around him; he is great fun to work with.



Portrait of the family: Atulbhai with Shrutibhabhi and daughter Vishwa.

"I was inducted at the board level in Transpek quite early, during my 30s. I had proved myself in Bhavnagar, so Atulbhai called me in to turn around Transpek, in 2001 or 2002, when it was making losses.

"I enjoyed that kind of work, because it meant breaking rules, creating disruptions! But Atulbhai must have gone through so much turmoil! I suggested that he sit patiently and wait. Atulbhai made decisions that I reversed, but I must say that he accepted my interventions with complete trust, which also made me want to rise to that level…he was a great moral support."

Dipeshbhai pauses with happy nostalgia.

"But he is a '*raja maanas*', a lover of the good life. I remember he loved fancy cars. Once, he modified his car, spending time and going to great lengths to make it like a sports car. When I saw it, I fell in love with it. Atulbhai saw this and just left it there with me, casually saying, 'Now this is yours.'

"I was so uncomfortable! Atulbhai had not even enjoyed it properly, but he would not listen to my protests. What can I say? So large-hearted…"

Dipeshbhai becomes somewhat sombre.

"There was a very sad time when his first daughter passed away when she was a child. But can you guess the strength and courage of this man? The very next day, he was in the office, at his desk."

Today, his second daughter, Vishwa, engages with art. He involves himself more in the projects that his wife, Shrutiben, undertakes. An underlying stream of "spirituality" has become prominent in his life. But his earthy humour and wisdom is available to anyone who wants to benefit from it.

"He's the Risk-Taker"

Atul Shroff Speaks about Dipesh Shroff

Dipeshbhai

"Dipeshbhai always regarded me as an elder brother, right from childhood," Atulbhai starts off. "I was born in 1947, and he in 1960."

Atulbhai is the son of Govindjibhai Shroff who was the younger brother of Excel's founder, Champraj Shroff. Atulbhai reminisces about his younger cousin, Dipesh Shroff, son of Kantisen Shroff (Kaka).

"He never really wanted to join the company. He went away, studied civil engineering, got a job. He went to Kutch and joined our NGO, Vivekanand Research and Training Institute. My father asked him to come back to the company, but I think he wanted to prove himself. He kept going "out on the tide", and we kept pulling him back, till he surrendered and came to Excel. Then he gave himself whole-heartedly to the work in the company.

"In our methods, we were like chalk and cheese, so completely different, but there was so much honesty, trust and affection that we could go to any lengths for each other… *ek beeja maate mari padiye*! We also had some ways in common; we would let our people make mistakes, as long as they were not major blunders that transgressed governance and policies. Making mistakes is the best way for people to learn.

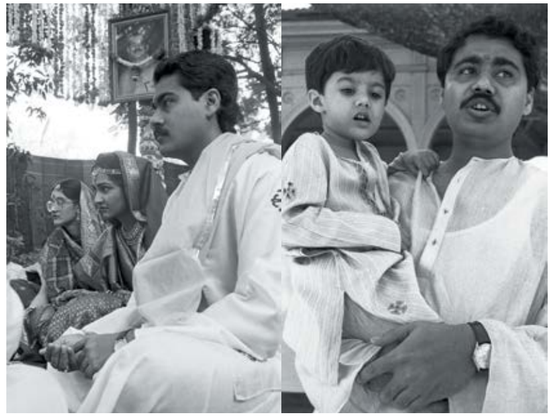
"Whatever I pointed out to him, in terms of ideas or projects, he went deep into. And in many ways, we are complementary to each other…besides, Dipeshbhai's father, Kaka, was my mentor. He showed me how to study different subjects and how to amplify my skills. I have learned a great deal from him."

Has there been any incident that brings out a quality about Dipeshbhai? Anything that Atulbhai has experienced about him that is very telling?

"Of course, there are several. At one point, Transpek was facing difficulties, and I asked him to come and help us out. He came and stayed for two years! He managed to sort out the big as well as the minor issues. And he did this with his usual enthusiasm. He is the kind of person who, once he gives a commitment, never backs down. He plays his part with good humour and smilingly, and everyone likes that!

"Yes, he takes risks, and a business is all about risk-taking. But the way we do it in the family is to ask each other if a project or an approach sounds all right and feasible. We are open with each other; we talk to each other frankly. Since prior 'homework' is always done, it's not difficult to see each other's viewpoints. We usually agree and move ahead quickly, supporting each other whenever needed.

"Dipeshbhai has taken major decisions that have impacted the business as well as his personal life: decisions about Dhordo, even the logic behind the sale of Excel Crop Care. We had several meetings about the latter, which also partly hinged on the intentions of the next generation of Shroffs, who might have different business ideas and courses to chart. We stood behind him and thought this was a good proposal; we gave him our backing."



Left: **Dipesh Kantisen Shroff and wife Preeti Shroff at Hemal's wedding and** right, **Dipeshbhai with son Chaitanya.**

Putting up a marine chemicals plant in a remote and harsh desert area like Dhordo must have caused the family some heartburn?

"Dhordo was Kaka's dream, which Dipeshbhai helped him fulfil. I remember when he went there and stayed in a small grass structure that cost a mere Rs. 1,500 to build! He can stay as comfortably in a place like that as in a five-star hotel in Paris, and do his job with ease. And what's more, he is so congenial, he knows how to make others equally comfortable!

"Dipeshbhai had seen how hard his mother, Chandaben (Kaki), had worked with the women in Kutch who embroidered for Shrujan. I must add here that the Shroff ladies have achieved so much in their own right and in different fields, and have also given us tremendous support… in fact, they all deserve awards for this! But I do feel that Kaki's work must have influenced him. He knew the only way to stop the local people from migrating was to put up an industry, give them confidence and a reason to be aspirational. He stayed there, recruited some good, devoted people, and trained them to operate the plant. In his case, it's not a question of mere motivation; it's to do with *inspiration*!"

Atulbhai laughs. His affection is palpable. He himself has faced many tough situations together with wife Shrutiben, in Roha as well as during a strike in Transpek.

"Dipeshbhai, like us, has been influenced by our grandparents. Our grandmother told us 'not to ask God for fortune, but to be good, to stay together, and to give.' And she did not believe in pretences or rituals. He was only nine-years-old when our grandmother passed away, but he remembers this.

"All of us cousins are so different, but we have learnt so much from each other: Shashubhai, Rajjubhai, Kishorbhai, Ashwinbhai…"

And what inspires Atulbhai today? Community service. Using older ways, teaching farmers to use natural fertilisers. Also using the newest research in the world with microbes and vermicomposting for human waste, along with vermiculture biotechnology for wastewater treatment.

"Why not extend this to help clean the Ganga?" we ask.

"We have already given a proposal to Delhi. Delhi's Chief Minister and some of Maharashtra's ministers have drunk potable water from Transpek's water purifying plants," he responds.

A bit of inspired thinking runs in the family…

Dipesh Shroff was Managing Director of Excel Crop Care Ltd till October 7, 2016. Currently, MD of Agrocel Industries Limited, he now lives and works in Kutch.

Carrying the Baton

Ami Shroff on the Shrujan Legacy

"The thought of assuming Ba's mantle makes me nervous. The legacy and the magnitude of the tasks before me are daunting, sometimes overwhelming…"

We are talking to Ami Shroff about steering Shrujan without the guidance of her mother, Chanda Shroff, whom she called Ba (generally known as Kaki by everyone), the founder of Shrujan.

"It has not yet been a year since Ba's passing away. I miss her at every step," Ami says.

"I was born five years after Shrujan was incorporated. It has been an integral part of my growing up. I have seen it go from strength to strength. From just 30 women in 1969, today, it is a 4,000-member community spanning over 120 villages. Its objectives have expanded. While Shrujan aims at providing a platform for artisans to earn a livelihood, the Living and Learning Design Centre (LLDC) has a larger agenda, that of 'Preserving and Reviving the Craft Culture and Tradition' of the Kutch region. It is a first-of-its-kind, *kaarigar*s-or artisan-dedicated, multidimensional craft education and resource centre.

"By the late seventies and eighties, the fine Kutchi embroidery would have vanished if Shrujan hadn't come into the picture."

Ami talked of her initiation to the Shrujan legacy and Kaki's grooming.

"Ba groomed me in many ways. She inculcated in me the understanding of receiving goods in return for money. She would give me money and send me to buy vegetables, cautioning me to get fair value for what I spent. Once she gave me alms for a beggar. Innocently, I asked her, what will he sell us? That was my first lesson in understanding that often **fair exchange went beyond calculations.**

Taking the Shrujan legacy forward, Ami with the artisan sisterhood.

"While on the one hand, I had to work hard to understand Shrujan and what it stands for, on the other, it had always been a part of our dinner table conversations. When I joined Shrujan full time, around 1998, my mother was by my side. She was our guide and mentor at every step we took. It is her work, her ethos, and her vision that was and is ingrained in each and every person at Shrujan. She worked as a family member with each artisan that she interacted with, from day one, and that is the example we follow today.

"Now she is no more. Yet, she is always present. At every step, I have a conversation with Ba. I ask myself, how would she have done it? But I can't wear her shoes, can I?

"The commerce was all in Ba's head. I am still clueless about that… and perhaps a little intimidated by the business angle of things. But I also know I will learn. I will not let Ba down. I have to carry her dream on my shoulders.

"Suddenly, Ba would say, we need to start work on 120 new sarees. And I would be scratching my head. There was no order around the corner, no exhibition on the horizon for which we needed to build stock… But by the time the sarees were finished, they were needed. Things always fell in place at the right time. Somehow, I never really figured out how she anticipated future needs, and this is what fazes me today.

"Ba could think ahead to manage the entire chain—sourcing the raw material, developing the designs, anticipating trends and market demands, allocating the work to the women, looking after their small and big needs, ensuring quality, working out the logistics of production, managing production schedules, making timely payments to the artisans in far-flung villages, and so much in between, not to mention the larger goals such as preserving the craft, reviving lost stitches and traditions…

The Living and Learning Design Centre—a place for preserving, promoting and celebrating the crafts.

"It's interesting to note that some of the women artisans have no formal education and, yet, are masters of a special form of embroidery called *soof* that involves mathematical calculations. The entire embroidery is based on calculations that they keep doing in their heads while working on multiple pieces. It is amazing to see the kind of skill they possess. Shrujan is helping them preserve and enhance this skill and taking their work to urban and global audiences."

"Ba developed long-term relationships with everyone she worked with, whether it was the artisans, the suppliers or Shrujan's clients or well-wishers. I experience this everywhere I go. The weavers in Hyderabad, whom I recently visited, expressed their gratitude for what Ba had done for them. They were very cooperative and offered me a long credit period."

Ami takes us back to the days when she started working with Shrujan.

"I joined Shrujan in 1998 as a project coordinator for the Pride and Enterprise Project. It was an effort to revive quality, to showcase examples of the best the craft of embroidery offered. The panels worked as a catalyst in exciting the young girls' interest in their heritage.

"Ba's focus was the women and their well-being. She was geared to work and give more work to women. But the younger members of the team and I felt that the special qualities of Kutchi embroidery, the traditional patterns and ethos of each stitch, and the conventions and stories of each community needed to be documented. This would help to preserve the craft and also become a resource for posterity. But this extensive work required money and a dedicated team."

To those who will, ways are not wanting.

One of Ami's friends, a colleague who was very familiar with Shrujan's work, suggested that they should apply for the Rolex Award. Applying for the award entailed detailed, time-consuming documentation.

"Unfortunately, we did not get the award. However, the Rolex representative who had come to study Shrujan's work was very impressed by Shrujan's endeavour to preserve the craft through the Pride and Enterprise project. She suggested we apply again the following year.

"We were reluctant to go through all the tedious paperwork all over again. But she coaxed us, and we did apply a second time. This time, we received the award. Ba rightfully said, 'The award belongs to my artisans'. This was in 2006. Ba accepted the award and celebrated with all the artisans.

"She wanted to nurture true *kaarigar*s who were proud of their heritage and for whom their work came straight from the heart. She did not want the craft and craftspeople to be commerce-driven at the cost of quality. 'We want to nurture artisans, we want our artisans to excel in their *kaarigari*.' Ba always thought big. She wanted to do for all the crafts of Kutch what she had done for Kutchi embroidery. In the process, the concept of the LLDC evolved. So much work has gone into developing the concept and planning ahead… plan for the next five to seven years has been blueprinted."

The name "Living and Learning Design Centre" captures two core beliefs of the Shrujan Trust. The first is that quality and design is the foundation of any craft; therefore, design innovation will be a key commitment of the LLDC. The second belief is that learning should be an ongoing process. Learning is living, and living is learning. The LLDC is therefore committed to learning in different ways for different sections of people, be they craftspeople, tourists, art and craft lovers, textile and design students, or members of the Shrujan Trust.

Set up on a 9-acre campus in Ajrakhpur in Kutch, the LLDC is a place for preserving, promoting and celebrating the crafts. It is also a place where the skill and potential of practising *kaarigar*s is enhanced so as to enable them to earn a dignified and prosperous livelihood. The museum complex, which was inaugurated on 23 January 2016, celebrates not only past achievements, but also the mastery and creativity demonstrated by the living legends of the crafts.

Ami holds in her hands both Kaki's baton and her dreams.

Mischief in Her Blood

Usha Ashwin Shroff

Ushabhabhi

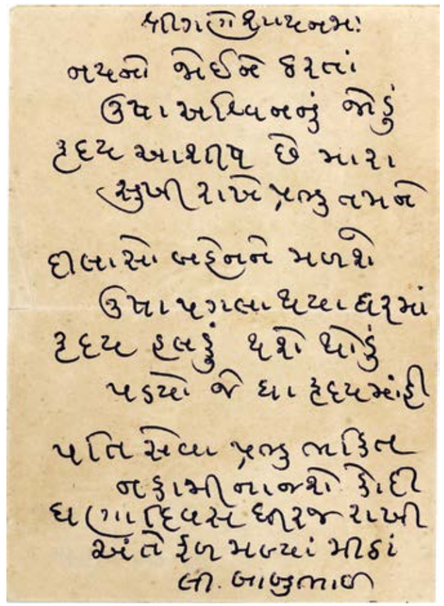
"She was mischievous as a child," says son Ravi. "Deliberately and intelligently mischievous!"

He is talking about his mother, Ushabhabhi, Vice Chairperson, Excel, wife of Excel's Chairman, Ashwin Shroff. One of the main triggers of this mischief lay in her birth; she has a twin sister, and the lookalike factor caused their mother to tie different coloured ribbons in their hair to distinguish the two! However, they got the better of this system, untying the ribbons and exchanging them to deliberately confuse those around them!

Ushabhabhi was born into a well-known business family, the Khataus, a fact that she has always been proud of. From her time at the prestigious New Era School, she gained knowledge and good values in equal measure.

With her marriage to C.C.'s son Ashwin Shroff in 1967, she entered both the Shroff family and Excel Industries. She had always been forward-looking and ambitious, interested in business and with an acumen for it. She put her M.Com. degree from Sydenham College to good use in the accounts department in Excel, where she began working in 1969. Computers were just entering people's lives in the seventies, and Ushabhabhi handled the induction of this 'electronic brain' to help in accounting and preparing payrolls. Her core strengths have been corporate strategy, taxation, and business development.

She was always a good administrator. She helped set up the C.C. Shroff Research Institute in memory of her father-in-law, Excel's founder. She also went on to set up several companies under the umbrella of the Anshul Group of Companies, which involved the manufacture of chemicals, indenting, leasing and finance. She has been a contributing member of the boards of several of the Group companies and is also on the Governing Council of the NGOs, including the VRTI and the C.C. Shroff Self Help Centre.



Twinkling eyes and wedding wishes: Usha and Ashwin Shroff.

Ashwinbhai remembers her tenacity when she struggled to balance the accounts in the early days. There was a time when she could not reconcile a difference of one paisa.

"Here is a paisa, put it in your accounts and don't fret over it!" Ashwinbhai had said, pulling out a paisa from his pocket.

The many facets of Ushabhabhi, at a family wedding, the mother (with son Ravi), and at the podium.

Still with that inimitable smile, she talks of how she used to take the family children for trips out of town, especially to the Excel factory site at Roha. Both, her children Anshul and Ravi as also their school friends still recall nostalgically these trips. Ravi adds: "It was because of these trips that we bonded with our cousins and other children whom we met there."

Ushabhabhi is a firm believer in pursuing education and has guided young people from the Excel *parivar* to pursue higher studies. When Ravi unexpectedly decided to stay on in the US in Boston to pursue Masters in Chemistry instead of returning after a short course, she actively supported his decision.

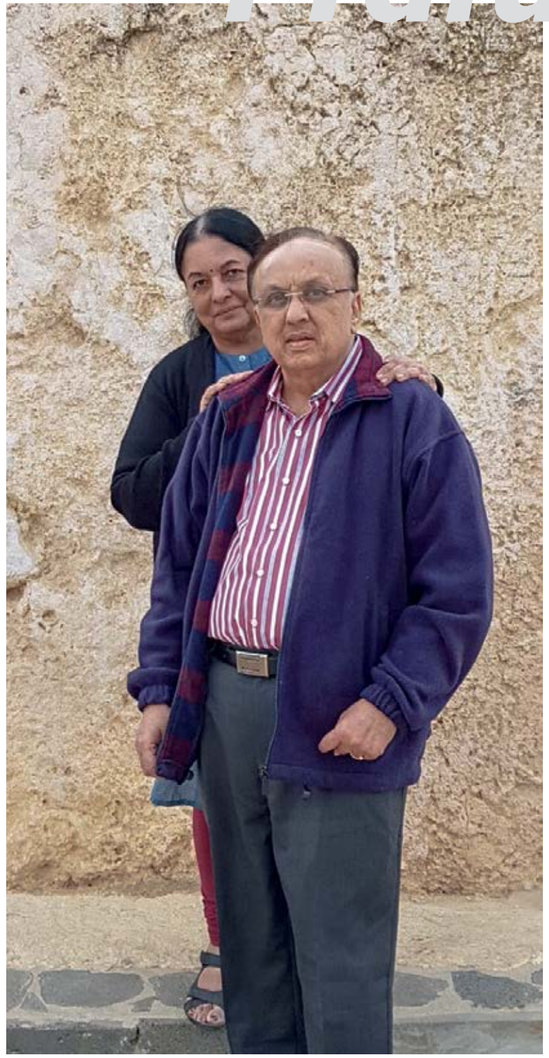
Senior staff in Roha and Lote—including Vidya Degwekar, Head of the accounts department in Roha—remember her with warmth and recall how she was always present for important events and functions, not only for Excel, but in their own lives, whether it was at weddings or festivals.

Ushabhabhi's involvement in Excel has fortuitously blurred business and family distinctions.

Excel is a Level Learning Field

Praful Saraiya

Prafulbhai



Chetna and Praful Saraiya.

"I was very fortunate I had the opportunity of working with three senior stalwarts—Bhai (Govindji Shroff), Kaka (Kantisen) and S.D. Shroff—at Excel during my first decade there from 1972 to 1981. I believe the best classroom in the world is at the feet of elders. I gained great insight into project and materials management."

"With this grounded initiation, I took charge of two virtually 'headless' organisations, Parul Chemicals Ltd and Shroffs Engineering Ltd. They were more in the nature of extensions or fabrication workshops."

Praful Saraiya, married to Chetna Shroff, daughter of Govindjibhai and Shantiben Shroff, went on to make great headway when he took over the reins of those two companies. Parul Chemicals grew from a turnover of Rs. 28 lakh to Rs. 28 crore, while Shroffs Engineering grew substantially after Prafulbhai's introduction of a new business line, **pump manufacturing**. This company's turnover at its recent sale was Rs. 65 crore. "We sold it for want of a succession line and my failing health," Praful tells us.

"Excel is a level learning field. It reinforces your belief in value-based business. For Excel, it was more about fulfilling the needs of a young nation's self-reliance by developing import substitutes that were affordable, than about profits. It ties in with what Henry Ford said, 'A business that makes nothing more than money is a poor kind of business.' What makes me very proud and happy is the fact that the family's ethical standards have also been imbibed by the younger generation."

Balancing Values with Professionalism

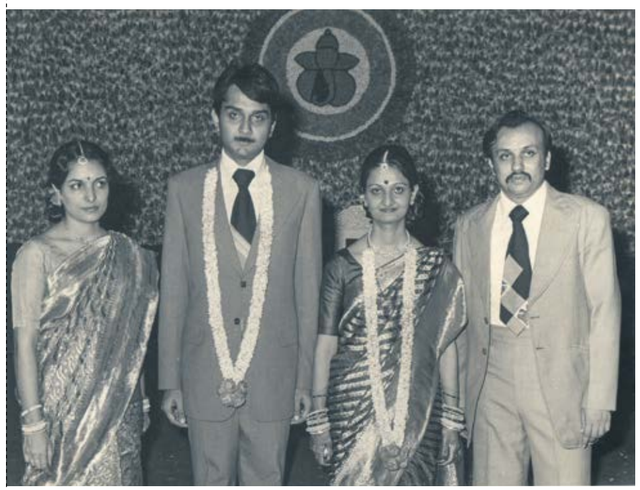
Tushar Dayal

Tusharbhai

Till the mid-seventies, Excel was a family-run business. Initially, the employees included those with little more than native intelligence, who were picked up and groomed for the job. However, in the mid-seventies, Bhai and Kaka (Govindji and Kantisen Shroff) anticipated the need for inducting professionals into the management cadre in view of the growing expansion.

Tushar Dayal, a chartered accountant, was both a professional and a member of the family. He is married to Hiral, daughter of Govindji and Shantiben Shroff. He was deputed to Punjab Chemicals, a joint-sector company of Excel, with Punjab government as the GM. However, in 1986–87, Excel made a loss for the first time, and Tusharbhai was called back to handle the projects and finance portfolios. He contributed to the turnaround in the company as a key team member by overseeing working capital management.

In 1992–93, two other companies were started as Transpek's subsidiaries: Parul Chemicals Ltd, managed by Praful Saraiya; and one that Tushar managed as its CMD, TML Industries Ltd.



From the wedding album, Hiral and Tushar Dayal, centre, flanked by sister Chetna on the right and brother-in-law Praful Saraiya.

Tushar's contribution to developmental work has been significant. His vision and active involvement has shaped the development programmes initiated by Aatapi Seva Foundation, which undertakes TML's CSR activities. Moreover, he has also served as trustee/adviser to other NGOs such as Hunnarshala & VRTI in the past. Tushar has also been actively involved in the Vipassana movement.

"The challenge before us is not how to make community development more of an industry, but how to do so carefully and consciously, without sacrificing what makes our NGOs different and ensure that they are run professionally. The Excel Group has the experience of running both companies as well as NGOs and, hence, has the advantage of understanding the nuances and strengths of both types of organisations."

Justifiably, the immaculately dressed Tushar Dayal is considered the intellectual of the family. Articulate and well-read, he always has something to share that is thought-provoking.

Tushar Dayal enjoys a tea break.

A Penchant for the New

Shashikumar Shroff

Shashubhai

The eldest of the Gen-II Shroffs, Shashikumar—or Shashubhai as he was generally known—was the son of Devidas Chatrabhuj Shroff (Devubha).

What was fortunate for Excel was that Shashubhai chose to join Excel very early, preferring that to academics. An old, black-and-white photograph (in the old Excel book) shows Shashubhai engaged in plastic processing in Excel. His innate engineering skills drew him naturally towards constructing plants and equipment rather than dealing with core chemistry, and he kept close company with Excel's brilliant Amrut Lad (the *mistry* who constructed Excel's plants), and others with a fascination for engineering, as they enhanced their skills in the company together.

He was helpful in many diverse ways. Kantisen Shroff (Kaka) often jokes, "Shashubhai had the initiative, while I had the 'finitiative'!" His initiatives were useful; he helped procure technical documents from the US Public Research Institute, which proved crucial to Excel's planning and construction of a Phosphurus plant. Although Shashubhai himself had not studied management, he took a great deal of interest in new engineering as well as management techniques and was instrumental in bringing Dr N.H. Attreya to Excel and the Shroff family. This allowed many colleagues to understand subjects such as industrial engineering, time-motion studies, which were new channels to improving productivity and human performance. The Shroff family's association with Dr Attreya brought in much friendship and goodwill, which continues even today.

"He was fond of driving"—Ashwinbhai recalls—"and he was the one who taught me, since he was an excellent driver! He was also fond of keeping a diary and encouraged others to do the same. He was generally fond of the good life, like good clothes, latest cars."

He found his life-partner in Shailabhabhi, earlier Pramila Dossa, who was from the well-known Dossa family of Pragji Dossa and closely associated with old Gujarati theatre and the world of arts.

After a family restructuring, Shashubhai nurtured STS (Shroff Technical Services, a consultancy), and PCPL (Punjab Chemicals and Pharmaceuticals Ltd), both successful companies.

He also nurtured Excel Phoschem, a unit making Phosphoric acid, an ancillary company to Hindustan Antibiotics Ltd, a PSU.

He passed away in 1997, relatively young, around the age of 63.

The Excel team with Shashubhai in the centre with dark glasses.

Shashubhai and Shailabhabhi.

The Power of Boldness

Rajnikant Shroff

Rajjubhai

What would you think of someone who wrote a letter to himself?

"I would think of him as a problem-solver who revelled in unusual solutions," said Ashwin Shroff with a chuckle. "The daily *dak* (mail) brought a letter or a postcard for the elders in the family, but no one wrote to Rajjubhai. This grave anomaly, thought Rajjubhai, demanded an immediate solution. Not one to be deterred, nor one who put himself at the mercy of others, Rajjubhai penned a letter to Rajjubhai…And then widely proclaimed that he had received an important communication in the daily *dak*.

"As a youngster, Rajjubhai would challenge us cousins to walk on the narrow parapet of our Matunga house," Ashwinbhai recounts.

"Rajjubhai, Rajnikant Shroff, today Executive Chairman and Managing Director of UPL (United Phosphorus Limited), the Indian chemical multinational, was always a daredevil who fought situations upfront with a panache that could sometimes give you goose bumps, but always left you smiling in admiration.

Dipeshbhai, Dipesh Shroff, the younger of the Shroff cousins, seconded this, summing up the quality with a colloquial phrase,

A younger Rajjubhai steals a quiet moment with Baifoi.

The young Sandra, wife of Rajjubhai.

"*Saami chhaatiye ladta, kyaare dare nahi*. (He was never afraid to take on his opponent head on, when he knew he was right.)"

"In 2015, Rajjubhai, as Chairman of Crop Care Federation of India (CCFI), filed a defamation suit against Greenpeace India demanding Rs. 50 crore (approximately $8 million) in damages for spreading false allegations in its August 2014 report on the Indian tea industry. The Greenpeace report had said it had found pesticide residues in various leading tea brands analysed by it."

Rajjubhai was quoted in a leading newspaper as saying, "Greenpeace's effort to keep essential data away from Indian experts is a clear indication that the report is not just unscientific and fabricated but also done with malicious intent to harm the Indian economy at the behest of its foreign donors."

The industry body demanded a public apology from Greenpeace as well as withdrawal of the report, "…if it cannot make public all the raw data concerning this questionable study for scrutiny by Indian experts."

As a young adult on the threshold of life, Rajjubhai loved playing with chemicals. Phosphorus was his favourite, so much so that when he formed his own company, he named it United Phosphorus Ltd. Rajjubhai mastered red phosphorus and quickly moved on to the production of other chemicals for agriculture. In the 1980s, UPL started launching an avalanche of crop protection products and is now one of the leading total crop solutions providers in the world.

Back in 1970–71, Rajjubhai's start-up company began manufacturing red phosphorus with an investment of Rs. four lakh. At the time, a Swedish company that was making match boxes and using red phosphorus was incredulous. It wrote to the government that to make red phosphorus, you needed a minimum of Rs. 4 crore, besides an adequate know-how of the chemical industry, implying that there must be something fishy with this start-up. They made such a hue and cry that a team from the Director General of Technical Development (DGTD) and National Research and Development Corporation (NRDC) descended on the small town of Vapi. After carrying out a minute investigation of the plant, they reported back to Delhi: "This plant is safe and its project is fine." Just a year later, in 1972, the Indian government awarded the fledgling company the President's Gold Seal for R&D.

Reflecting on his journey, Rajjubhai recounted the influence his family and his early years had on him. "My father, Devidas Shroff, the eldest of the Gen-I Shroffs, expired when I was in college, but he left a deep impact on my life. My mother was religious, but my father always warned against religious rituals. '*Mandir na poojaari chor chhe* (Beware of the temple priests),' he would caution us. He insisted that we learn cycling and encouraged us to participate in outdoor activities. He coaxed me to join a camp organised by the Youth Congress in 1951 at a time when parents were not comfortable sending their children too far from home. I was privileged to contribute in a small way to building the legendary Hindustan Tibet Road with my *shramdan*, (voluntary labour) along with other camp participants." The road, Rajjubhai reminisced, "was an exquisite feat of human endeavour, on one of the highest ranges of the world. The tunnelling, partially done manually through rocky stretches—crossing huge rocks at Khimring Dhankh on the Hindustan Tibet road—speaks volumes of the determination and dedication with which the highway was constructed. It is still considered the largest stretch tunnelled for a road through the rocks.

"I even have a photograph with Indira Gandhi taken at Khatrala," Rajjubhai proudly tells us.

He reflects on how he began his career at Excel. He stayed in the factory and was deeply interested in the activities of the factory though still in college. "I am indebted to the library and the laboratory set up by Pappa (C.C.) at Excel. They instilled in me the pursuit of knowledge through reading, experimentation and the counsel of experts. C.C. counselled me to read up topics before my professors taught something in class, so that I was always ahead of both the professors and the class."

He fondly recalls sitting cross-legged on the floor and reading and researching with Kaka.

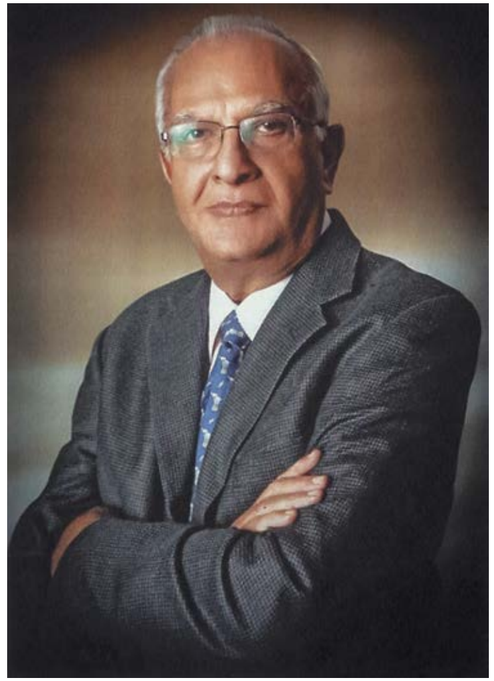
"Rajjubhai's leadership qualities and abundant enthusiasm and energy were evident from his early years and came to the fore during his college tenure, when he served a term as the GS (General Secretary) at Khalsa College," Ashwinbhai added.

"The hazards involved in manufacture never scared me. I thrived on the challenge of taming the hazards. I wanted to grow fast, and my sons want to do things even faster," Rajjubhai chimes in.

"I started with a capital of Rs. five lakh, and today, my company has grown to the strength of a conglomerate worth Rs. 13,000 crore, with plants and offices in as many as 30 countries and a corporate presence in 60 countries. I learnt from Kaka to recognise and respect talent. I have picked up talent wherever I found it, maximising on people's genius and 'minimising'—handling—their weaknesses. I do the same with plants."

Rajjubhai has taken over sick plants and turned them around. "The first was in 1994, a British chemical company that was closing down for want of funds."

Rajjubhai's first foreign outing was for the Mercuric Chloride Plant in UK, which C.C. Shroff had set up in the mid-fifties when the government had banned the export of mercury and mercury salts, which had a heavy demand in the United Kingdom. "I oversaw the operation of the plant with the assistance of Manchhu Warli, the unlettered chemical genius. It was Kaka who had identified his genius. When I branched out on my own, Manchhu joined me. He was an amazing problem solver who asked unusual and piercing questions. Whenever I went abroad, I took him with me. Today, he is retired and lives in his village, but we still send him his full salary."



Rajjubhai Shroff is the founder of United Phosphorus Ltd., a company established in a backward area of south Gujarat in the year 1969.

"There, on foreign shores,"—Ashwinbhai smiles widely as he speaks—"started his love for 'foreign acquisitions.'" Rajjubhai found his life partner in the UK. "Sandrabhabhi's (Sandra Evans, then) father owned the factory across the street! Sandrabhabhi has immersed herself in the local culture, communicates easily with the workers and local community, speaking vernacular languages—Hindi, Gujarati, Kutchi and Marathi with a confident élan."

A partnership in life and work: Sandrabhabhi and Rajjubhai.

Sandrabhabhi's active involvement and leadership in industry associations such as ICC, as also in social sectors such as health (chairperson of Burns Association of India), education (schools, Chemical Engineering Institute, School for Nursing) speak of her concern and contribution to society.

"Sandra has made a substantial contribution. After starting the factory, I went to Japan the very next year. Sandra would visit Vapi from Mumbai every week. Those days, even if you needed a good screwdriver, you had to fetch it from Mumbai. Sandra, who has shouldered various responsibilities ranging from the company's garden to its purchase department, has become an inseparable part of the organisation." She is Vice Chairperson of UPL.

Rajjubhai and Sandrabhabhi both believe that the prosperity of their company must be shared with not just the stakeholders but the society at large too. The company is engaged in several community projects. Rajjubhai has generously supported Shrujan's museum project, the Living and Learning Design Centre.

Even today, at the age of 82, Rajjubhai believes in seasoning everything he does with a pinch of boldness.

…And even God lends a hand to honest boldness!

The Handsome Man on the Shop floor

Kishor Devidas Shroff and Ranjan Kishor Shroff

K.D.S. and R.K.S.

Anyone who had met Kishor D. Shroff would probably have described him as a tall, handsome man, always carefully dressed and groomed, usually surrounded by a circle of friends.

This son of Devidas C. Shroff, who also lived in the joint family in Matunga, studied at Khalsa College, was fun-loving and owned a cycle and, later, a motorbike on which he often took his younger brother, Ashwin, for a spin. "But he always took care of me," recalls Ashwinbhai. "He was a loving brother." Like his brother Shashubhai, he too was fond of cars. "He accompanied Pappa (C.C.) and us on driving trips around India," Ashwinbhai adds.

Within the company, he thoroughly enjoyed being on the shop floor, interacting with staff and workers, attending to machine maintenance, cleanliness and orderliness. But as a young bachelor, he faced a problem. Being tall can cut both ways, as the family realised, when the time came to look for a life partner for Kishorbhai. Finding a tall life mate for him was difficult, but Jotuben, his sister, rescued the situation and introduced him to a height-appropriate, eligible girl who was brought up in Zanzibar (today's United Republic of Tanzania), East Africa. This is how Ranjanbhabhi became part of the Shroff family, and also one of the early supporters and colleagues of Chandaben Shroff in forming Shrujan.

During the family partition in the early seventies, Kishorbhai joined his brother Rajjubhai and helped him form United Phosphorus Ltd. He, along with Ranjanbhabhi, also set up the date palm project in Kutch.

Kishorbhai, inspired and encouraged by Ranjanbhabhi, was later involved in and dedicated to practising and promoting *vipassana,* a traditional technique of meditation. In fact, he passed away during *vipassana* at the Igatpuri Centre in 2001.

The tall and handsome Kishorbhai was an active promoter of *vipassana*.

A notable contribution by his family was the building of the guest house for the Vivekanand Research and Training Institute (VRTI) at Mandvi. Ranjanbhabhi has continued her pursuits of both *vipassana,* where she is a member of the governing committee, as also farming of date palm and other crops in her Kutch farm, Kinuwadi.

His life partner Ranjanbhabhi has continued promoting his passions—*vipassana* and date palm cultivation.

The Third Generation

A Conversation between Ravi, Hrishit and Chaitanya Shroff

Gen-3

Being born into a family business that has a long and adventurous history running into three generations can be a kaleidoscopic experience. There are cultural legacies to be continued, a new competitive ethos to contend with, new systems to be implemented, and tiered generations of employees to be coordinated. Some may feel torn between holding on to tradition and moving on to doing things in more modern ways.

And then, of course, there is the family network itself. How does one manage feelings, expectations and professionalism within the family?

Interestingly enough, the core Shroff family of today's Excel Group of Industries consists of three generations, each one comprising 3 brothers.

Gen-I: Champraj (Founder) Govindji, Kantisen

Gen-II: Ashwin, Atul, Dipesh

Gen-III: Ravi, Hrishit, Chaitanya

The other cousins of Gen-II, Rajjubhai (Rajnikant), (late) Shashubhai (Shashikant) and (late) Kishorbhai were initially involved but, later, charted their own courses, preferring to steer their businesses at speeds that suited their personalities.

The youngest three—Ravi, Hrishit and Chaitanya (the latter known to the family as Chikoo)—are not very far apart in years, but as far as experience within Excel goes, the work and the quality of the takeaways seems to have different facets for each one.

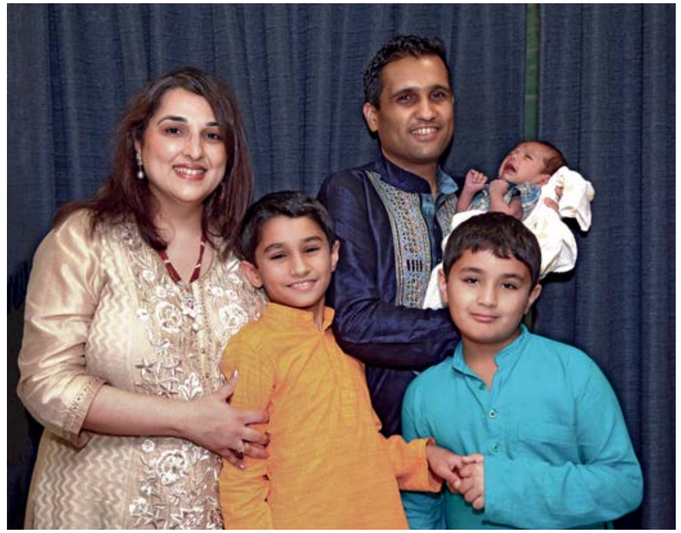
Ravi undertook formal education in chemical engineering in Mumbai and went on to Boston, ostensibly for a short course but ended up, by luck and chance, studying for a Master's in chemistry. He started his career in the family business under his mother's guidance at Anshul Chemicals Ltd (now called Anshul Specialty Molecules Pvt. Ltd). He is now the executive director at Excel Industries Ltd, moving purposefully into the pharma space with a range of penultimate stage pharmaceutical intermediates and APIs (Active Pharma Ingredients) for the healthcare industry. These are competitive alternatives to imported inputs. A dedicated and fully GMP (Good Manufacturing Practices) and API manufacturing plant stands at Excel's ISO 9001:2008 certified facilities at Lota.

Ravi

Hrishit

Chaitanya (Chikoo)

Hrishit studied to become a chartered accountant and joined his uncle Dipeshbhai in the agrochemicals business at Excel Crop Care Ltd. He moved between the plant sites Gajod and then Bhavnagar from 2007–13, and then to Mumbai, implementing best management practices, risk management, plant modernisation, product stewardship and building stakeholder relationships, eventually assuming responsibility as the Executive Director in Mumbai. He is now playing an active role at Excel Industries and its subsidiary companies. Hrishit has always been interested in understanding people and has established rapport with the Union.



Amrita, Ravi, with Parthiv, Shreyaan and Rishav.

He takes on the role of liaising, through his involvement in public relations.

Chaitanya was always interested in agriculture and went to Australia for his studies. He worked in Dhordo and Gajod in Kutch, and at the Bhavnagar site, taking on various functions including the scaling up of plant production and overseeing civil construction for bigger warehouses to store more products. He was appointed the director of Agrocel Industries Pvt. Ltd in 2014, and has now assumed central responsibility as the executive director at Agrocel.

All three understand the underlying balance of ownership and responsibility and are very conscious of their burgeoning roles within the companies. The themes remain the same, but they have to be relevant today.

They talk together.

Ravi: I went into the chemicals space, since you both chose to go into the Agro business. Do you remember those early school days, when you might have found me with my nose buried in a chemistry book when others were reading normal story books and novels? Strangely, that was my reading-for-pleasure subject. That's probably why I went to Boston later, and studied chemistry. Chemistry was in my DNA, inherited from Pappa.

Hrishit: That was something different about you! For me, around 1995 or 1996, my days at the Excel carpentry department were fun. Kaka sometimes asked employees to work here, because he felt it sharpened thinking. I made a piggy bank, and I think I made it so well that it couldn't crack open! Then I tried making a doghouse. It was fun. We also often went to Roha for holidays with school friends, and I think that was my first real association with the factory.

Chaitanya: My earliest memories are of watching dad at work when I was around three or four. And in Mumbai, during my summer vacation, the scientists at Excel taught me. Maybe my real association began when I started working at Amboli on Celphos with Mr Ashok Jain and Mr Yogesh Pandya. That was for about eight to nine months, just after I finished my schooling. My concern was somehow always with the farms: talks with Dada (Kaka) about geography during school days was what really triggered the desire to pursue agriculture. Sometimes, I wonder whether studying agriculture was the right choice considering the amount of time I have spent with chemists and engineers as against farmers…

Hrishit: Chikoo, after I finished my CA and came to work with your dad, Dipeshkaka, in 2006, he told me to unlearn everything, and he put me on the shop floor to learn afresh! Even while I worked on Risk Management and SAP implementation, he wanted me to see things as a layman, to learn from my gut.

Ravi: Yes, we were all going through different times. Just living and coping on my own in Boston built life skills within me, which I know will always stand me in good stead. I was lucky to have met Amrita while studying for my Masters. But returning to Mumbai and our loss-making company, Anshul Chemicals, was a pretty life-changing lesson in understanding the working of the company. We worked on it as a team and turned it around. The best part came several years later, when I realised the company would have to start paying taxes because it was finally making profits!

Chaitanya: Ravi, how many changes from our earlier years when we all got together at Diwali and you used to make us somersault over the mattresses till I tore my dhoti! You were always the ringleader when it came to playing pranks! I have only heard of the other pranks you and Hrishit played!

Hrishit: Oh, and look at us now! Ravi's the postgraduate in chemistry, I'm the chartered accountant and Chaitanya's the agriculturist "farmer" cum engineer! And now, after a decade of the Excel experience, I am firmly moving from being a "decimal detail" CA to one who views and utilises finance and accounts with an entrepreneurial eye.

Chaitanya: Yes. Dad believes that the key is in managing the people that manage the business! And the family are quite clear that they do not want the sons to automatically be heirs. No one should feel *baapni gaadi par besi gaya*… the position has to be earned and proved. We never had it easy. We worked hard, respected our seniors, and they taught us with affection. Do you all remember that when I came back from Australia in 2006 without a degree, I was employed at Transpek at entry level, as a "12th pass" employee? That's where my career with Excel began. And Atulkaka, to pep up my spirits, would tell me with great pride, "I am metric fail! You progressed further than me…"

Ravi: Yes, for me too, I started small in Anshul, getting my experience on the shop floor till I understood how the system functioned. But we did have good models in our elders. Grandfather innovated and made new products, Govindjibhai (Bhai) was the backbone of finance and accounts, and human resources, while Kaka put all this together in implementation, building a great company by developing indigenous skilled teams. So, all facets of each person put together made the company work. All these qualities made great teamwork for Excel, and we have inherited that legacy.

Chaitanya: Oh yes, when our pace of innovation was flagging, I remember how I went again and again to the seniors in the family to ask, "How did you do this…?", "What did you do when…?", "How long did you take to…?" I always wanted to understand their struggles and what solutions they had.

Hrishit: Hmm, I remember from 2007 to 2009, Dipeshkaka sent me to Gajod to understand operations, which also meant team building, site-and-infrastructure building, and improving product quality and output. It was an intense period, but we improved the product quality. Remember, Chikoo, how we worked together in Bhavnagar? That was another intense period!

Chaitanya: Well, Hrishit, you are the one with the best smile, and it helped so much during our tough times! Kaka said you are really good with people. Even though you are not a chemical engineer, the staff jokingly gave you an honorary degree!

Hrishit: And then, Chikoo, you started your agriculture studies again and you juggled that with work at Excel, and later took a

"Hrishit used to make us do somersaults till we tore our *dhotis*!" Ravi and Pratik.

sabbatical to study. You took some time off from work so that you could focus on studies and get the degree…Wasn't it in 2012 that you formally joined Excel Crop Care? You kicked off with scaling up Triazo, right?

Chaitanya: Good times with Dr Chaudhari in the Mumbai lab and better with me on the plant site… Remember, we were always in a hurry! I was running things on the shop floor, and you were running the office! We were just running, running! Our big success was to introduce new products and drastically improve plant utilisation… then to scale up almost all the plants to capitalise on opportunities, improve the inventory situation and set up the sewage treatment plant.

All done to get out of the hit we received from the ban on Endosulfan! And then, you moved back to the head office, Hrishit, while I took on the mantle of CEO and shouldered the responsibilities you had taken on in the office. That is when I could really appreciate what you did in the office! It was a nightmare to be cooped up in the office with so many managers! The good thing is we scaled up and recruited good people.

"I think I have become infamous for being a little whacky…"
Chikoo and parents Dipeshbhai and Preetibhabhi

Ravi: And while you both were rushing around madly in Gajod and Bhavnagar, I was in Mumbai, looking for new products to revitalise our parent company, Excel Industries.

Chaitanya: True, Ravi, your big story was turning Anshul around and moving seriously into the pharma space, where you are now producing newer products, especially APIs. But Endosulfan's success was a big story for Excel, and we had all become so complacent with our bread and butter earner… we didn't want to let go, and spent most of our time defending it. We didn't see the ban coming so soon.

Hrishit: And that was a hard period! Who could have thought the court would suddenly announce an interim ban on our star product? It was 2011, our back-up plan was being built to materialise a few years down the line, and I focused on stewarding the Endosulfan business. We were the largest in the world! We had three big plants, and suddenly we had no idea what to do with them!

Chaitanya: That's when the madness reached fever pitch. We had to bring in some older products to "fill in the blanks". The staff thought they would be asked to leave, but Dad was firm. No one would be retrenched.

Hrishit: That was when I learnt that when people have been with us for long, a certain goodwill builds up, which we have to honour as far as we can. I experienced first-hand the tremendous responsibility my family shouldered towards our employees and their families, and all of their lives, dreams and aspirations. So, instead of "laying off the flab", we redeployed all our staff irrespective of their position or performance and gave them different functions. And I can see how our people responded in times of crisis! And they are a great asset if they can be flexible enough to adapt. People have a perception of themselves, but the single most important thing for me is to make them think and see they can do much more than they believe…

Chaitanya: …And also, I like to make others do what I think is the right thing…I don't hesitate in insisting on it. I think I have become infamous for being a little whacky…

I think we also learned not to be vulnerable. The Endosulfan story taught me that. We ran about and realised that we were moving faster than the earlier generation. In the last four years, we have introduced seven to eight molecules, and five new products in 2016. Do we know of any MNC that has done this? Remember, Hrishit, we developed aceta, thia, quinal and so many more, during those years…

Hrishit: Yes. And we diversified into the fungicides segment. And now, we have won the trust of the farmers in this segment too. They know the Excel name. We want to offer farmers more products at more affordable prices. As Dipeshkaka says, we don't spend money on advertising. We spend it on genuine groundwork with farmers, giving demos, soil-testing kits and services, right advice.

Chaitanya: And thinking about the time I spent in Dhordo in 2007 under Manojkaka, where my first projects really began. I had a gruelling time constructing the guesthouse, a sewage treatment plant and setting up a sulphur dioxide plant with no experience at all! But today, whatever sense of civil engineering I have is because of this…

Ravi: Isn't it fascinating that we all have different personalities, we operate differently, but we have the same legacy of good values! Hrishit and Chikoo, you have been with the Excel staff through the lows and so have I, since we have that open-door policy. But I encourage people to come with suggestions to their problems, then turn them over to the team for implementation.

Hrishit: We find ways of keeping our legacy alive even today. And it's true we work in different ways. Chikoo, I think we worked together and saw each other's strengths. And Ravi, do you remember how, as children, we used to entertain others with our magic tricks? You used to do the tricks while I did all the talking! But as a team, we were good.

Ravi: Yes, you enjoy exploring and taking on challenges as they come.

Talking about challenges, now, it's an open, global economy, so inefficiencies cannot be covered up for very long because processes are not protected; we have to manage with what we get. The market sets the selling price, so we work backwards and ensure product cost is lower so we have a good margin.

Chaitanya: Today, pure manufacturers are no longer necessarily the leaders. We need to look at costs while keeping our old values alive.

Ravi: And if rural becomes urban in, say, 20 years, the relevance will be gone. So, I prefer to look for the kind of work or skillset that allows people to reap benefits repeatedly and create new products.

Chikoo, Hrishit, do you think our focus is equally on the family and the business? For me, it's both, not either/or.

Hrishit: I feel our family has been able to unite around the goal of nurturing and growing the family businesses together. That helps check the individual differences while giving full play to unique talents, styles and strengths. The camaraderie and understanding that Gen-II shared really inculcated a sense of acknowledging and leveraging all family strengths. Women, extended family members, even those not qualified, were offered equal opportunity. I deeply cherish the good fortune of working together with my family.

Chaitanya: Yes, and Ravi, you initiated a small investment entity for us cousins. It's great, because it gives us another reason to get together and chat and make decisions together. It also makes for a good excuse to discuss the bunch of business ideas that we have… and luckily, our contributions are proportional to the pay we get. By the way, have we decided what we should do with the investment?

Ravi: We haven't got around to it, but we will. We can take a vote on it when we meet for our next review!

Chaitanya: I think it's a good idea. It's a positive approach to keep communication channels open between all of us.

Hrishit: …Especially when we have similar goals for the future.

I want to do many things. I think, for me, making value from waste is exciting. This involves bringing about policy-level changes to emphasise treatment over disposal, changes in current civic practices where waste is not even segregated… There are many challenges to be overcome. We need to do this, because organised waste management will improve the health of Mother Earth and humankind…

Ravi: I think we are all thinking and planning along the same lines. Waste disposal is a perennial need. I'm looking at solid waste disposal through the MobiTrash service.

Chaitanya: Yes, it's definitely both a nationally relevant service and a good business venture. Our success with turning sewage into either industrial water or potable water has a lot of potential. Atulkaka has already started cracking into the government bureaucracy…

Hrishit: Sure. And some projects take longer than others to be successful. Still, it's incredible that our Bhavnagar plant converts 70,00,00 litres of sewage water every day to industrial water, which people can use in boilers and for production processes…

Chaitanya: Yes, and we can convert farm waste into manure fast.

Hrishit: And our company derives almost 50 per cent of its needs from renewable energy sources! That is a matter of pride. This needs to be multiplied to create a more sustainable model.

Ravi: We all seem to be looking at the future in similar ways… our thinking converges when it comes to making waste valuable and moving towards using renewable resources.

Perhaps that is a large part of our future…

The Irresistible Urge

The Artists in the Family

"Art washes away from the soul the dust of everyday life."
—Pablo Picasso

"'This is a copy of Picasso,' one of the specialist jury members had commented during the interview on seeing my linocut, 'Mother and Child', an image of a kitten and cat that I had submitted as a part of the selection procedure for the Fulbright Scholarship."

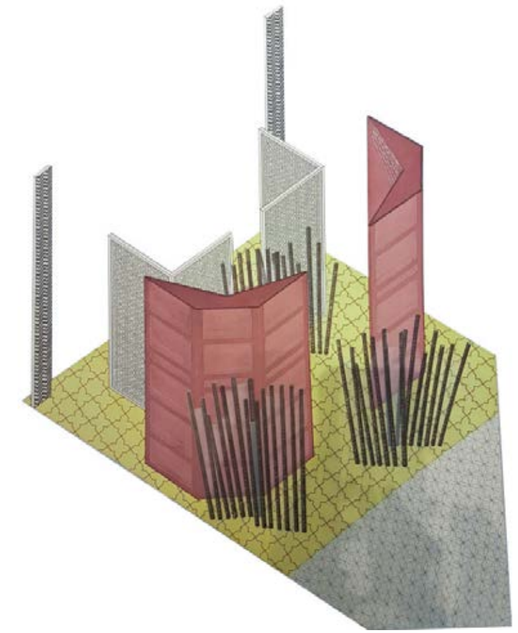
Senior and renowned printmaker Jyoti Bhatt continues, and smiles at his justified irritation that day.

"It is certainly a copy of a kind, but not of Picasso. Apart from few minor but essential changes demanded by the print medium, the image I have created in this print is a fairly accurate reproduction of the line drawing, which was made by some illiterate village woman on a wall of her hut near the seashore in Saurashtra. This woman belonged to a farmer community for whom any words like Picasso, France, Africa, or Cubism, did not have any meaning! I appreciate that you could see the similarity, but it is rather sad that you have no idea about so many of our own indigenous traditions because you do not find them in the books you have on your shelves!"

Jyoti Bhatt is married to fellow artist Jyotsna Bhatt, daughter of Devidas Shroff.

Linocut: Mother and Child, 1961, Jyoti Bhatt.

Kaka and his colouring book.



Guards-at-the-Taj 5
The 'Guards at the Taj' series started as a set-design project for a play of the same title that was staged in Mumbai in 2017. Vishwa Shroff draws upon the iconic design and architectural motifs of the Taj Mahal to create a narrative of the relationship between this monument and the people connected to it.

Every family is in awe of its artists, the creative souls who are able to reach that hallowed place where the commonplace and common sense cannot reach. Art is of course about the irresistible urge, the creative impulse, but the arts and the artist have also been a key to bring about positive social change… sometimes through gentle nudging, sometimes by challenging conventions and crossing boundaries, and often by enabling us to take cognisance of the unnoticeable, the everyday, the neglected and the forgotten.

Vishwa's (daughter of Atul and Shruti) art explores spatial and narrative possibilities of fragmented, transitional thoughts and the transferring attentions with which objects are perceived. "With drawing placed firmly at the centre of my practice, I experiment with drawing techniques, bringing attention to exaggerated marks, break points and the richness of line itself with the intention of intensifying the exaggerations made apparent whilst enlarging the drawings using a mirror projection. While drawing, I constantly refer to the diversity with which Manga (a style of Japanese comic books and graphic novels) is drawn."

But let's begin with the first artist of the family: Kantisen Shroff. He went to the hallowed precincts of Santiniketan to pursue art. Santiniketan was much more than an art school. Though Kaka's stay there was cut short by the onset of the World War, he imbibed its spirit for life.

Santiniketan was started in 1901 by Rabindranath Tagore with a vision to create a world where man exists in perfect harmony with nature. The school pulsated with Indian nationalistic learning, and anticolonial and internationalist pursuit of cultural and intellectual distinction. Located in the heart of nature amongst Hindu, Muslim and Santhali tribal villages, the school aimed to combine education with a sense of obligation towards the larger civic community, a synthesis of education and rural reconstruction, a facet visible in all spheres of Excel's activities.

Art forged the bond between Kaka and Chanda Shroff, his life partner. Chanda Shroff's brother, impressed by his "art studio", asked Kaka to groom Chanda. Later, Chanda used her aesthetic sensibilities as a springboard to found Shrujan, which played a pioneering role to preserve the craft of Kutchi embroidery and safeguard the dignity of the Kutchi women.

Since then, the line of artists in the family has been growing.

A renowned ceramist and potter, Jyotsna Bhatt, the daughter of Kantisen's elder brother, Devubha, came from Mumbai to Vadodara to learn sculpture at the famed Faculty of Fine Arts in Vadodara. The 410-km journey from Mumbai to Vadodara would not have been possible without Kaka's insistence and encouragement. Kaka swept aside family reservations. In those days, sending a teenage girl to another city to live in a hostel was considered a social sacrilege. He felt Vadodara would offer Jyotsna the best teachers in Shanko Chaudhuri and P.N. Bendre, whom he knew from his Santiniketan days.

Kaka knew Jyoti Bhatt, a fellow student of Jyotsna at MS University, and asked him to help her out with her studies.

Jyotsna Bhatt with their daughter Jaii.

Jyoti Bhatt's quick repartee always tingles the mind.

Jyotsna Bhatt in her studio.

After her graduation, the family had started looking for a match for Jyotsna. "I like Jyoti Bhatt," she confided in Kaka. After months of inquiry, the conservative Bhatia family agreed to marry her to him, a Brahmin! By that time, Jyoti Bhatt had already left for the US on a Fulbright scholarship. Before the completion of two years, he received another scholarship from the Rockefeller Foundation and extended his stay in the US by another two years. At this point, C.C., Champraj Shroff, much to everyone's surprise, suggested that Jyotsna go to the US and Jyoti and she get married there. With Jyoti's two months' travel grant from Rockefeller, they travelled together visiting museums and partaking in the art scene of the US.

Jyotsna's ceramic works include images of cats and dogs. She avoids repeating forms, and that is why she prefers not to go commercial.

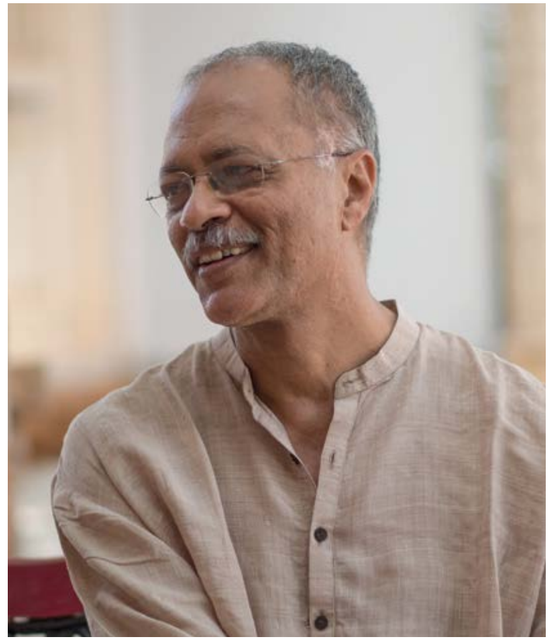
Jyoti Bhatt has worked in a wide range of media, but his graphic prints have garnered the maximum attention. His extensive photographic documentation of traditional Indian craft, design and art forms is a contribution that is growing even more significant today.

"Since the 1970s, I have concentrated on documenting living art in rural homes that have been rapidly disappearing because of modern, consumerist lifestyles. Not that this is the kind of photography I like doing or I am passionate about, but somebody has to document these lifestyles before they get lost forever."

Their daughter, Jaii, grew up wanting to be an architect but changed her mind at the last minute and graduated as a graphic designer from the same art school as her parents. Jaii Singh recalls, "My parents' house is like a museum, wherever you see there is art, paintings, sculpture… from the time I was born, all this was around me and must have had some effect on me."

Jaii's involvement in embroidery began when Chanda Shroff persuaded her to spend some time in Kutch during the initial days of the Pride and Enterprise project, a project to preserve the best in the embroidery tradition. Agreeing to spend no more than a week, Jaii ended up living in Bhuj for close to two years, where she was involved in designing panels for the project. Ahir was the first embroidery she encountered during this period, and perhaps that is why she has a particular fondness for it.

Kaka and Kaki have been instrumental in recognising and nurturing another artist–designer in the family. Kirit Dave had come all the way from Madhya Pradesh to Mumbai to meet Chanda Shroff, on the hydroponics trail. Hydroponics was interesting, but he was mesmerised watching Kaki creating batik pieces, the many things she did with her hands, and the art and craft books on the shelves… This fascination did not escape Kaka and Kaki's sharp eye. They prodded him to tell them about his interest and his hobbies. When he mentioned that he made toys, Kaki brought him the raw material to make them. Kaka gave him a bar of soap and asked him to carve something on it.



Contemporary relevance through appropriate design: designer and architect Kirit Dave.

"They invited me to stay on… and I agreed as if it was the most natural thing to do. My family found it a little strange, but in time, they realised it was perhaps the best thing for my education. I stayed with them and completed my studies in architecture. I became an integral part of the family. I have never felt 'this is not my home', or that I am not a member of the Shroff family."

"Kaka ensured that we youngsters stayed grounded through community work. During one such exposure, a student from Tata Institute of Social Sciences asked me to create products that would enable the slum women to earn a little income. That project was a success and similar requests came from other quarters. That is when I realised the value of design and its developmental potential to create products that had a place in urban markets."

Chinmayi Dipesh Shroff.

The indigenous, the handmade is struggling to survive, but its magic will never wear out. And it is Kirit Dave's mission to contribute to their contemporary relevance through appropriate design. Twenty years ago, he shifted base to Kutch to be closer to the crafts he loved. He works in textiles, wood and metal; his style is understated, cerebral and endowed with quiet mischief and humour. His vision as a designer has benefited several organisations committed to the local craft heritage and a dignified livelihood for local artisans, such as Shrujan, Khamir, Viveka, C.C. Shroff Self Help Centre and many others.

Ami Shroff, through the Living and Learning Design Centre Museum, is systematically working to document, collect, preserve and present the arts and crafts heritage of Kutch.

"And it's not just crafts, even food is getting industrialised. The McDonalds and Pizza Huts, packaged soups and snacks bear testimony to this," Kirit Dave rues. "Food is artisanal for me," Kirit tells us as the discussion veers to Krishni's bread and other bakery preparations. "Though Krishni (Dipesh and Preeti's daughter) uses technology, it is the handmade quality, the sensory and artistic aspects that make her breads special."

"Krishni is striving to bring our ancient grains and millets—*bajri, jawar* or *nachni*—that most of us today relegate to 'village cuisine', into our diets through her Bread Studio. She makes multigrain bread with *bajra, jawar* and *ragi*, white and black sesame and *magajtari* (pumpkin seeds). She also makes multigrain sourdoughs such as *bajra* and *jawar* sourdough, *ragi* and *bajri* sourdoughs. She sources indigenous flours that are naturally organic."

"But we need to replace the generic taste of bread from our minds to accept these Indian flour breads," adds Krishni.

Academics is not everyone's cup of tea. The history of bygone eras and geography of distant lands don't make sense when your hands are itching to create. Chinmayi, daughter of Dipesh and Preeti, wanted to collect her school-leaving certificate in the sixth grade and focus on her artistic inclinations. Her parents persuaded her to finish school and then look at art as a career option. After she finished schooling, Chinmayi was keen to enrol in the J.J. School of Arts, but that did not materialise. She studied literature and after her graduation went on to study art in England. The creative impulse is not easily curbed.

After experimenting with various art forms, she is now deeply involved in paper cutting, doing three- and five- dimensional work,

Krishni, culinary artist in the family.

creating a vision of an imagined world. The irresistible urge manifests itself at any time in strange ways. Hiral Dayal (sister of Atul Shroff, married to Tushar Dayal) found her calling during a visit to China. While they were sightseeing, she spotted a local Chinese craftsman working on paper cutting on the corner of the street. She was fascinated by what he created by merely "cutting" paper. Unable to move from there, she sat next to him on the roadside and watched him work. She realised the scissor and engraving knife were his most crucial tool. "I must have these," she decided. She did not leave China before procuring that costly pair of scissors and a cutter!

Once in Vadodara, she looked up the work of paper-cutting artists, watched YouTube tutorials, and tried her hand at paper cutting. Today, she has several intricate works to her credit. "I can do paper cutting for hours at a stretch. My works are fine and detailed, and sometimes, it takes a month or two, even more, to complete an elaborate work. For me it is a form of meditation."

Shruti and Amrita Shroff share a common passion: creativity through beadwork. Shruti Shroff's passion for intricate beadwork embroidery, inspired by William Morris's designs, rejuvenates her. "It is my stress buster and an outlet for my creative impulse."

Shruti's passion for beads has found its way to the tribal heartland of Chhota Udepur. Through the Viveka product line, fine articles made by tribal women, trained in the craft by Shroffs Foundation Trust, have found a pride of place in urban homes.

They say life is the art of drawing without an eraser. But what about the life of art? Well, for the Shroff family, it extends beyond the galleries and museums to bring creativity to processes of socially responsible transformation.

A paper cutout by Hiral Dayal.

Hiruben patiently creating a paper cutout.

Design for the Real World

Kirit Dave talks about the relevance of design to revive the craft sector.

"The Ford Foundation-funded project with Tibetan refugees in McLeodganj, Dharmashala, was a challenge but a winner. After three years, they politely told me that I was no longer needed as a designer. I could now visit them as a friend.

"Our design brief was basic: Design products for contemporary markets that had a distinct Tibetan identity. They should look Tibetan and use skills that were Tibetan. A two-week orientation and skill training session set the ball rolling. We succeeded because we worked round the constraints: an unskilled, mixed gender group, many of whom had never held a needle in their hands. Language was the other 'obstacle'."

"Every problem became an opportunity to add value to the product."

"Lining the coat that we had designed from reasonably soft Tibetan wool would have demanded a level of skills the participants lacked. We did away with the lining, yet designed for comfort. As we did not have a button holing machine, we used hand-stitched button holes as a design feature. The buttons were designed using the skills and technology available to the artisans who made brass Buddha statues.

"This is also what we are trying to do in our museum, the Living and Learning Design Centre. We will source all our raw materials and skills from Bhuj and around.

"The production of handicrafts is (after agriculture) the largest source of income among rural populations. An estimated 11.65 million Indians were engaged in craft production in 2013. This is expected to grow to 13.93 million in 2017 and 17.79 million in 2022. With these numbers, we cannot passively witness the fading of our traditional craft forms. We, as a community, must share the responsibility to further boost their livelihood prospects."

"Unfortunately," says Kirit Dave, "those who can move things, don't seriously think about what is needed; and those who think, can't move things."

Master Strokes of Love and Life

Kaka starts Painting at 90

Kantisen (Kaka) always wanted to be an artist and was passionate about drawing and painting. Around the age of 20 fate took a turn. The few months he spent at Santiniketan and what he learnt from his art teacher Jaggubhai who ran an art school in Mumbai, were locked into a forgotten but special corner of his mind till he turned 90.

His daughter Ami coaxed him to rebuild his relationship with the world of colours, line and shape. He didn't really take to the colouring books that Kaki found therapeutic, but he started sketching again. Hesitant at first, the eternal learner, Kaka, sharpened his craft and his repertoire, from his early tentative, scratchy strokes, copies from books, to life sketches of cows and inspiration-scapes from photographs taken by his children and grandchildren during their travels. Though his artworks are developed from visual references, they are not copies, except during the learning phase. The selection of subjects speak of his passions and his concerns and they represent his unique vision.

Kaka's use of space, treatment of the ground-background, the attention to minutae, detailed and at times incomplete-complete rendering, the use of white as a colour… give a soul to his subjects and tell many stories to the seeing eye.

Kaki was rather perturbed when Kaka took to sitting in the *tabela* and doing life studies of the cows. She chided him, "Be your age, you can't spend so many hours under the harsh sun." Promptly, Rajubhai, Kaka's trusted lieutenant, came to the rescue. He stood with an umbrella over Kaka's head while he sketched. This exasperated Kaki. "How can you have him stand in the sun for so many hours?" The next day she gave him a bunch of photographs of the cows taken from varied angles and in every possible pose. "You can draw from these now."

He experimented with a range of media. "Chalk pastels are my favourite,"and sometimes did a 'draw-a-thon', working till his shoulders and fingers collapsed... but he resurged, coming back to the art with renewed exuberance. Most works are in A/4 size.

On his 95th birthday, on 3rd January 2018, a show of his drawings and paintings was held at Excel Industries, Mumbai. Another one is planned soon at the LLDC Museum.

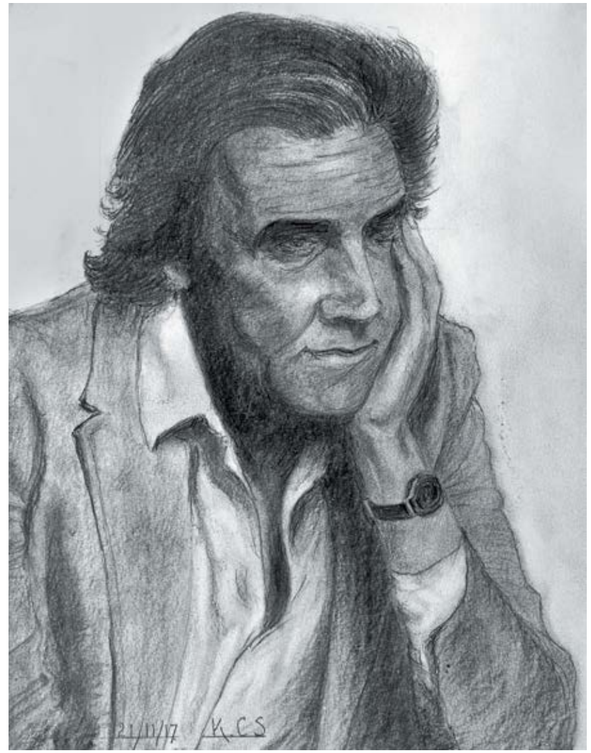
Kaka's beloved *matrubhoomi*, the Kutch terrain, powder pastels, inspired from photographs by Ajit Patel, 2017.

Braving the sun, for his beloved cows, pencil and coloured pencil, 2014.

Inspired by a photo from a trip to Leh by Kaki's nieces, in coloured pencils, 2015.

Inspired from Ami's photo souvenirs from Iceland, in powder pastel, 2017.

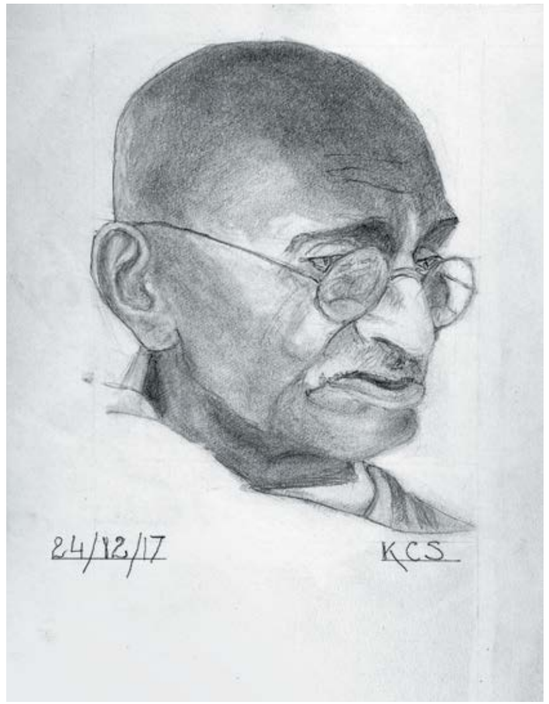
Kaka's angst is visible in the strokes of this work done soon after his beloved life partner, Kaki, travelled to a land beyond his reach, in charcoal, October 2016. One of Kaka's larger works in A/2 size.



The 'draw-a-thon', completed in just one and a half days, charcoal, 2017.

Standing tall even today, 2017.

Landscape, 2017.



Recent studies. 'Gandhiji', a life that deeply inspired Kaka. In this phase Kaka did one Gandhi sketch a day, pencil on paper, 2017.

A rare earlier sketch done during a visit to Konark, probably the late '60s , in a sudden burst of inspiration. Probably Jotuben who accompanied Kaka on the trip was the inspiration.

The Delicious Plate of Love

Sudha Dalal

Sudha

Can food be art? Can art be food? Leonardo da Vinci thought so. His notebooks contain thoughts on food as well as food-related shopping lists and recipes. Watch any cookery show today, and you will feel that for many chefs, cooking is a creative game. Perhaps, if we look at food in this light, we won't feel greedy and gluttonous when we overindulge, as the Shroff family would when Sudhaben's mouth-watering *mithai*s were on the table.

The soft-spoken and caring elder sister, the daughter of Devubha, Sudhaben was the first microbiologist of the family. And also the meticulous accountant of the extended Shroff family. As a young scientist, she worked in the Excel laboratory till she started a family. Sudhaben married Chandu Dalal, a close friend of her brother Kishor. It was then that the artist in her emerged: her three children, Hima, Mehul and Mihir were her inspiration. Her experiments shifted from the laboratory to the kitchen. She 'played' with ingredients and turned out the most exotic sweets and savouries, each one more divine than the earlier one. It is something the Shroff family misses today, her delicious plate of love.

Suffering from severe diabetes, Sudhaben, Devubha's eldest daughter, died young.

Warm Memories

A Timeless Treasure from Chetna Shroff Saraiya's Diary

Chetna

"Some childhood memories stay with you, warming your heart at unexpected moments. One such memory is from our family holiday in Ooty. I was one of the younger of the siblings. Jotuben (Jyotsna Bhatt) had taken the responsibility of looking after me. I would shiver after she gave me a bath. I just found Ooty too cold," remembers Chetuben.

She continues, "Jotuben would wrap me in a big Turkish towel and then iron my clothes for the day. The feel of those warm clothes has never left me. It was a very special touch of Jotuben's caring love."

"When I think of Jotuben, a quote by Marrion Garrety always comes to mind, 'A sister is a little bit of childhood that can never be lost.'"

"Chetuben, Govindjibhai's elder of the two daughters, shares her birthday with Pappa, C.C., and that was a very special bond between them." Ashwinbhai remembers. "She often accompanied us on our road journeys through the length and breadth of India. Pappa treated her to her then favourite, sweet *supari*, a spoonful at a time, often three spoonfuls, while we had to be content with one," Ashwinbhai ruefully admits.

Married to Praful Saraiya, Chetuben has always remained the warm and loving sister for all her siblings and cousins.

The Rhythm of the Rotis

Anshul Shroff Bhatia

Anshul

Around the time Excel was having its first "public issue", Ushabhabhi and Ashwinbhai Shroff were having their own first "private issue": daughter Anshul, born in 1971.

Anshul, the word in Sanskrit which translates to "a bright sunray", connects beautifully with her mother's name "Usha", meaning Dawn. She grew up in Matunga to become a chirpy young girl who laughed easily and heartily. Life was eventful and exciting; her school—then later, Podar College—and her friends were all close to her home in Matunga, which was the hub of her activities.

To add to the excitement, she managed to get a pet dog gifted to her. This dog became the Matunga home's 'Dennis the Menace'. "His staple diet became *dal-bhaat* (rice and lentils)—with the approval of the vet, Dr Telang. Dennis ate what the family ate, and even indicated personal preferences, after he acquired a taste for *idlis*!"

Anshul was very close to her grandmother, Snehlata, whom she called "Maiya" and with whom she shared a special bond. "When my parents moved to the Juhu house, I continued staying with Maiya in Matunga. My school and college were close by, and I got to spend more time with her."

Her thoughts linger on her Maiya:

"She taught me to cook. I learnt that roti-making is not a chore; it is both an art and a meditation. The rhythmic repetition stills the mind just as a chant does. I still use Maiya's '*chaklo-velan*' (stone and rolling pin) to roll out chapattis. It's only when I use those that I get the right roundness of my rotis, and they puff up. Her blessings and teachings that came through everyday activities are my inspiration."

A very special bond, Anshul with her Maiya, grandmother Snehlata Shroff.

The girl pals, left to right, Anshul Ashwin Shroff, Ami Kantisen Shroff and Kiran Kishor Shroff.

Soon after her marriage to Amrish in 1995, Anshul moved to Australia. "Unfortunately, I could not be with Maiya when her end came in 1997."

Anshul is no different from the other Shroff ladies in her involvement with Excel. She engaged with Excel's activities in the Bhavnagar plant, with Agrocel in Dhordo, and with Shrujan.

How did she and Ami, two Mumbai city girls, live for two months in that rudimentary grass house in Dhordo, so ironically called "The VIP House", in a harsh desert, in conditions that provided no comfort?

"It was Maiya who taught me a lot, mainly about adaptability," she answers nostalgically. "The biggest lesson I have learnt from her is acceptance, the art of gracefully adjusting to whatever circumstance life confronts you with." Life bore out the practical truth of this advice when she needed to move to a different country with her husband and make necessary adjustments.

Since her husband travels frequently, the onus of raising the children falls squarely on Anshul's shoulders. She has raised her two children—Anika (17) and Aarya (14)—to uphold the values Maiya had instilled in her. Anika is an earnest young girl who is conscious that each of us must give back to society more than we take from it.

Whichever part of the world they are in, it's difficult to keep the Shroffs' entrepreneurial spirit supressed. This spirit emerged in Anshul as well. She partnered to start an Indian handicraft business and also began working for a private health insurance company. However, priorities and adjustments play their part. Since Amrish now leads Accenture's Sourcing and Procurement Business Services for Australia and New Zealand, his travel schedule is demanding. Anshul has, therefore, taken time off from her business and job to support these crucial years of her children's education.

Anshul and Amrish Bhatia with their children, Anika and Aarya.

Anshul Amrish Bhatia, daughter of Ashwin and Usha Shroff.

Her thoughts go back to her Maiya. Maiya's blessings surely accompany her in all her journeys.

Faith is My Anchor

Anshul believes that faith and determination can move mountains. Influenced by Maiya's ideas in her childhood, and later inspired by her brother Hrishit, Anshul joined the **Soka Gakkai International (SGI)**, an international Nichiren **Buddhist** movement. The core Buddhist practice includes chanting *Nam-Myoho-Renge-Kyo*, reciting portions of the Lotus Sutra (referred to as *gongyo*) and sharing the teachings of Buddhism with others in order to help them overcome their problems. SGI is not a religion, it is a way of life that you can practice with any religion. She regularly chants twice a day to obtain wisdom. "We each need an anchor. Faith is my anchor."

The Excel Way

While the world was embroiled in World War II, Champraj Chatrabhuj Shroff (C.C.) stood thoughtfully over the sink in the ramshackle buffalo shed in Jogeshwari. As a young chemistry graduate, he was experimenting with chemical processes, improvising with whatever equipment would serve his purpose. He hired locally—from the tribal community, just seven workers at first—and expanded his team only as profits trickled in.

He passed his restless curiosity on to his team, rotating them from one role to another. If they had reservations about their own abilities, he boldly thrust these aside by demonstrating his confidence in his men, giving them even more challenging tasks. This often brought about new insights or kindled an entrepreneurial spirit, both of which were encouraged. All of them ate together in the common canteen with a feeling of mutual kinship.

Telescoping into the future, C.C. would found a chemical corporate that would stretch its influence to foreign lands, create a company propelled by an urge to *excel* in its products, and imbue its work ethic with a profoundly humanitarian approach.

This was his legacy.

We strive for a harmonious balance. The four 'R's: relevance, recycling, recovering and reusing are the key considerations when developing products, processes and waste disposal.

Let Us Together…

Sahaviryam: Harmony in Our Relationships

ॐ सहना ववतु
सहनौ भुनक्तु
सहविर्यम् करवावहे
तेजस्विना वधीतम् अस्तु मा विद विशावहै
ॐ शांति शांति शांति

Ma cooked and cared for the workers, setting up Excel's canteen where everyone ate together, creating a legacy of *sahaviryam*.

Let us together be protected.
Let us together be nourished by God's blessings.
Let us together join our mental forces in strength for the benefit of humanity.
Let our efforts at learning be luminous and filled with joy,
and endowed with the force of purpose.
Let us never be poisoned with the seeds of hatred for anyone.
Let there be peace and serenity in all the three universes.

The '*sahanavavatu mantra*' is one of the *shaanti* (peace) mantras that has its origins in the Taittiriya Upanisad. This mantra is often used as a universal prayer to convey the message of peace and prosperity, and may also be used to invoke God's blessings for harmony in our relationships. Traditionally, this mantra highlights the nature of the teacher–student relationship that produces ideal learning for the student. For the Shroff Group of Industries and NGOs, this has been the guiding philosophy for a harmonious family-nurturing relationship between the employer and the employee, the industry and the community, and the industry and the environment.

"I have been experiencing '*sahaviryam*' through countless experiences in the 94 years of my life. The defining quality of *sahaviryam* is the joy of togetherness, but it goes beyond this; it is faith in the destiny we all share, our oneness. This togetherness begins with the self, a harmony that comes from a union of the body, mind, heart and soul. It encompasses the entire *sajeev srishti*, the living world, the plants, trees, animals, birds, insects, microorganisms and microbes, sun, water, wind, stars… the entire cosmos. No individual or resource is considered useless."

Kantisen (Kaka), the mentor of the Shroff Group, reflects deeply upon the many dimensions of *sahaviryam*.

"*Sahaviryam* is also simply a space of contentment, an awakening from our cocoons of separateness. It is a belief in the power of collective happiness. It is the wisdom of the Native American Chief when he said, 'We did not weave the web of life; we are merely a strand in it. Whatever we do to the web, we do to ourselves.' As Helen Keller put it, 'Alone we can do so little; together we can do so much.' And this is very true for the 21st century, which is sitting on the edge of an ecological cataclysm such as climate change on one hand, and on the other, a crisis of 'humanhood' that is tearing at the peace of humankind.

"It is an understanding that as long as there is someone poor, we cannot be rich, even if we possess countless riches. If there is someone sick and unattended, we can never be healthy. If there is someone unlettered, we cannot be learned. Unless everyone prospers, we cannot experience abundance."

The Excel way is an attempt to keep the spirit of *sahaviryam* as its essence.

Between the Library and the Laboratory Stood C.C.'s Desk

Using All Kinds of Resources for Business Results

If you could picture it, from his desk, one door opened to the library and the other opened to the laboratory. What a perfect metaphor this is, for Champraj Shroff's life! C.C.—or Pappa, as he was known by the Excel family—moved constantly between reading and doing hands-on experimentation, and implementing those results in the factory!

Initially, he experimented in the kitchen laboratory, with its makeshift equipment.

A Kitchen Laboratory?

Kantisen Shroff (Kaka) explains.

"My brother Champraj, whom we all fondly called 'Pappa' was working at Eastern Chemicals in 1936. He was eager to learn and the laboratory there was well equipped, but his boss locked up all the equipment after work, so that Pappa could not experiment on his own.

"Never one to give up, Pappa found a way. At night, as soon as the kitchen at home was free, he would call me in, and we would perform our experiments there. We had gas stoves in those days, which meant that our heating facilities were good. We made discoveries there; we learnt there that making chemicals is so similar to cooking!

"In the kitchen, the lady of the house has all the vessels she needs. To cook a new dish, there is no need for her to look for new equipment. From the same vessels and resources, she can make countless dishes and serve up different varieties of food. She uses all her five senses to create new dishes with ease. Similarly, with the same raw materials, you can also prepare a variety of chemicals! Like in cooking, what matters is the type of vessel, the temperature, the pressure and the time. In chemistry too, these factors, when controlled properly, produce excellent products of the required quality. At Excel, we discovered new processes, successfully manufactured products, but largely used the same equipment, with some modifications and improvisations. When someone approached Pappa with a need for a product, he was able to quickly develop and deliver it."

"Making chemicals is so similar to cooking!" Pappa and Kaka in their kitchen-turned-laboratory.

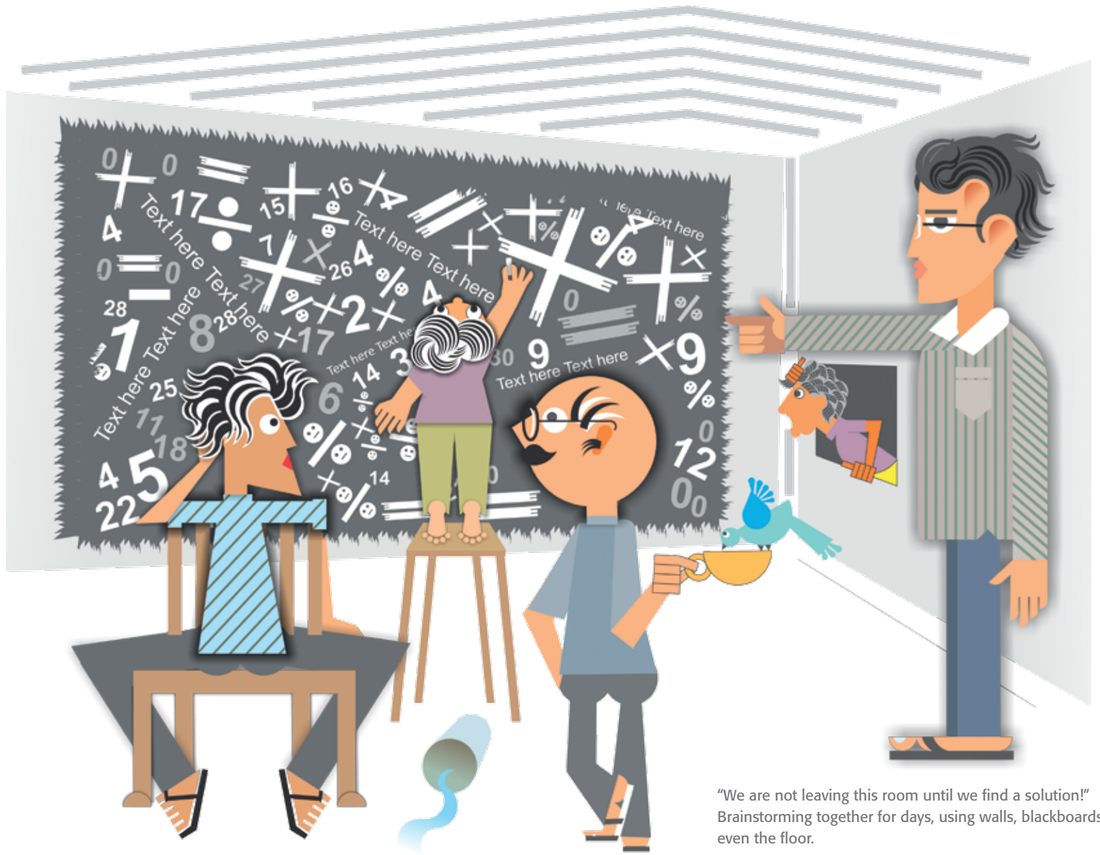
The Library

At the same time, the family had built up a very useful library. Among the library books that inspired C.C. were some curious, unusual books.

After WWII and the defeat of the Germans, the Allies went into Germany to unravel the secrets of various innovative technologies developed in Germany. The British compiled the BIOS (British Intelligence Objectives Sub-Committee) Reports; the combined Allied forces, CIOS (Combined Intelligence Objectives Sub-Committee) and FIAT (Field Intelligence Agency, Technical). The reports described certain significant chemical processes that C.C. studied minutely and used for Excel's growth. For example, extensive use of chlorine, which was available in India abundantly and cheaply, and Phosphoric acid from elemental Phosphorus.

The librarian then was Ms Medha Padhya, herself a chemist. In her was a fortunate blend of the knowledge of book-recording systems as well as chemistry, and she presided over an impressive collection of books and patents. As Anand Kadam, the present librarian, recalls: "She was a knowledge-storing and knowledge-sharing resource!"

It was a vast treasure available to anyone interested in it. No wonder cots were put in, so those interested could assimilate processes even as they fell asleep. This collection of books also



"We are not leaving this room until we find a solution!" Brainstorming together for days, using walls, blackboards, even the floor.

drew university students to Excel. Unfortunately, this priceless treasure was destroyed in a fire in 2001. Today, searches are online, but Kadam declares that hard copies are still relevant because they give the minutiae of processes.

The general academic approach, now, is to go from theory to practice, but even reading and research are not always enough. When solutions are sought, teams of people need to engage with the issue at hand and bring their ideas together. This is what happened at Excel from its inception.

Brainstorming is a management buzzword coined in 1948, but it had always been a tradition for Excelite teams to get the best ideas out in the open. With the passing years and a larger work force, informal discussion took on a more practical shape, with the use of boards to provide visual clarity. With practice, brainstorming enabled Excelites to get to critical fundamentals, develop hypotheses, experiment to validate the hypotheses, quickly visualise an appropriate scale-up, and anticipate the facilities needed.

"The aim is to find your areas of ignorance!" and then to acquire new knowledge and expertise, to complete the understanding of the whole, declares Kaka.

Prior to 1986, Excel went through a period of stagnation as the market began changing. The buyer became more prominent. Capital requirements were on the increase, and this meant that there was a greater need for financial discipline, along with clear directives from the management. When Kaka took on the leadership as CMD in 1985, as always, brainstorming became a significant tool in tiding over this time.

"In our case, no idea or thought is swept away or brushed aside, howsoever trivial or irrelevant it might appear initially; we rather keep it in reserve for a while. For the approach in our exercise is like solving a jigsaw puzzle. So, we try to minutely examine every bit, as information or idea, study it threadbare and try to piece the bits together, the way it would lead us to a feasible solution," explains Kaka.

This approach escalated to a point where they put up their ideas on a 'blackboard', a 30-foot long wall, painted black!

Kaka talks about this.

From Ideas to Business Results

"From around 1987 to 1993, a lot of new work was done and we found that our junior technical staff had a lot of ideas. We also found that such fresh ideas needed refining. In our Jogeshwari site, we had a wall around 30 feet long. We decided to convert it into a blackboard and so we painted it black. We installed around 25 chairs in a way that everybody could see it properly. We also trained one of our colleagues to write in a very neat way on the board.

"Our thought-sharing sessions would start from around 10.00 a.m. After the lunch break, we would continue till the evening. Every idea was respected. No one was small or inferior. The session would run for around three days. So, the next day, those ideas would be properly studied. To avoid any unnecessary movements, water and tea would only be served there. Sometimes, even outside experts would be invited.

"Top seniors would join on the third day and very clear ideas emerged, which were then carried forward for execution. The juniors also got opportunities to be part of the implementation team. Members from our different sites also came to participate."

Again and again, this tool bore results. If turnover is any benchmark, Excel grew seven-fold from 1986 to 1995 and received many prestigious awards. Kaka used ingenious ways of getting his men to understand chemicals. He selected 8–10 of his colleagues and named each person as a chemical; one was acetylene, another was Phosphorus, and so on. Each had to study his own chemical thoroughly before discussions took place. When discussions were intense and writing or diagrams were needed, every bit of space was used, whether it was soft boards, whiteboards, walls or even the floor!

Today, information through the internet may make the traditional library with physical books somewhat redundant. The internet is a quick and easy tool, facilitating access to information from around the world. However, it is not the **source of information** that is important, as much as **what you do with that information**.

The pyramid base: large volumes with smaller profits.

This is why brainstorming continues even today, in its various avatars, on whiteboards or mind-maps during workshops or in deliberation rooms.

The most recent example is the whiteboard brainstorming at Excel's plant in Roha, with the present CMD, Ashwin Shroff. The half-yearly review revealed that performance was uneven. While the initial quarter or so showed a rosy picture, there was a subsequent downward slide. How could this be redressed? Was it a question of choosing which products to manufacture in what quantities and when? Relooking at profit margins? Striving for quicker returns? Again, gathering ideas could best be done with the inputs of the team. The old tried and tested tool of brainstorming was applied.

To make the scenario clear, Ashwinbhai used three analogies to demonstrate the potential directions for strategic path correction. For this, he drew related sketches on the whiteboard.

The first was the **pyramid.** At the base were the products that were manufactured in the largest volumes, where profit margins were lower—the bread and butter products. As one ascended the pyramid, one moved further towards lower volume products, with higher profits, till the top section reflected products produced in small quantities, but which had the highest profit margins. Was there any scope for improving profits at the bottom or adding products at the top?

The second was the **low-hanging fruit**. The focus of this exercise was products with short gestation periods and rapid turnarounds. They should generate quick profits without any additional expense for new equipment.

The third was the **kaleidoscope**. As the word suggests, this was a 'remix' strategy, to explore the potential to produce **new** from the **old**, new products or new and improved processes, using the equipment that was available, again with the aim of making profits 'instantly' without fresh investments.

The ideas that came up were not only interesting but also useful, and can now be acted upon. As Excel proves, reading and brainstorming could fulfil 90 per cent of your aim, so that's the part you can solidly rely on.

In-House: The Magic Mantra

Make It Ourselves: Reaping Long-term Benefits

In the early days, before Excel was born, the Shroff family household teemed with all kinds of activity. Ma was a model of prudent frugality in all things. Take clothes, for instance. Clothes were handed down from the eldest through to the youngest. When they became worn out, they were cut into squares and used to swab the floors. If they were too tattered even for that, she cut them into pieces, using them to light her kerosene stove! Her knowledge of making items such as soap, hair oil, pain balm and household remedies, were passed on to the children and the excitement of making new things hung in the air.

"If you want to fly kites, learn to make them yourself!" was father's directive. This is why it was utterly normal for the children to make things in-house.

Years later, in Excel too, there was always an air of excitement, as C.C. experimented with new discoveries with the same keenness that marked his early experiments in the family kitchen before he started Excel. For C.C., there seemed to be a blurred line between recreational activities and work… he explored chemical processes, tinkered with them, adjusted them and changed them, until they were better. 'Better' could mean that the process became quicker, or that he modified the equipment to make it safer or more efficient, or that the product was purer. He took his people along for that fun ride, even while all of them were acutely aware that they were handling potentially hazardous chemicals and equipment.

'In-house' has always been one of the favourite buzzwords of Excel. Making in-house is a pragmatic way of functioning, demonstrating long-term benefits for the company. Having in-house resources helped Excel in many ways and also provided for backward integration of products they were making.

Even Excel's single acre of land in Jogeshwari had an integrated facility. It housed not only laboratory and manufacturing plants, but also a fabrication shop, library, electrical, carpentry, and even a glass-blowing unit! Was a particular kind of glass equipment needed? **No problem, our glass-blower is here!** Fabrication to be done? **Here is our Mistryji!** This 'in-house' approach helped Excel save on developmental costs, capital costs of plants, and leverage on early and cost-competitive commercialisation of products.

Fun, but definitely not child's play. Whether for out-of-the-box thinking or a do-it-yourself approach, every move needed a deep knowledge of the subject and its fundamentals.

Take, for example, the thermal process Phosphoric acid plant. The usual process required a graphite-lined reactor, a specialised pump for pumping molten Phosphorus and a special nozzle for spraying molten Phosphorus in the reactor. Also, they had to remove the heat generated during the production of Phosphoric acid. Although all this was a costly affair, it was required because of the corrosive property of Phosphoric acid at the high temperature at which it is produced in the reactor.

Experimentation has been the heart of Excel, from the home-kitchen laboratory at Jogeshwari to the state-of-the-art laboratories now at all the Excel plants.

The team turned the situation over in their minds. "What if we make a reactor of thin stainless steel and cool it by circulating cold water on its wall continuously to remove the heat, so that the Phosphoric acid does not corrode the reactor? At the same time, instead of pumping molten Phosphorus at a specified rate, which would involve a very high cost of the special quality pump, molten Phosphorus could be kept in a pressure vessel and pressurised water pumped in at the required rate to displace Phosphorus. This would then be taken up to the burner through a pipe."

It worked.

C.A. Mehta talks about more thrilling changes.

"Aluminium Phosphide required aluminium powder and red Phosphorus, both of which were bought from outside parties. To make Aluminium powder in-house, a special ball mill was designed. A simple 'male-female' wooden die was prepared in-house for a single stroke machine without too much investment. The product was made in the form of tablets. Later on, a second improvisation was also implemented. Since red Phosphorus was a raw material produced from yellow Phosphorus, its cost was higher. They experimented to make Aluminium Phosphide using yellow Phosphorus instead of red! The success of this process reduced the cost of production.

"Another product that Excel wanted to make was Wettable Sulphur, which was made from finely ground Sulphur. To eliminate the hazard of fire, the team developed an air jet mill in-house.

"Sulphur Dioxide was produced differently by Excel through the elementary lab process of reacting Sulphur with Sulphuric acid. To get rid of the moisture formed during the reaction, they washed the gas with concentrated Sulphuric acid, and then passed the gas through coke towers to remove the Sulphuric acid mist. A unique gas holder was made out of polyethylene. As the gas was made absolutely noncorrosive, only simple compressors were used."

The list could go on for several pages, including in-house Ethylene gas and Magnesium flakes, but the idea is clear. Very early on, Excel garnered a reputation and many awards for breakthrough processes. Today's new generation at the helm has benefitted from this exciting legacy of in-house experimentation.

While this do-it-yourself spirit helped Excel move forward, adding the element of collaboration and team play into the mix made them unstoppable.

Prakashbhai and Ranjitbhai Shroff, Ashwinbhai's cousins, talk about their earlier times with Excel. As an engineer, Prakashbhai saw the growth of Excel's plants from the very early days in Jogeshwari to the days of Malathion in Amboli, and later in Punjab and other places, and the teamwork of all those who provided needed facilities on the spot. Things changed as time moved on, but as far as possible, in-house was the way to work.

Excel's first public issue and Ashwinbhai and Ushabhabhi's first 'private issue,' expecting daughter Anshul.

There's another interesting but different story about doing things 'on their own'.

Ranjitbhai, a chartered accountant, recalls how, in the days before computers, in 1963, Excel's office had a much-prized piece of equipment, a calculator! At that time, Excel's turnover was just in lakhs, and the accounting was done manually on paper. And still, much of the work was done by the Excel team, to the extent that in 1972, when Excel needed funds for the Bhavnagar plant and went public, Govindjibhai insisted that the public issue be handled departmentally, in-house and not by involving merchant bankers! And sure enough, the public issue was successfully handled with Excel's listing on the Bombay Stock Exchange.

The issue was 32 times oversubscribed! It was a huge success, remembered even today. This was very much because the work was done in-house. But there was another reason for this time to be remembered: there were two issues!

As Ushabhabhi humorously put it, "One was a public issue, the other was a private issue…" She and Ashwinbhai were expecting their first child!

Changing Winds and Shifting Sands

Degrees of Crop Protection: Balancing the Effectiveness and Safety of Pesticides

"India lives in her villages."

Mahatma Gandhi was not just making a statistical observation; his statement was based on real conditions. India is a land of agriculture. Ever since Independence, we have banked upon agriculture for survival as well as future development. Keeping this consideration in the forefront, the Shroffs explored an enterprise with arguably the largest number of core stakeholders involved: the farmers.

One of the early business areas that the founder Shroffs had explored in the 1950s and 1960s was agrochemicals. Here was a good fit that combined Excel's know-how in chemicals, with a real agricultural need. The fertiliser business would need a large capital base.

Excel started as a pioneer, producing agrochemicals in 1950s. Excel has the distinction of having developed a wide range of chemicals, pesticides covering different pests affecting crops and agri-produce.

1950s — Fungicides — based on:
Mercury (Organo Mercurials), Copper (Colloidal Copper, Cuprous Oxide, Copper Oxichloride), Ziram, Sulphur (Sulfex) Rat control, Rodenticides (Zinc Phosphide)

1960s — Insecticides — Organo Phosphorus, Endosulfan, Malathion, Fumigants — Methyl Bromide, Ethylene Dibromide, Aluminium Phosphide

1980s — Weedicides — Glyphosate
Excel moved from Integrated Pest Management to Integrated Crop Management

Hold on to the rudder and sails! Seventy-five years of weathering the winds of change, and emerging alive and healthy.

Pesticides, required in smaller quantities, would need a smaller investment, which was within the means of Excel. The manufacture of pesticides was far more complex and required greater production acumen. The Shroffs decided to take the plunge. They became the first Indian company to make pesticides with 'simple sophistication'.

"We are not the largest, but we strive to be relevant to the needs of the society. This was so then, and is our guiding philosophy even today," explains Ashwinbhai. "Organomercurials used as seed dressing, seed protectant materials were Excel's first set of products, specifically developed for our first customers, two international giants: ICI of UK and Bayer of Germany. Celphos was our unique product. Indigenously made in the sixties, this fumigant that protects crops from pests was the call of the hour. The product was manufactured by the Germans, who thought we were incapable of making this product. But C.C. did it."

Food and food management was crucial to India's well-being. The government managed food sufficiency.

"Initially we supplied our products to the government through Pest Control agencies. In the seventies we shifted focus, and since the last 40 plus years we have been selling our agri-protection and other farm care products directly to farmers. Agrochemicals are a seasonal product. When the monsoons fail, the product does not move off the shelf. Stocks pile up. We sought to tide over this by cultivating markets in different geographical zones. In this way, we used seasonal cycles of the product to our advantage and diversified our market, making sure stocks were available to different markets at different times of year.

"Ours was the first company to export pesticides from India. Our pricing was competitive and our products superior, and Excel was awarded the Chemexcil (Basic Chemicals, Pharmaceuticals and Cosmetics Export Promotion Council) with boring regularity. The situation became somewhat embarrassing for us. We stopped applying for awards for some years!"

However, as plant and crop protection efforts by industries grew, important aspects of producing pesticides arose.

"The product had to be potent enough to destroy the target insects, yet safe, not harmful to users, the soil, water, marine life, birds and environment. We trained the farmers in their judicious use and cautioned them against the perils of excessive use. We gave them tips and tools to ensure the correct use of pesticides based on our research and trials. It might sound strange, but one of the tools we gave them was a magnifying glass to enable them to spot pests at an early stage! This was because early treatment can control the damage with minimal use of pesticides. We ensure that toxicity data and parameters are continuously monitored. Manufacturing is regulated and regularly inspected by the authorities concerned, as well as by civic bodies, NGOs, consumer bodies and others."

"Kaka has articulated the guiding rules to ensure an ethical and ecological balance in all products manufactured by the Excel Group. Every product and process must respect the *panch mahabhoots,* the classical elements:
aakash (space), *vayu* (air), *jal* (water), *agni* (fire), and *prithvi* (earth) and all its inhabitants, the *sajeev srishti*.

To this, he has added *manvi* (the dignity of all human life).

The four Rs—Relevance, Recycling, Recovering and Reusing—are the key considerations when developing products, processes and waste disposal."

Ashwinbhai talks of how concepts altered with new data from the field. "By the end of the eighties, the picture against Pesticides was turning dark with questions about possible adverse side effects. There was greater environmental awareness and vociferous concern for the impact of chemicals, as also genetically modified crops. Environmental activism led to several product bans. There was a growing desire to go back to traditional methods and organic farming techniques, and bio pesticides. A more balanced view was needed. Sometimes, a 'soft' treatment was needed, at other times, a more aggressive one was justified. Each tool or technique had to be used judiciously.

"I like to think of the whole debate, the dilemma of chemical interventions, from the perspective of health and medicine, an equally important matter. If a person develops a health issue, there are several systems and alternatives they can opt for. Allopathy, Ayurveda, Homeopathy, Naturopathy, Unani… each with their strengths and limitations. Lifestyle changes and preventive healthcare are equally contributory components. When an ailment can be treated by home remedies, there is nothing like it. Turmeric, tulsi, garlic, ginger…we do not need to subject ourselves to antibiotics at the onset of the smallest symptoms. However, when the illness is severe, more active and aggressive methods may be needed. Similarly, think of a farm where an entire field of crops can be destroyed in days if it is affected by fungus. What does one do in such circumstances?"

Ashwinbhai pauses, as he chooses his next words with care. **"What is limiting is the purist stance, a rigid mindset, whereby we discard a system without giving due cognizance to its usefulness in specific situations, as we sometimes do to allopathy.** The contempt that allopathic practitioners have for alternative systems is also not a healthy posture to adopt. Diagnostics tools developed by the allopathic system can provide the right guidelines for practitioners of all systems of medicine. There are times when we need to be **effective** and resort to allopathy, in simplistic terms, say a surgery or an emergency. At other times, a combination therapy—the most appropriate practices picked from several systems, may be the **safest** path to health and well-being."

He applies the same logic to crop protection products and hence the concepts IPM, ICM. "Very simply, the best of all worlds that respond to 'shifting' knowledge with a balanced wisdom is the approach we have adopted at Excel. Today, we are probing green directions with a greater vigour. From a chemical technology platform alone, Excel has learnt to develop another softer, greener path: the biotechnology platform. Solutions may come from chemistry as also biotechnology, as indeed from other technology platforms. Our canvas and the paints change, as the picture before us alters in the light of new facts and findings.

"Recently, our Group's flagship company, Excel Crop Care, was sold. The idea was to free our mind space and focus our energies on these new issues, leaving the pesticides activities to other corporates."

Shifting sands in our lives indicate that it's time to take a leap.

"What will not change is our desire to be responsible contributors. We do not wish to be irresponsible contaminators or insatiable consumers," Ashwinbhai concludes.

Served with a Smile

The Canteens: A Level Eating Field at all Sites

At the evening dinner hosted in Chiplun, Babaji Daple, the canteen manager was the last to eat. He made sure all the guests and all the staff and workers had been served before he served himself.

Sometimes, you remember the feel of the meal long after you have forgotten the taste of the meal. Wholesome fare, a generous spread, fresh local flavours, a feeling of community, togetherness… The meals at Lote were one such experience. And Babaji Daple made it special with his ever-flashing smile. With each meal, as he served us from the welcome *nariyal-pani* to the out-of-this-world *batata-wada*s for tea, his smile grew wider.

"The Excel canteen is something that makes Excel stand apart," Dr Milind Gokhale, medical advisor, Excel Lote, and a prominent personality, one of the guests at the Chiplun dinner, tells us. "Generally, most companies contract their canteen services to people who cook with a commercial objective, but not Excel. Excel's food is fresh, healthy and tasty; wholesome, like a home cooked meal. When the pollution board, other government officers, consultants and visitors come to the Lote Parshuram MIDC Estate, they make sure they reach the Excel canteen in time for lunch."

Gajanand Madekar, a social worker in the Roha Industrial Estate, shares another facet. "In most factories, workers make a big fuss about the food. They are never satisfied with what is served. Workers in our industrial estate demand non-vegetarian, spicy, oily fare, but not the Excel workers. They appreciate the healthy vegetarian meals."

The old Excel canteen, above. "The Excel canteen is something that makes Excel stand apart," says Dr Milind Gokhale. A common canteen for workers and officers was the heart of every Excel plant and office. The canteens at Roha, Lote and Dhordo.

And the credit for that, according to Madekar, should go to Ashwinbhai's family roots. "As the Shroff family eats the same food when they are at the plant, the workers appreciate and accept the healthy food as well." The togetherness that comes from eating together is as actively cultivated today as it was in the nascent years of Excel.

In the early days…

D.J. Unakar, a senior ex-Excelite, spent lunchtime at his desk, nibbling at his fruit and customary two *khakra*s. When Kaka heard about this, he confronted Unakar. "From tomorrow, you will eat your *khakras* in the canteen with all of us," Kaka ordered. "It is not about eating," Kaka told him. "It's about eating **together**."

And today…

You have to listen to what the operators Shirodhar Appa Gharat, Sanjay Gharat and Subhash Naik (Roha and Lote) have to say about their canteen to realise that 75 years have not dimmed the spirit in which Gokibai started cooking for her Excel family.

"*Hum* manager *ke baju mein baith ke khana kha sakte hai*."

"*Ek hi khana, ek hi* table*, kaamgar,* staff *aur* managers *sabhi ek saman hai. Sabhi* friendship *mein rehte hai*."

Everyone across ranks and files is treated with equal consideration, courtesy and respect. It's a dignity that workers at the lower end of the rung are denied in most work places. It is this that the operators and workers across Excel cherish, the egalitarian ethos that nourishes their soul; the respectful leadership that acknowledges them as human beings.

But even 'happy' workers sometimes grumble and protest.

Dr Gokhale remembers one such experience at Lote when the workers decided to express their anger and dissatisfaction about a petty grievance by boycotting their lunch. The plant manager and senior staff joined them at the gate. "'We will not eat, if you do not eat,' was all they said as they stood next to them, arms round their shoulders. In a while tempers cooled. Everyone was back in the canteen eating the meal that had been prepared for the day."

Hearts are won with empathy and love. And the smile that is served with the meal…

Sweet, Sweet *Jalebi*s

From Success to Significance: Working with Synergy

"'How can you create more C.C. Shroffs?' our British consultant had asked when Excel was in an early phase of expansion," Ashwin Shroff says, narrating the genesis of an idea that Kaka, Kantisen Shroff, often iterated again and again as the answer to resolving complex problems in the most efficient manner.

"You create **multiplexed** teams, multidisciplinary teams that work in close collaboration to produce **more than the sum of the parts**. The members of the team are carefully chosen to complement each other's strengths. Each member of the team brings in a special talent, a special skill and knowledge set, a unique disciplinary insight that results in a multidimensional understanding of complex problems. The secret to success was everyone's unflinching acceptance that each member of the team was an equal. There was no hierarchy of ideas and no hierarchy of people. Teammates engaged as inspirational components.

"Whereas competition aims at individual success, the Excel spirit prioritises collaboration, contribution and cooperation. We underplay the 'ME' to cherish the 'US', where all succeed and all emerge as winners. This raises us from the plane of episodic **success** to the epic scale of **significance**."

"And Kaka called this synergy a '*jalebi*'"

We couldn't resist asking, "And why a '*jalebi*'?"

"For one thing, a jalebi is an ever-growing spiral, the unfolding of things that are hidden. And of course, the taste of *jalebi* is sweet, like the results you obtain with the *jalebi* structure."

"We can relish the sheer unadulterated joy of achievement."

A *Jalebi* to Run the Plants

While earlier, the *jalebi* structure was used to find innovative solutions to technical problems, the strategy has recently been used by Excel as a management strategy.

A search was launched to find a suitable leader at the helm of Roha operations when senior Excelite Mr Degwekar was due to retire.

The vacuum had to be filled at the earliest. The Excel leadership decided to look **inwards** for a solution. Excel's senior management identified three capable managers from within the organisation with complementary strengths. The experiment is working and they are learning to work in synergy as a team to lead Roha operations.

"In every word, there is a mantra; in every root, there is medicine. Not a single human being is worthless or unfit, but to know all this, you require a '*yojak*', an entrepreneur, who is a rarity".

Ethics and Expediency

Being Ethical, Fair, and a Trustee of the Planet

"During my long experience in industry and government, I have hardly come across another Govindjibhai. He was a unique blend of business acumen and ethics, qualities that are difficult to find today. A gentleman to the last inch, he was 'unpurchaseable' on essentials. He would go a long way to help you, but would not compromise on his principles. He would never seek a favour from the 'powerful', who were often his friends," recounts Mishraji, former Executive Deputy Chief Controller of imports and exports.

Paresh Rajda, who was groomed by Govindji Shroff (Bhai) to be an entrepreneur, expands on this facet of Bhai's, which has remained a trait of Excel from its inception. "Pappa (C.C.) was unwilling to demand a higher price on a product even in a monopoly situation. Likewise, Bhai was unwilling to pay a bribe to obtain a licence, but obtain the permission he did."

Bhai's honesty, integrity and ethical and fair business practices were legendary. Corruption, tax dodging, dishonesty and cheating were commonplace during the Licence Raj. Not for Bhai. "The *tilak* on your head is not of consequence," he would say. "Nor will a recitation of the *sloka*s of the Bhagavad Gita exonerate you."

"In Bhai's religion, you had to live the teachings through your actions and deeds if you considered yourself a devotee," Paresh Rajda illustrates his point with a telling anecdote.

"Pappa, Kaka and the R&D team had developed the technology to produce oxalic acid. This was a first in India: no imported plant, no imported machinery, no imported raw materials. This 100 per cent indigenous product would save huge foreign exchange, which at that time was difficult to come by. But putting up a plant needed a licence from bureaucrats and that meant corruption. Bhai was bold, he was confident that what he was doing was beyond question. It was right and in the interest of the country.

"The plant was constructed without a licence. Bhai was determined and certain that he would succeed in getting the required licence without a bribe. During that period, he made several trips to Delhi with me and Paddubhai. The officer concerned did not relent. He wanted his pockets warmed. Bhai stood firm. He challenged the concerned officer to close the plant or arrest him for operating without a licence.

"Bhai returned to Mumbai and went ahead and fixed the date of the inauguration. He sent an invitation for the inauguration function to the officer who had refused to give him the licence. Along with the invitation, he sent a copy of the speech prepared by the dignitary who was to inaugurate the event, an Honourable Minister of the State of Maharashtra. The proposed speech explained the importance of the product in saving valuable foreign exchange through an entirely indigenous effort. The product of equivalent international quality would now be available in India at a much lower price than the imported product.

"The victory of truth prevailed and the licence arrived before the inauguration, with, of course, a congratulatory note. The officer concerned became an ardent admirer of Bhai. Not only did Bhai commission the plant without a bribe, he converted a dishonest officer into an honest one."

When a strong corporate culture of ethics is instituted, it is modelled across staff rungs. It may also mean taking the longer route, rejecting the one leading to larger short-term profits.

Govindjibhai was steeped in the Gandhian concept of 'trusteeship'. To him, trusteeship meant that all the resources at the disposal of man and nature are God's creation, and so, no-one could morally use them for purely personal interests. Because he believed in the rightness of their beliefs, he did not hesitate in welcoming into his home Shri Jayaprakash Narayan and Nanaji Deshmukh during the Emergency period, although this may have put his family at risk.

Paresh Rajda talks more about G.C. Shroff's ways: "Excel was the only producer, in India, for Cuprous Oxide. When there was a huge shortage of power in Maharashtra, this plant had to be shut down. Many big companies offered to buy the plant and the technology at a fancy price. But Bhai refused, and he selected a young engineer and sold the technology and the plant to him at a very reasonable price, getting in return a promise that he would not exploit his monopoly nor sell the product at unfair prices. The young engineer lived up to Bhai's expectation. Such was Bhai's influence."

The greatest impact of a company's reputation is clinched when their product prices are maintained at times of shortage, in a

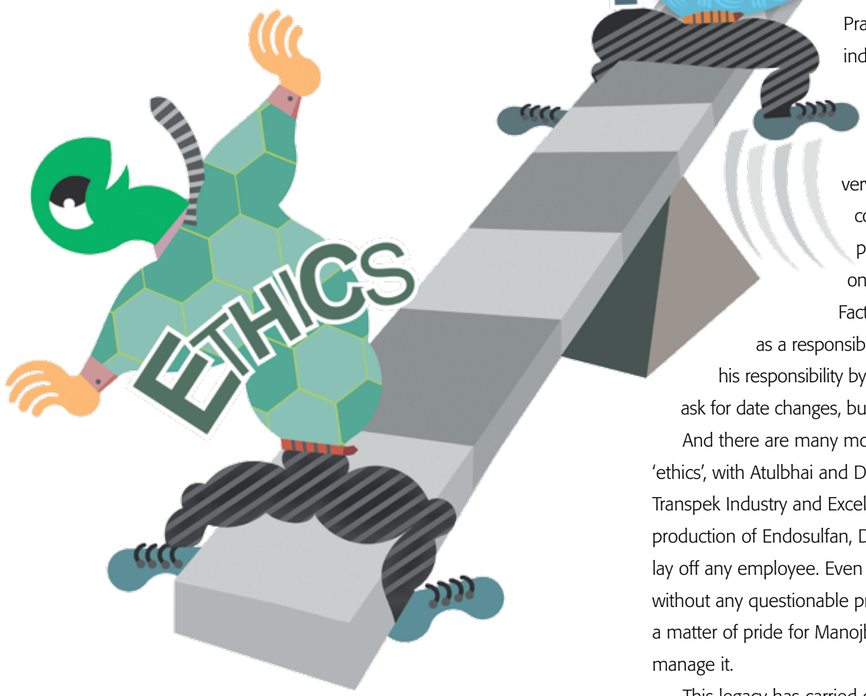
demonstration of fair-trade practice. Sales of Excel's new product, Celphos, were about to begin. C.C. had offered the product to the government at a price that was less than half the landed price for the imported material. C.C. told government authorities, "I would be quite happy and content with a reasonable profit that any industry or business needs for its smooth running. Science is to serve the people, not to make profits alone." However, C.C. passed away suddenly, and it came to Bhai to fulfil C.C.'s promise. He kept to C.C.'s commitment.

Why?

"Excel could have got 'the price', but would have lost its 'value'."

C.C. had worked a near miracle in 1956. He was able to make cupric chloride for the first time in India and deliver it to a desperate customer in four days, and at a price that was far less than what the customer usually paid.

His attitude?



Definitely not child's play. How do you balance ethics over expediency?

"Where is the service element left in it if we charge you a high price?"

With Kaka, too, **keeping to one's word** was paramount. Phosphorus pentasulphide was made by Excel, and sold to a leading buyer as well as used in-house. When it was in short supply, Kaka took the decision to deny Excel itself, but keep supply chains to the buyer open.

Even in less obvious ways, there is a certain ethical **sense of responsibility** that makes Ashwinbhai naturally law abiding. Advocate Prashant Deshmukh, legal adviser to various industries in Roha and Lote talks. He has known Ashwinbhai for the last 20 years.

"Excel's style of functioning is very different when compared to other companies. At Excel, Ashwinbhai does not permit any compromises or manipulation on legal compliances. According to the Factories Act, any director can be nominated as a responsible person, but Ashwinbhai does not shift his responsibility by nominating a representative. He does not ask for date changes, but stays with the flow of legal proceedings."

And there are many more instances of that larger meaning of 'ethics', with Atulbhai and Dipeshbhai in their functioning within Transpek Industry and Excel Crop Care Ltd. With the ban on the production of Endosulfan, Dipeshbhai took the bold decision not to lay off any employee. Even in Dhordo, the bromine plant was put up without any questionable practices in the obtaining of licences: a matter of pride for Manojbhai Gohil, who worked so hard to manage it.

This legacy has carried on to all the brothers, and percolated to the newest generation.

Is it easy to implement ethical practices today?

There have been instances in Excel's life, where sticklers in the game of corruption have not yielded to higher ideals and values. They have demanded their 'commissions', their 'cuts', bribes for official licences and certificates, even when the latter are legitimately deserved. Every company must rightly undertake multiple compliances. But with each compliance comes the shadow of potential corruption. Without compliance, a company can face crippling delays, mounting expenses, even shut-downs. Excel has faced this situation in the past, dissuading corruption to the point of cutting off the manufacture of tried and tested products. It's a colossal waste of resources, human effort and equipment. Debts pile up. Buyers, suppliers, shareholders, employees, in fact all stakeholders lose. Expediency becomes very tempting. It's not the path of least resistance, but the path of least damage.

Is this argument an excuse for the shortcut? A balm of justification over the troublesome but ubiquitous issue of corruption? Perhaps it is. But it is an approach that sometimes has to be taken, as long as the stakes of expediency are not overwhelming.

Ashwinbhai is hopeful.

"We should never begin with the assumption that everyone is corrupt. Since Excel is known to have a reputation for ethical practices, people approach us with that in mind. Yes, there may be some people we deal with who may not be influenced by that background."

Today, the government is cracking the whip on corrupt practices with the help of the media. However, corruption is just one issue. 'Ethics' has taken on a more rounded meaning today. *One must look at ethics as encircling many areas of a larger morality.* In these scaldingly competitive times, do companies pressurise employees to fulfil deadlines or objectives that are near impossible? Business ethics allow that employees be stretched at work, but not beyond a realistic capacity. Ethical expectations extend to the care of communities around, and greater CSR standards are urged.

Ashwinbhai says, "I do not prefer the word 'philanthropic' since it implies charity. When one reflects, one can find the limitations of mere philanthropy. Being a socially responsible company and showing support to the community around doesn't mean always putting your hand in your pocket and donating a lump sum, sparingly.

"[However,] we believe in getting 'involved' and prefer to use the phrase 'partnership in sustainable development' than merely giving donations. We help the partnering stakeholder to sharpen and differentiate their 'unique value proposition', improve and increase their 'capacity building' together with extending 'helping hand' and other necessary resources.

"This is the way for companies to address challenges that lie outside of their core competencies but still affect their business, and it is a way for companies to show that they are responsive to employees, customers, government, community and other stakeholder concerns."

A new concern has emerged, which is the ethics of 'green'.

"The philosophy that drives us is that we have to plough back something to society when we draw resources from it… When you throw out the untreated effluent, it only ends up polluting your own neighbourhood…" said Ashwinbhai in an interview with *Capital Market*, in the year 2000.

Overall, ethics continues to be one of the prominent values within the way Excel conducts its business and projects. Wikipedia says, "By the mid-1980s at least 500 courses in business ethics reached 40,000 students… supported by professional societies, centres and journals of business ethics."

And here we are, 30 years later, with even more concern about the subject. So, it seems that there is much *more* interest in ethical practices today, than *less*.

The thought has a hopeful, positive shine to it.

Wearing the Crown Lightly

Respectful Leadership and Winning Hearts

A manager was trying hard to teach young trainees the fundamentals of geography. The Earth is round, he explained. But the trainees were sceptical. He drew diagrams. He quoted history. He told stories of nail-biting expeditions, of the Portuguese, of Columbus, and of Ferdinand Magellan. But he simply drew a blank. He even took the trainees to the seashore to observe how a ship sailing away gradually disappeared from view. "It must have fallen off the face of the Earth," they retorted, refusing to budge from their point of view. Finally, in frustration, he sent them a circular signed by the CEO stating that the Earth was round. Ah, the CEO hath spoken! They all promptly agreed unconditionally.

"This was a management joke that I shared with Ashwinbhai," says ex-Excelite D.B. Mehta with a chuckle. Mr Mehta has known Ashwinbhai since the days of their youth.

"And do you know how he reacted? He laughed but added, 'In our case, none of us would coerce employees to toe the line.'"

It's always interesting to see the man at the helm from others' eyes; those who work or have worked closely with him. There are certain leadership traits that are passed on as legacies, which draw together the company's values and set the corporate tone over generations.

A peep into his cabin is revealing. On Ashwin Shroff's table are three simple images. One is a picture of a smiling Krishna, with the message to let affectionate empathy flow rather than words. Another shows a lady offering water to a thirsty man. These personalised objects are telling; they depict the values he focuses on, in his daily life. A paragraph describing Aquarian characteristics forms the third image, perhaps to remind him of his own personality traits.

D.B. Mehta reveals more: "The Shroffs' approach is generally to give people minimum directives. People are told what is needed and left to their discretion. The purpose is to allow people to unlock their own potential.

"Ashwinbhai's belief in *respectful leadership* allows him to wear his crown lightly and win hearts with his little gestures of respect for fellow beings. He can hold the door for his office assistants and take a personal message for them, however mundane, if their phone call gets diverted to his cabin by a chance mistake. He values feedback and can even go as far as to ask you to evaluate his performance."

"I have never seen Ashwinbhai shout at an employee," Bipin Jha shares. "This is a signal to everyone that we cannot and do not shout at subordinates. It is a value that we carry into our homes and our lives."

"He is a rare breed of passion and emotion," says Maya Gandhi. "Introducing employees as colleagues regardless of their hierarchy. He practices the 'open-door policy', with a willingness to help anyone who approaches him. His leadership is inclusive and motivating. As the eternal learner, he energises anyone working with him with his constant efforts to explore new frontiers of knowledge."

We ask Ashwinbhai about this, and he admits shyly: "Discovery excites me."

Who is a king? Just a cog in the company wheel, channelling comradeship and taking the pressure off! Ashwinbhai was always there to lend a helping hand to workers at all levels.

Far-sighted Selfishness

The Benefits to Communities and Companies of Having a Shared Vision

C.C. Shroff, or Pappa, often used to jokingly say, "I treat them well because I want them to treat me well!"

A surface understanding of this statement may bring in a whiff of a self-serving attitude, but it would be worthwhile going into the deeper meaning of this, to see how this attitude has percolated as part of Excel's culture.

The Commercial Angle

The general understanding of the word 'company' is that of an organisation that undertakes some kind of business, with a view to profit from it, and the more the profit, the better the company!

Excel is a company, and therefore, a for-profit entity that aims to develop and focus its competencies in making and selling its products, and to undertake research and development. For all this to happen, numbers must be kept at the forefront and must make commercial sense. But for those companies that have a much broader vision, such a definition is a rather narrow box to fit into.

The dilemma for many companies such as Excel, which see themselves as a microcosm of the world, is to understand how to balance the twin intentions of making profits, with lending a hand within the community. There are two dimensions: selfish and non-selfish. Corporate social responsibilities lie at their meeting point.

A Shared Vision

In India, in earlier times, Mahajans were resourceful elders whose efforts were directed towards maintaining harmony and furthering prosperity within the community. This is a task that calls for sensitivity: however genuine one's good intentions are, they cannot be thrust down people's throats. Requirements must be recognised and respected, and people's trust and confidence have to be won.

In Excel's case, the ideal is to have a shared vision, for this leads to the benefit of all. Happily, the management of the company and of its NGOs is the same, so with a mix of logic and sentiment, the Shroffs began their attempts towards this shared vision in many areas, including the drought-prone land of their ancestors, Kutch.

From the Heart

Certain ventures are undertaken just from the heart, for the satisfaction of helping.

Concern was expressed by Atmasthanandaji of the Ramkrishna Mission. Kantisen (Kaka) and his wife Chandaben (Kaki) created their two oldest NGOs—VRTI and Shrujan—as an organised response to the concern that was expressed, which described the situation of the farming and cattle-rearing communities in Kutch.

In Kutch, cattle were wealth. If cattle could not be sustained because of lack of water, people either migrated to areas with water, or brought grass to the cattle at high cost, or gave up and took off to cities. Any of these moves causes problems. This was a worrisome state of affairs that required much more than temporary charitable hand-outs.

What, then, could be done?

Resources

Companies have resources. For a company, the profit motive ensures that resources are being allocated efficiently. The choice of how these resources are used impacts people. For those companies that value people, such choices are made very carefully, because people build society. So, the element of financial gain must be weighed against public interest. When a company wants to serve society, the leaders give their time, expertise and resources, and are willing to wait for returns.

Kaka brought in resources such as know-how, geologists and surveys. He arranged for this effort in reducing risks for farmers. Water was found and appropriate interventions such as check dams were made through sustained application by VRTI. Survival became possible with these measures. The circle of beneficiaries expanded and, with growing water assurance, cropping cycles became more frequent, more crops were sold and there was more money. There was a burgeoning sense of well-being, and farmers were ready to spend on different products.

It's as simple as understanding the uses of extra money. With extra, farmers could build *pukka* houses, put in electricity, water

pipes, furniture… this naturally gives rise to different kinds of markets. Such improvements began to be seen. But of course, all this happened over a length of time.

Intention

It would be naïve to think that the initial intention of 'lending a helping hand' was to create markets for the company products. Would any company that intends to make profits continually invest in all these measures over 25–30 years in the hope that farmers would, at some stage, buy their products? Can this be called a profit-oriented process? The answer is logical and obvious: no.

One must be very clear that the entire exercise of addressing concerns, bringing in solution-based activities and seeing them through to some level of sustainability is a long-term process. The gap of time between help initiatives and the rise of markets because of growing prosperity is often measured in decades.

It then becomes self-evident that the initial intention of fulfilling needs is just that: a wish to offer a better lot to farmers and the community by addressing their concerns and needs. At the same time, the word 'altruism' doesn't fit here, because it smacks of philanthropy, even charity, which, strictly speaking, is not how the Shroff family would describe these efforts.

Long-Term Wisdom

In the harsh conditions of Kutch, while Kaka grappled with ways to provide water and livelihood, Kaki saw the women's expertise in embroidery work. Could it be converted into an income-generating opportunity for the women, she wondered. Threads and cloth were provided and marketing done for finished products. Income was generated through Shrujan.

In this way, the lives of both men and women became more secure, and their resistance to droughts and other calamities was strengthened.

Resolute patience and perseverance: that's how we build a bridge to the future. When the community wins, everyone wins.

Water became a kind of theme for this drought-prone region of Kutch. For nearly 50 years now, efforts have been made continuously in this area. Drought-proofing and water-management of areas was taken up in a scientific way, because this is central to agriculture and cattle rearing.

Second came the question of using this water responsibly. The water provided after all these interventions was precious and had to be used in a discriminate manner, with minimum waste. The Shroffs brought drip irrigation to India through Netafim, the global leader in smart-drip and micro-irrigation solutions, to help farmers understand responsible ways of using water and to make sure that the consumerist attitude to water was restrained.

Isn't it the usual tendency to be careless with resources once they are easily available? We leave the heater on, lights blazing, water running, all of which add to climate change and CO_2 in the atmosphere. Do we really need a 24x7 hot-water system across a largely tropical country like India? Habits can change, if a balance between supply and demand management can be brought about.

What about the use of industrial water? This too, is a resource that needs management. The use of industrial water has different dimensions. In Excel, as in thousands of other companies, one of the uses is for cooling. Water that passes through the cooling towers is conditioned carefully, by the addition of certain chemicals, to optimise the cycles and the heat transfer in the reactors.

Another dimension is waste water. Atul Shroff looks into the problem of sewage and effluent water, which Kaka sees as the only 'perennial rivers' left. How can this kind of water be made useful? Transpek Industry works on its treatment, which includes the use of biofilters.

The last dimension connected to water is the changing climate patterns. Is there any action that can be taken? Two institutions were set up to go to the root of the problem; ICCSIR was set up to scientifically measure weather and changes, while NCCSD was created for policy advocacy through those who had some clout with the government, as was done through Kiritbhai Shelat, a veteran IAS officer who used to be Principal Secretary of Agriculture, Gujarat.

Apart from water, India's occupations of agriculture and forestry over millions of acres helps in the absorption of CO_2 through photosynthesis. Technically, agriculture is a solution for climate change, rather than being a problem. If policy advocacy drives towards encouraging these activities, the government could be influenced to bring about positive changes. A subtle, but significant aspect of this entire handholding intent is the tremendous goodwill, love and respect that springs naturally from people who have benefitted in some way or other. It even brings protection when needed. A striking example of this is the Jetha Lila Bank, which was run by a Bhatia family in Zanzibar during the reign of the Sultan. In 1964, while terror was let loose in a coup, this family's home was spared simply because they had been fair and helpful to the people.

Semi-Commercial?

It's important to have a sharp focus on whether one does an activity for business or as an NGO. The size and scale of operations becomes a crucial deciding factor. An example is Excel's project of tissue culture for dates.

Since the quality of dates, a popular and valued Kutchi crop, was unreliable, much thought went into how to tackle the problem. Solutions and experts were called in. They would need a laboratory; protocols would be needed for tissue culture. Interaction with farmers would take place over a period of time.

How could farmers be helped through an NGO, since there was no immediate social dimension? Apart from this, money and other resources would be needed, with imports from the Middle East. A package of inputs would be required. This type of activity, with its time lag and phasing, and need for resources, could only be undertaken by a company.

'Kutch Crop Services' was formed, which allowed for all that was needed. Money was invested. Meanwhile, protocols were prepared for starting tissue culture in India. The activity involved a shared vision and engaging with the community. Would it yield profits as a commercial venture? The answer remains a long-tailed question mark. Typically, products that need long gestation periods may need to be commercial, because one is investing in a risky venture that requires the ability to afford it, for a long-term positive goal.

Helping the community win makes sense in all ways. When the purpose is to help, the more the prosperity of a region improves over time, the more increase there is in the purchasing power of individuals. Purchases might extend to any kinds of needs that cover a whole gamut of different products. One of them might be the company's products. So, what starts out as a helping intention might end up as a commercial opportunity.

The heart of the matter is the approach that a company adopts in order to address issues that affect the public.

"Excel is an Example"

G. Narayana, Chairman Emeritus, Talks about the 5 'E's, God and More

Dressed in a spotless white, crisp dhoti, kurta and *angavastra*, he looked every inch the chaste Guruji well-versed in the scriptures. And 'Guruji' is indeed the name that he is recognised by. Ask for G. Narayana in Excel, where he is Chairman Emeritus, and the name draws a blank. Ask for Guruji and everyone nods their heads and tells you one of Guruji's management lessons that draw parallels with Indian scriptures, the Vedas and the Gita and classical literature.

"Energy flows from him," says Ashwin Shroff about Narayanabhai Guruji.

We met Narayanabhai at the Transpek office to talk to him about his Excel years and Excel as an organisation. Narayanabhai's views would be revealing as he could balance both the views—the subjective and the objective—having been the Chairman of Excel in fairly trying times, and the Chairman on the board of several companies. He has also been a mentor and adviser to several medium- and small-scale industries and voluntary organisations. Narayanabhai has more than 600 books to his credit, and we were lucky to be gifted 3 volumes that provided his management insights in a sort of A to Z ready reckoner.

As he talks, he scribbles and sketches, a pen and blank paper or a blackboard drive home his points with great clarity through simple graphic line drawings.

Have you ever heard the expression "You can't teach an old dog new tricks"? Narayanabhai, at 70, impresses on you that no matter how old you are, you can still have a few tricks up your sleeve. "Excel has the power to produce Excellence," he tells us. "Excel is an example." A half hour after we part, he calls us to reiterate his point. "Excel is a special example."

We ask: **"What makes Excel an example?"**

In a nutshell, he says it is the Excel way of doing things. The Excel way can be described as the 5 'E's:

The first, of course, is **Ethics**. You could call it the guiding principle of *Ahimsa*: doing things right so as not to hurt or harm anyone or anything. Excel is considerate and fair to its employees, suppliers, customers, shareholders and community.

Their second strength is **Energy**: broadly the optimum utilisation of resources. Waste elimination, waste reduction, or waste as resource have often been the genesis of products. Available resources are always solution sources.

Excel achieves **Excellence** through simple solutions for optimum results. Energy (in a way, resources) is used ethically to achieve and sustain excellence.

Economy of means, frugality, maximum from minimum… these principles are woven into the Excel DNA.

And the last E is **Ecology.** Excel ensures that its consideration extends to the environment. And it goes further. Excel undertakes projects that strive to rectify the ecological imbalances that are disturbing the equilibrium of our earth.

"At Excel, all the management and the employees… from top to bottom, everyone is a learner. Serving, not earning, is Excel's motto. In its 75-year history, Excel has not been shut down because of a labour unrest. There have been small episodes of dissent, but Excel has managed these with its warm human touch."

We ask him to tell us about his days at Excel.

"I was called in at a time when Excel had made their first losses. They were in a period of transition. Kantisen had taken over the reins from G.C. Shroff. G.C. Shroff was a decision-maker, while Kantisen was a democratic leader. Generating team decisions that carried everyone's voice was critical to facilitate his democratic style. We focused on GOD: Group Organisation Dynamics. We created teams to make the impossible, possible. Eating together, laughing together, crying together created the spirit of togetherness, making it easier to make decisions together… decisions that every member of the team respected and owned. We struggled together and eventually, by the sheer energy of the team, succeeded together."

He elaborates on some of the issues that were critical in those anxious days.

"One of the critical decisions we had to take during the financial crisis was to resize to a lean, efficient organisation. Excel had never asked anyone to leave, except in extraordinary circumstances such as cheating or theft. Human consideration even at the cost of efficiency had been the norm then. Hence, this step was

G. Narayana's five 'E's of Excel: Ethics, Energy, Excellence, Economy, Ecology. And of course, self-reliance through local resources and indigenous processes.

unprecedented. I am proud to say we managed the Voluntary Retirement Schemes (VRS) without acrimony through a series of negotiations and big-hearted concessions to the employees' union. Three generous VRS options enabled employees to exit with dignity and security. It took Excel a few years to overcome the setback from this financial burden. Trust, the kinship spirit built within the organisation was instrumental in the smooth flow of negotiations with the union."

Narayanabhai draws us a diagram of how crucial trust is for an organisation. Trust with agreement nourishes the company and brings healthy results. Trust without agreement is still a catalyst for improvement. If there is agreement without trust, however, it's probably a bitter pill they both have to swallow because of compulsions." Narayanabhai pauses before continuing: "And lastly, when there is no trust and no agreement, they are adversaries, ready to harm each other."

Excel's values are timeless, he believes, as is borne out by its Vision–Mission–statement. "We drew up this statement when Excel turned 50."

At 75, it is a vision Excel still believes in. The small footprints, each a step forward, in the spirit of the Excel way, have become a firm path leading to larger pathways.

"You've got to think about big things while you're doing small things, so that all the small things go in the right direction."
—Alvin Toffler

The Excel Way

Approaches to Work, People, Life and Leadership

Technically, Excel's genesis happened much before its official launch in 1941 in the Jogeshwari shed. It was born in Kutch and in the values of frugality, community sharing and facing challenges in a spirit of togetherness. Spotting every opportunity and using every resource threadbare in that arid land was a normal way of life, a common-sense response to the conditions one finds oneself in.

From Ma and Chatrabhuj Shroff (Bhabha), the family had learned to make things themselves, from kites to perfumes. In Excel, C.C. created his equipment in-house or used commonly available cheap containers e.g. pickle jars, wooden tubs, in a novel way, for making complicated chemicals.

"On that single acre of land, we had all the services and people we needed; our carpenter, electrician, the pump department, our laboratory, library, workshop. More unusually, even our own glass-blowing unit, operated by a Mr Mandal, was put up here," remembers Ashwinbhai.

"I don't have a role model. The qualities of achievers and their winning strategies inspire me," Ravi muses. "Lessons from nature intrigue me. There are role models here too. The fight of the cobra and the mongoose is a classic example of how to crush the 'competition' and emerge victorious when you are an 'unequal' champion. Speed, agility and strategic flexibility are the key."

We remember reading about this fight in a Ruskin Bond story.

The mongoose is not immune to the venomous bite, but is faster and quicker in motion than the snake. The cobra assumes a posture of defence and attempts to reach the animal by a sweeping strike. But the quick-moving mongoose jumps out of reach and comes at the snake from another direction. This constant movement tires the snake and the mongoose is finally able to leap in close and bury its teeth in the snake's neck.

He closes the cobra–mongoose analogy with a seemingly tangential thought.

"Individual strengths count, but individuals have weaknesses too. Teams are superior. I saw this with Pappa, Bhai and Kaka."

Ravi analyses the success of Excel's founder generation with a sharp lens.

"The three brothers were very close and loved and respected each other. Although they had different styles, they worked together as a team. I learnt the importance of complementary teams working as a cohesive whole from my grandfather's generation. Pappa created new products; Govindjibhai (Bhai) was the company's astute backbone. He managed finances and human resources with a balance of the soft and the hard. And Kaka put all this together in implementation."

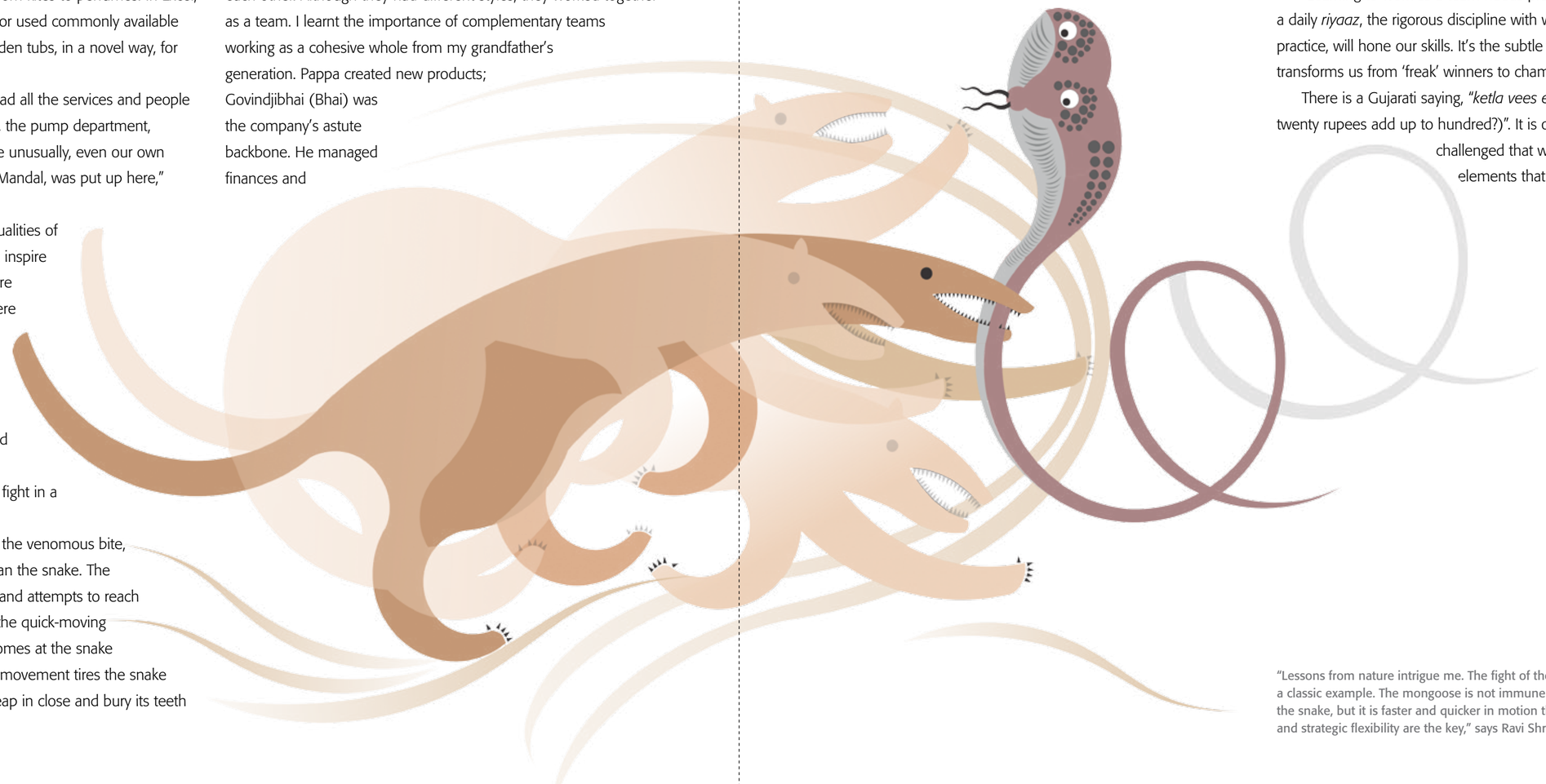
"Clean, careful and caring stewardship, resourcefulness and thrift were qualities they epitomised in their approach to problems.

"Atulkaka, Dipeshkaka and my dad have worked together in the company so they understand each other's working styles and preferences. Individual business entities were created to give each one their space to grow in their own ways. There is no day-to-day interference, but they are always there when the need arises. The Roha, Dhordo and several other stories show their deep interest and respect for each other's passions and dreams."

"Five of us, the next generation—Hrishit, Chaitanya, Pratik, Paritosh and me—we have made a conscious effort to create a 'platform' where we interact outside our business context."

"Learning to work as a team needs practice. I realise that only a daily *riyaaz*, the rigorous discipline with which the maestros practice, will hone our skills. It's the subtle yet significant journey that transforms us from 'freak' winners to champions."

There is a Gujarati saying, "*ketla vees e sau thay* (how many twenty rupees add up to hundred?)". It is only when we are challenged that we value all the parts, the elements that add up to the whole.



"Lessons from nature intrigue me. The fight of the cobra and the mongoose is a classic example. The mongoose is not immune to the venomous bite of the snake, but it is faster and quicker in motion than the snake. Speed, agility and strategic flexibility are the key," says Ravi Shroff.

From the Mediocre to the Exceptional

Three Stories: Questions, Handicaps and Job Rotation to Unlock Potential

The phoenix rises from the ashes. Cinderella rises from the cinders to become a queen. The ugly duckling becomes a beautiful swan. They are all transformed into the very thing they never thought they could be.

Why are we enchanted by tales of transformation?

Because they are inspirational. Because tales of transformation in real life—sometimes dramatic, often subtle—are stories that reiterate the potential of human beings to overcome their ordinariness and rise to their latent extraordinariness. Excel's history is sprinkled with such stories, born from Excel's belief in the dormant potential and goodness of human beings.

We share here three stories from Excel's early and recent history that illustrate how Excel has nurtured its heroes.

Three Questions

Rajkumar Korde tells us his story.

"I joined Excel Industries in Mumbai in 1979 as a chemist. I was like any other regular employee, doing whatever I was assigned. One day, S.P. Iyer, the production in-charge, asked me, 'What are you doing?' I took it as a routine question. So, I confidently described all the chemicals I was testing. Halfway through, he interrupted me impatiently, 'All that I know, **but what else are you doing**?'

"I was stumped. When I did not answer, Iyer Sir was more direct. 'I know you are doing everything that your seniors assign you. But are you thinking of doing it in a different way, a better way?' Iyer Sir asked me. That sort of shook me. I realised I could go **beyond** my job! Simple as it sounds, it was a revelation to me. Self-initiative was the force that would take me forward.

"Look for the positive in people; forget the negative. Learn from the natural world, the physical world and the world of animals."—Kaka

"I had a technical question that had been bothering me for a while. I thought I would get my answer from our senior R&D Manager, V.D. Deshpande, so I approached him. Deshpande Sir did not invite me to sit down for a 'technical chat' as I had anticipated. He looked at me long and hard before he spoke.

"'*Tumhare peeche kya hai?* What is behind you?' Deshpande Sir asked me. Perhaps there was something trailing behind me… I turned around to look behind me. I saw nothing unusual; just the old cabinet that was packed with technical journals. I still did not grasp what he was trying to tell me." There is a hint of lament in Korde's voice.

"Deshpande Sir came to the point. '*Inko padho*, read these books. Pick them up one by one. If you don't find an answer, or you don't understand what you read, come back and ask. I am always here.' I realised then that V.D. Deshpande did not want to spoon-feed me. I had to learn how to learn, to make use of existing knowledge.

"The third question came from Kaka, Kantisen Shroff. It was one of his favourite questions, a question he must have asked countless employees.

"Kaka pointed to an image of Sage Dattatreya and asked me whether I knew who Dattatreya's gurus were. Unfortunately, I was not well-versed in the scriptures. But by now, I had learnt that I would have to find out on my own.

"An assortment of people and animals are found around Sage Dattatreya, such as an elephant, a crow, a fish, a dog, a deer, a caterpillar, a python, a bee, a spider, a blacksmith, a girl, a child, a courtesan, an archer… Dattatreya had 24 gurus, including the sun, moon, air, sky, water, ocean and fire…"

We ask, "What was the significance?"

"The next day, I met Kaka again, and what he told me has remained with me as a very uncomplicated practical philosophy that I have tried to incorporate in my life. Lord Dattatreya was in search of an accomplished guru, but could not find one. That was when he followed the voice of his soul.

"'Who is a Guru? He is not somebody on a high pedestal, somebody who knows everything. Everyone is a potential guru. Become a true disciple. Look for the positive in people, forget the negative. Learn from their strengths and weaknesses. Learn from the natural world, the physical world and the world of animals.'"

Korde pauses and then continues: "Many a time we blame our destiny and the world for not giving us the opportunities to forge a successful career or a fulfilling life. I was like the zero-watt light bulb, plugging into my minimum potential. The three questions helped me realise that I could be a 100-watt light bulb or even a 1,000-watt bulb, if I chose to be so. The questions helped me switch on."

Amrut Lad: The Self-made Designer

Mention is often made of indigenous fabrication of machinery and plants by Excel engineers. Many have gone unnamed, but in 1967, Excel could speak of a highly valued young man, then barely 32, who had shown a remarkable talent for the design of machines for various processes by the time he was barely 20, and had been named Excel's chief design engineer.

His name? Amrutlal Lad, the carpenter's son.

In 1956, Lad met with an unfortunate accident: a large quantity of sulphuric acid fell on him and burnt his legs badly. He was confined to bed for several months, dejected.

Kaka visited him often and motivated and encouraged him to explore new avenues even in this disadvantaged state. Lying flat on his back—the only posture permitted him by his doctors—Lad began to repair old radios. Even in severe pain, his energy never flagged. He started studying radio electronics and other subjects. All this gave him a good opportunity to acquire theoretical knowledge and insight into process equipment, which later was to prove of great help in his field.

The accident proved to be his cloud with a silver lining.

Once he was back in action, it soon became apparent that his real talents lay in engineering and fabrication. He moved to the workshop and soon acquired high technical skills. By 1967, Lad had built a well-knit team of talented engineers who were equal to any challenge in designing and fabricating a wide range of machines. They included fluid energy mills, thin film evaporators and entire plants for manufacturing a variety of pesticides and organic chemicals.

The significant part of the story is that Lad had joined Excel as a student apprentice when he was only 14. He continued to pursue his studies and matriculated two years later. Instead of going to college, he chose to remain with Excel as a full-time laboratory assistant.

What needs to be remembered is that Lad's talents were fully matched by Excel's faith in him.

Jack of All and Master of Many

C.A. Mehta, a veteran ex-Excelite, shares his experience. "Excel valued our worth, they launched us like kites straight off the ground, on a strong, long line, without worrying about our qualifications. The challenges and Excel's confidence in us provided the gust of encouragement to enable us to climb high in the sky. The family elders were our respected 'vadils', never our bosses. They held our strings lightly in their hands with love and care, making sure we never touched the ground. They tugged at our strings from time to time with new opportunities and experiences, and always kept us airborne.

"A mechanical engineer, I was given the responsibility of presenting the design of an indigenous new chemical plant to a highly acclaimed expert team. A *shurvir* of science or a *nishnant* (expert) with his nose deep in numbers would be asked to take charge of human relationships, and a people's person could be asked to operate a plant."

Job rotation is the norm at Excel: the teams move in and out of diverse experiences. Qualifications or departments are never boundaries.

"With so many diverse challenges and opportunities thrown into our laps, we overthrew the age-old maxim, 'jack of all, master of none'. We grew to be jack of all trades and master of many. Nobody was useless. Take Bhagubhai's case. Excel moved him from job to job, till he found his 'calling', something he enjoyed. Bhagubhai was a master at manoeuvring the tractor!

Maya Gandhi, currently Senior Manager, Directorate and corporate communications at Excel, who has had a long and varied stint at Excel, recounts her experiences.

"Excel was a university, and not only for the corporate and industrial world. It was a training for life. Anyone with a few years of grounding at Excel, excelled, wherever they went, as entrepreneurs or as leaders.

"Kaka shared what he read and learnt with everybody—whether it be with the office attendant, his secretary, an engineer or manager—without distinction or discrimination. People left his table wiser. Kaka believed that the seeds of knowledge sown with love would bear fruit when the time was opportune. It was this belief in people's capacity to reach beyond their own expectations and the simplicity of the training that enabled Excel to work with unlettered, untrained people nobody else was willing to employ: convicts, inmates from a leprosy home, notorious local communities, local women who had not stepped out of their homes or tribal people.

"People were groomed to shine like diamonds.".

People excelled because Excel believed in people's capacity to excel.

The Power of Why

Ninety and Counting, Kaka and Dr Attreya Look Back

"The music was his, the words were mine," recollects Management Consultant Dr Attreya. Dr Attreya has been a management consultant since 1955 and a pioneer advocate of excellence.

He is referring to C.C., the founder of Excel Industries. "While I was talking about the science of management, he was already practising the art of management."

Kaka, sitting next to him, smiles. He too is rolling back the years.

"Time management was the first exercise we undertook together," Kaka recalls. "The brothers' reverence for their mother and respect for each other were exemplary. Ma had taught them a vital management lesson: the art of unobtrusive management. For her, management had a simple credo, *taking care*. 'You take care of

…those good old days. Prof Attreya and Kaka catch up at 90 plus.

others. I will take care of you,' she would prompt them from time to time."

The two men fall silent, each lost in their thoughts. Ami, who is recording their words, prods them to speak of the little and big things that had stayed with them across the years.

Both Kaka and Dr Attreya are in their mid-90s. Their association began in the early sixties. Their relationship went beyond a mere professional association. And they were more than colleagues or friends.

Speaking of excellence, they remember how G.C., Govindjibhai Shroff, never allowed Excel to compromise, because that was what C.C. had set as a benchmark. Excel made food-grade Phosphoric acid that had a purity of 99.9 per cent. This was used to acidify foods and beverages such as colas and jams. It provided the tangy or sour taste.

The vagaries of the market are sudden and can topple equations. The demand for food grade Phosphoric acid had flattened out. There were no buyers for the price at which it could be sold. Excel could have manufactured a diluted, less pure Phosphoric acid and catered to 'lower' market needs.

But Govindjibhai had said, "I don't want to sell water. When I can produce the best quality, why should I make something of an inferior quality? Because that sells? We are in business to sell our competence, and not merely to make money."

"When the why we are doing something is understood, many pathways open up…the what can take many forms; the possibilities are limitless." — Kaka

Excel's motto is simple: "What nobody can do, we have to do!" That was the challenge they thrived on: carving a path where there seemed to be a dead end.

In fact, the brothers worried when someone else had *not* copied them. When that happened, it was a cue to get onto something different, get onto something bigger. "To make space for other things, in the mind and in the factory."

C.C., G.C., and K.C. did not believe in patenting of processes. "We want our next generation to stay on their toes." The self-confidence of C.C. and his brothers in their ability to develop new products "quickly and cheaply", coupled with their sense of patriotism and a higher purpose for the business, permeated into a reasonably free sharing of knowledge and ideas, both within the company and with visitors and business associates.

That is why, instead of monopolising a product, when someone wanted to make it for their own need or to serve an expanding market, the knowledge and technology was shared at fair value. For example, aluminium chloride for Colourchem, or several plants of Malathion, an important public health insecticide.

The Excel founders firmly believed that the *why* is more significant than the *what.*

Taking care was Ma's simple management credo and this translated to Excel's family culture. Celebrating Pappa's day was like a great family reunion. Ushabhabhi, Mummy and Kaki at the celebrations.

"When the *why we are doing something* is understood, many pathways open up… the *what* can take many forms; the possibilities are limitless," Kaka tells us; this is one of his favourite maxims.

"Excel was founded to help a young independent India attain self-reliance and economic independence. National relevance, social relevance and environmental relevance—both then and now—are important *whys*."

Their complementary strengths made the founder generation an unbeatable team. Pappa was the technology generator, the mastermind, the alchemist who dreamt processes, developed solutions that were elegantly simple, ingenious and made with indigenous raw materials and infrastructure. The emphasis was on affordable processes that were appropriate to the context. It did not matter if the process was considered outdated, as with Oxalic acid that drew on a process that others considered obsolete, or if the quantities required were miniscule as with SO_2 and Cupric Chloride.

Kaka was the engine, the artist, the practical visualiser that gave force to ideas and brought them to life at the plant scale. As Kaka used to say in jest, "I had the 'finitiative'."

With his managerial capabilities, Govindjibhai made processes an industrial reality, ensuring the means were as pure as the end: a basic ethics in dealing with people, internal and external and governmental. With his unwavering straightforward arrow, Govindjibhai tackled the monopoly of the MNCs, who were not keen that Excel attempt to manufacture products such as Endosulfan or Glyphosate.

Together, they were unbeatable in transforming research into marketable products.

Dr Attreya encapsulates their traits: "The path maker, the risk taker… meet Pappa. Think in concrete terms… meet Bhai. Freedom from fear, freedom from limitations… meet Kaka.

"Pappa's untimely death was a 'bolt from the blue', but Govindji and Kaka pulled Excel up; they made things happen. Their greatest asset was their ability to draw the best from people, their belief in people's innate strength, their positive attitude that always saw people 'doing right': an approach that stretched people's confidence in their capabilities."

Dr Attreya sums up grooming and learning at Excel. "C.C. was not merely a scientist himself but made scientists out of his colleagues, lettered and unlettered. Kaka was the same. Pragmatic people as they were, they put an emphasis on **doability** rather than on formal qualification. It is one thing to know and another to be able to use what you know."

"Whenever somebody said, 'I do not know anything in this field,' Kaka would say, 'You are then the right person to do this job. You have nothing to unlearn!' Invariably the person did more than was expected of him; he believed in himself, because Kaka believed in him.

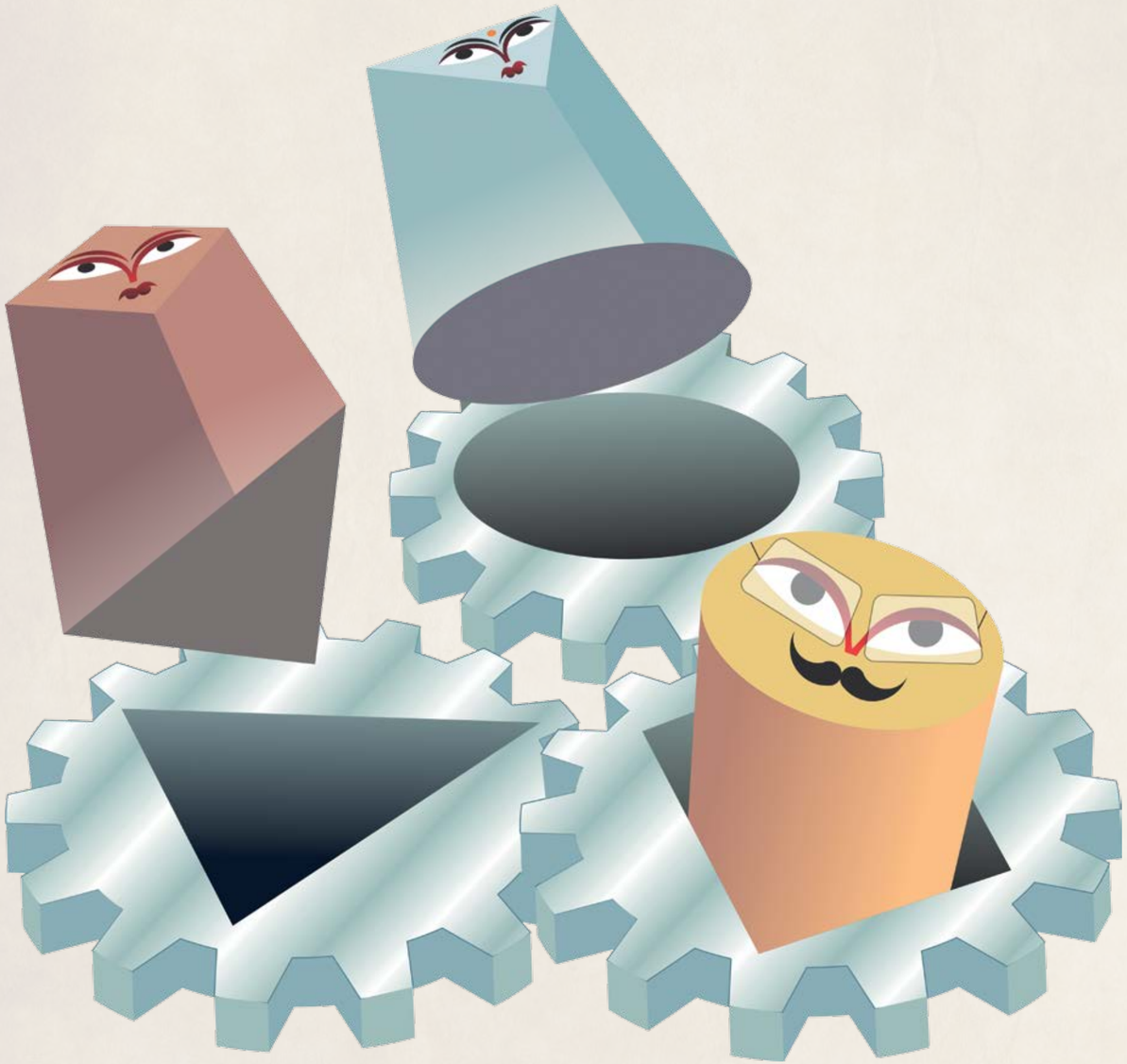
"Whenever I saw Kaka at work, I was reminded of Michelangelo of whom it was said that he had an hour glass bearing the inscription, '*ancora imparo*', 'I am still learning.'"

It was perhaps the best tribute that Dr Attreya gave to Kaka.

At 93, Kaka is still a spirited learner. "No time is the wrong time for doing the right thing!" Kaka's last words echo in our minds.

Round Pegs in Square Holes? Not in Excel!

Opportunity, Responsibility, Authority over Blame, Excuse, Denial



"When round pegs are hammered into square holes, and square pegs are squeezed into round holes, the result is burnout, boredom, apathy, demotivation and quick turnovers. But what happens at Excel?"

"When it was time to choose a professional stream, I ignored my childhood passion for electronics and blindly followed my friends to the chemistry classroom."

K.T. Ramkrishnan's story was not very different from that of countless students across India, who ignore their true calling when choosing a career stream. When round pegs are hammered into square holes, and square pegs are squeezed into round holes, the result is burnout, boredom, apathy, demotivation and quick turnovers. On the other hand, Excel boasts of committed employees who have worked 25, 28, 29, 33, 35, 39 years and more.

Luckily for K.T., the flexible atmosphere at Excel enabled him to volunteer for tasks he loved and excelled at. Before K.T., the electronic magician, came on the scene, work at the Roha plant would come to a grinding halt whenever one of the sensitive instruments broke down. K.T., then a chemist in the QC lab, offered to repair them, minimising the downtime. Bravo! K.T. became the de-facto technician in charge of repair and maintenance of electronic equipment.

His big chance came when Excel decided to set up an instrumentation centre at Roha. "My background in chemistry was an advantage, I could evaluate our needs with greater insight. I upgraded my knowledge by visiting exhibitions. I was also given the opportunity to visit Germany. Promoted from QC to head of the instrumentation department, I became totally immersed in my job. Next came energy conservation, a new challenge and results that were measurable. Today, I look after engineering services, utilities, electricals and instrumentation."

K.T. concludes by saying, "Three things are critical to get the best from each individual: ***opportunity, responsibility*** and ***authority***. Otherwise you end up with **blame, excuse** and **denial**."

K.T.'s is not the only story.

Suryaji Kadam, with encouragement from site manager Mr B.V. Gandhi, moved up from being a peon to looking after typing and telex services, collecting and reporting production figures, then to roles in administration and accounts, ERP and costing. "Everyone's cooperative nature and regular training in new skills made this possible. But the *koshish*, the hard work to learn, was all mine," he says with justifiable pride.

Hashiram Manchekar had two offer letters in hand when he completed his BSc. "But I chose Excel." From being a QC chemist, having a stint in the R&D lab, production, pilot plant to production scale-up, Hashiram has ably fulfilled multifaceted responsibilities in his 28-year career. But the slump in 2009 bothered him; Excel was not making any new products. During a review meeting in Mumbai, he voiced his frustration. "*Hume kaam do*. I want work, give me any task, any department."

The Roha plant manager offered him HR, as there was a vacancy in this rather 'unpopular seat'. Manchekar grabbed the challenge. "My biggest achievement was resolving the issues of politically motivated absenteeism by tactfully taking the politicians into confidence. Nobody could fool me. As a technical person, I knew the job at hand and being their teammate, I was aware of their strengths and shortcomings."

Ajay Phase, another multi-specialist, finally found his calling in industrial safety after a restless start and several varied experiences. He quickly confirms the views of his colleagues. "This kind of adjustment and flexibility is rarely encouraged or facilitated by other industries here. We realise how lucky we are when we exchange notes with our friends from other industries."

Kanchan Kumar Majumdar backs up Ajay. "Our seniors and the management stretch themselves to groom us. Mr Degwekar, Operations In-charge of Roha and Lote sites, spent endless hours giving us lessons in engineering. A one-year course in engineering was also organised by the company for those who were keen to learn. A professor from a local university came every Saturday, which was a holiday, to teach us."

When we talk about this and other role-responsibility 'merry-go-round' anecdotes with Ashwinbhai, he tells us, "There was always a chance that role reversals could misfire. But generally, the gut instincts of our senior staff have not gone wrong. These decisions are taken by them. Multiskilled people have benefited the organisation. **One** can do the job of **many**. Cross-trained employees are able to take on the challenge of tasks that fall outside the boundary of their original expertise and training. They are not threatened by the uncharted as they are used to learning new skills consistently and can adapt to change." Ashwinbhai pauses before he concludes: "A multiskilled workforce moves with the workload instead of waiting for the work to come to them."

School for Entrepreneurs

Where Strengths are Recognised, Opportunities Abound

Work and learn at Excel, then the world is your oyster. Ex-Excelites become entrepreneurs in their own right with Excel's active support.

"For years, I insisted that I remain on the Excel payroll even though I was working for one of their Group companies, Transpek. Excel humoured my wish, like a mother indulges a child."

There are many like Marzban Patel, an old timer with Excel or Hindurao Jagdale whose loyalty to Excel does not permit them to work elsewhere, however lucrative the offer. Marzban failed BSc, learnt hands-on, first at Excel and subsequently during the founding years of Transpek, Vadodara, where he was 'transferred'. Darshan Deshpande, with encouragement from Excel, traversed from higher secondary in college to earning the distinction of being an environment scholar, a doctorate.

Marzban Patel

Darshan Deshpande

Since the last 15 years, Marzban Patel has been running his own chemical manufacturing unit. Darshan Deshpande has resigned from Excel recently and is an environment consultant to industries in the Roha and Lote Parshuram industrial belts, including Excel. Marzban and Darshan feel that Excel is a school for entrepreneurs.

Marzban elaborates.

"I was supplying water tankers to Excel and some other companies while I was working at Amboli in Mumbai. I learnt the ropes of business through that small enterprise. But Kaka, Kantisen Shroff, was my biggest guru. Watching him at work, I learnt how to motivate people, how to draw on their strengths and how to speak to them with respect. Excel enabled me to develop my gut instincts, I learnt to make decisions without fear, made mistakes but gained in experience.

"…And then, Atulbhai, Transpek MD, made me a 'proper' businessman. He came to my residence to personally invite me to join Parul Chemicals, a new company started by the family. The Shroffs as a family had no airs. That partnership share helped me establish my factory when I left Excel."

Darshan describes how Excel encouraged and supported his desire to study. His shifts were adjusted so that he could attend college during the day and work at night. BSc, then MSc with distinction, it was hard work and a 100-km drive from Lote to Ratnagiri, but Excel made it possible. When he wished to study for a doctorate, Excel Director Mr Potdar, gave him permission on the condition that he continue to work with Excel three years after the completion of his doctoral thesis. "I stayed with Excel for five years, and left about six months back to start my consultancy."

Marzban, Darshan and another ex-Excelite turned businessman, Makrand Joshi (Lote Parshuram), all vouched that Excel will always remain their inspiration and guide for best practices. "I try to treat my staff with the same respect that Excel gave me," Makrand tells us.

"Respect, honesty and concern for people," Darshan says, listing his most important takeaways from Excel.

C.A. Mehta, Marzban and D.B. Mehta list some of the entrepreneurs of their time, who also started businesses while working at Excel. Entrepreneurs were encouraged in trading and supply, services and maintenance, and manufacture of equipment and chemicals. For instance, Vaman Industries manufactured Phosphorus Pentasulphide, Freezeco provided Excel chilling and refrigeration services, ABM Engineers design and fabrication services.

"It was a sort of backward integration," Atul Shroff tells us.

While the world swears by outsourcing to cut costs, Excel experimented with 'insourcing' to retain and reward their talented team.

"Give me a hundred dedicated young men, and I will transform the country," is what Swami Vivekanand had said. But Govindji Shroff (Bhai) used to say, "I will create dedicated entrepreneurs with a national outlook and philosophy of trusteeship, who will be bereft of greed."

"We Started with a Failure"

"The first time we participated in the Krishi Mela, we could not sell anything.
We did not tell our husbands about our failure. We hid our unsold stocks in our outlet before we went home.
Though it was an abortive attempt, it was still a good beginning. It made us more determined."

This group of women had been encouraged by the Shroff NGO, VRTI, Mandvi, Kutch,
to form a group under the self-help groups programme.
They took a small loan from their *bachat-mandali* and invested in a small business,
husking grain, pounding masalas, selling *moong, bajri* and other agricultural produce.

"More than the money, we value the confidence and respect we have earned.
Today, we are not afraid to go to the local district development offices to sell our wares.
We are very pucca on quality, so people seek us out, they call us on our mobiles to ask for our produce."
"Slowly, persistently, consistently, profits have followed."

Encouraging local entrepreunership has been a strategy
that Shroff NGOs have followed across the board—
setting up 'ghanis' (oil mills), rice husking machines, providing farm equipment such as tractors on hire,
teaching tribal women to make and sell organic fertilisers and pesticides
and helping widows set up their own businesses…

Proud entrepreneurs, the women from a village in Mandvi taluka.

"Welcome, Welcome, *Lote ke Bhagwan*!"

Understanding the Man and Your Responsibility: Why Strikes Don't Happen

Emotions run high with Diwali bonuses.

It is a once-in-a-year opportunity for families to 'splurge' on little luxuries. Clothes, utensils, that small refrigerator… small and big wish lists… 'to Diwali' or 'not to Diwali' depends on the bounty of the bonus.

Today, performance-based bonuses are the norm, but in the old-economy industries, especially manufacturing industries, a Diwali bonus that is given every year becomes a perk that employees, especially blue-collar workers, take for granted, and something that families wait in anticipation for, through the year.

In the 1990s, the workers of the Bhavnagar, Roha and Lote Parshuram were not satisfied with the Diwali bonus they were offered. They demanded a higher package. They sat in protest at the factory gate and went on '*uposhan*', fasting by turns. The family juniors stood by and attended to their comforts.

Diwali was around the corner. The lamps were ready. Traditional sweet and savoury recipes had been re-visited. The *rangoli* designs were planned. Shopping lists had been made… All that was needed was the word 'yes' from Kaka, their CMD.

The union leaders decided to go and meet Kaka, then living in the factory guesthouse at the Amboli plant. Their fingers were crossed, their lines rehearsed for dramatic impact. Their demands were laced with the fire of desire and protest. Chandrakant Chalke, today an HR Manager at Lote Parshuram, was among the leaders who went to meet him. Years later, the memory of the reception that Kaka gave them when they reached Amboli was still fresh in his mind.

"When we rang the bell, Kaka opened the door and welcomed us inside with a warm smile. 'Welcome, welcome, *Lote ke Bhagwan*,' he said half in jest, half in seriousness. I couldn't stop myself from smiling back."

This was so characteristic of Kaka.

"'You must be tired after jostling with the festive crowds. Did you get a seat on the bus?' Kaka inquired as he invited us in. 'Make yourselves comfortable,' he told us. Over a cup of tea and a plateful of homemade savouries, he asked about our spouses, our parents' health and our children's

Kantisen had the eye to look inside the hearts of men and women. "Every human being will respond positively when treated with love and respect. Above all else, we all want to be understood and appreciated."

progress. He remembered so many of them by name. His interest in our lives was genuine."

Chalke continues, "We were taken aback by the warm welcome. We had expected to be scolded, reasoned with, perhaps bargained with…You could say we were dumbstruck, and we calmed down."

"That night we had dinner with Kaka and the family before we returned to Lote. The strike was not even discussed. Somehow we were hesitant to broach the subject... When we were at the doorway, Kaka said, 'If you don't celebrate Diwali, we will not celebrate Diwali either.'"

"Back home, we thought about our demands, discussed them with our co-workers. The majority were of the opinion that we were making difficult demands. The family had always been more than fair to us. If our demands were justified, we would never have needed to ask. With the consent of our co-workers, we accepted the bonus we were offered."

Kantisen had the eye to look inside the hearts of men and women. "Every human being will respond positively when treated with love and respect. We all want to be understood and appreciated above all else," he often said.

Demands and discontent… from children, spouses, other family members, colleagues at work… this is something that we all have to learn to deal with. We can react and intensify the conflict and harden the divides, we can meekly submit and compromise on what we believe is right to avoid a conflict, or we can melt differences with empathy and love. If we manage to separate the person from the issue, we can minimise misinterpretation and misunderstanding and concentrate our energy on problem-solving.

Bhai, Govindji Shroff. In their own way all three brothers, Pappa, Bhai and Kaka found their way to the hearts of their co-workers.

Excel has the distinction of maintaining cordial relations between the management and the workers since its inception. They have respected the rights of the workers to present their demands since the days of Pappa, way back in the 1950s. When C.C., the founder, sensed that one of the workers was brewing discontent, he called him and invited him to form and lead the Excel Workers Union. "I welcome any activity that will keep my workers happy. It will be a burden off my shoulders."

"It is not about solving union problems, it is about preventing discontent," believes Ashwin Shroff.

The Excel leadership echoes the thoughts of Richard Bach: "The bond that links employers and employees as family, as community, is not one of blood but of respect and joy in each other's life."

> When a leading journalist had asked Govindji Shroff what the secret of Excel's strike-free history in the last 43 years was, he had replied, "Only one. Understand the man. Understand his feelings. Remember your duty towards him and what his expectations are from you.
>
> "In India, generally speaking, workers are balanced and understanding. Outside leaders mislead them for their self-interest. If we are not in direct communication with our workers, they would be misled like a herd of sheep. Often, when there is the possibility of a strike, the managing director leaves the city or the country, passing on the responsibility of handling the situation to the personnel manager. We have never done it."

The Plant was Our Playground

Hard Work and Experimenting: Even the Promoters have to Deserve their Post

The training was tough not only for the Excel daughters-in-law, who transformed every remote and inhospitable plant site into a home for workers with their sweat and toil, but for all. Everyone had to begin at the bottom of the ladder and haul themselves up. Ask Shruti and Preeti, and they will regale you with tales of kitchens without rolling pins and cooking pots that had to keep hungry workers grounded when basic necessities were hard to come by.

Marzban Patel, an early Excelite who had worked very closely with Atulbhai at the Jogeshwari, Mumbai plant, and later, in Baroda during the early decades of Transpek, remembers how he and Atul Shroff worked hard at the aluminium chloride plant. "Perhaps it is difficult for you to imagine the heat inside the chlorine reactor. Atulbhai would go right into the far end of the experimental horizontal reactor and, with a spade, the kind used for shovelling coal in steam engines, remove the last remnants of the material at the far end. Sweating profusely, he was all smiles when he emerged from the deep with the 'last loot'. We developed a lifelong friendship as we laboured together, lived together, ate together and zipped around Baroda on a scooter." Marzban Patel slipped into the magical memories of those early years.

Dipesh Shroff, virtually born and brought up in the plant, was a reluctant entrant. "I hated chemistry because of some early unpleasant experiences in school," he recalls. He trained as a civil engineer and, for some time, ran his own office, before Ashwinbhai, his elder brother coerced him to join the business. "I wanted to run from the so-called second-generation jinx."

Even while he was training to be a civil engineer, he had to intern at Excel. His first assignment made him the plant's '*gutterwala*'. He had to look after the Effluent Treatment Plant. "My father, Kantisen Shroff, like Govindjibhai, was a demanding teacher. As I had professed interest in construction, I was asked to design and fabricate a four-storey steel structure single-handed. And I could not do any '*chun cha*' (protest)."

But Kutch was Dipesh's toughest challenge. His father, Kantisen, set before him a seemingly impossible task. He had to transform a 16-acre saline unyielding land into a productive field! Kaka would say, "*Daro mat, aage badho* (Move on, don't be afraid)." "It took me five years of carrying *gobar* (cow dung), *bakrini lindi*s (goat excreta), dry leaves and whatever organic waste I could lay my hands on, to produce a Midas touch. I soiled my hands with all that 'shit' but I learnt about microbial action first hand."

Shruti and Atul Shroff at the Roha *khat muharat*. Little did they know that the barren plant would become their home.

From left to right: the Excel soldiers C.A. Mehta, J.S. Gosalia, Navin Ashar and Subramanium.

"Our plant became a playground where we trained hard. We started at the bottom of the ladder and hauled ourselves up."

That product made history… From Dipesh's '*tokri*' on the head, it has begun its journey… Celrich, OWC, MobiTrash.

Ashwin Shroff, the eldest of the three cousins, a science graduate in physics and chemistry, also worked his way bottom up. The job rotation route helped him build an encyclopaedic understanding of the workings of business as a whole, before he took on the mantle from Kantisen in June 1995, 30 years later. Starting in the chemical laboratory at the Jogeshwari site, he spent the next phase of his training at the Amboli factory. Here, he learnt the ropes of shop-floor management, efficient management of productive assets, processes, materials and manpower. In the seventies, he was inducted into corporate affairs. His uncles took on the space left vacant by the sudden demise of his father. G.C. Shroff, Bhai, instilled in him the entrepreneurial acumen, courage and forthright honesty. Kantisen taught him the value of knowing everything first hand and the value of perfection.

Usha Shroff, his life partner, a Masters in commerce, recounts how she became an expert in the basics by beginning at the lower end of the rung in the accounts department. At that time there were no computers, and all calculations had to be done manually. Ashwinbhai remembers her tenacity when she struggled to balance the accounts in the early days. She did a stint in various departments—sales tax, excise, income tax, administration, Roha unit in-charge and much else—before she earned her position on the board of directors. "Even the promoters have to deserve their post."

Ravi Shroff chose to put himself in a corner that pinched when he decided to start at Anshul Chemicals, a loss-making enterprise. The experience he gained over those seven years, catalysing a turnaround at Anshul, have given him a sharp grip on how to sit in the driver's seat when things seem to be going out of control.

Hrishit, Ashwin and Usha's younger son, a Chartered Accountant by qualification, recounts the unusual training Shroff children go through. When he joined his uncle and boss Dipeshbhai at Excel Crop Care, he was not given a role in Accounts but in new concepts like Risk Management and ERP. Not only that, he was sent to factory shop floors at Gajod, Kutch, and then to Bhavnagar, where he spent three years each, rubbing shoulders with shop floor colleagues, and getting to know other plant colleagues. Dipesh Shroff, is a firm believer in the value of de-schooling and practical training. "Hands-on was a totally new perspective for me, as I liked to resolve things on paper, organise everything into orderly boxes… unfortunately, life is not made up of neat boxes," adds Hrishit.

He also remembers how his mother, Usha Shroff, took Ravi and him to Roha during the vacations. They would go with a bunch of school friends. It was always fun and each summer there was something different to dig into. One summer, they tried their hand at carpentry; they also pottered around in the garden and learnt to relate to plants and hone their gardening skills. "But I loved what I did in the carpentry shop the most," Hrishit tells us.

When asked what he wanted to do, Chaitanya had announced that he wished to pursue agriculture. "Everyone was shocked," he recalls. "Everyone before me had opted for chemistry, engineering or accounts. In order to gauge my seriousness, I was sent to VRTI to intern in agriculture. I walked the fields, talked to farmers, ploughed the fields, engaged in field operations and even learnt how to milk cows. When I came back three months later, Dad repeated his question. 'What do you want to pursue?' I reaffirmed that I wanted to pursue studies in agriculture. Now Dad believed my interest was genuine.

"I worked in the Bhavnagar plant, and being the very youngest in the family, my suggestions were sometimes taken with a pinch of salt. I learnt how to make my point, despite my age."

While everyone's training years at Excel has had the hilarious and the hard moments, Hrishit captures it best when he says, "The most valuable thing we learnt to cherish was our **legacy of genuineness**."

The toy factory team. Kaka trained everyone to paint the popular Madhu doll. Young Chetna, Ashwin & Atul with the toys and toy makers.

And Dipesh believes their lucky charm is the love that was showered on them by all the Excelites. "The plant was our playground. I was their '*dipudiyo*'. They were still there when I started working and later took charge. Some of them had carried me on their shoulders when they walked from Jogeshwari to Amboli. They never wanted me to fail."

Home-grown Alchemy

Excel Industries celebrated its 75th year in 2016. As a commemorative gesture, Ashwinbhai considered the idea of organising a walk from Andheri station to Amboli, where the second factory of Excel was located, where the range of its products was broadened to include Aluminium Chloride, Malathion, Red Phosphorus, Aluminium Phosphide and Zinc Phosphide, among others. At Amboli, many nationally important processes were mastered, adding to the number of indigenously made products, and thus reducing the national burden of importing products.

Excel was the second company globally, after Monsanto, to make Glyphosate, a weedicide for farmers. Govindjibhai's decision to make it was an echo of C.C.'s acts of constructive defiance.

It was also the last breathing place of the founder, C.C. Shroff, who passed away "in harness" on 3 January 1968, working in his beloved laboratory, having seen Excel's sales grow from Rs. 50 lakh to Rs. 2 crore from 1964 to 1967.

The idea of the 20-minute walk was welcomed. It was to commemorate the service of all who played their part in what has today become a company known for its nationalist spirit, joy of togetherness in learning and working, and its emphasis on real values.

Around 50 people joined in, walking towards Amboli and remembering Excel's earlier days, the multiple breakthrough processes that were born here, and jokes they had shared through long nights of crucial experimentation. Everyone enjoyed the nostalgic walk. On reaching the site of the earlier Amboli factory, where now all residential buildings stand, they were welcomed by the priest of the temple built by Excel and still retained with reverence by the residents of the society.

"Kirtibhai Shah, who was deeply involved in Excel's journey, was able to reel off so many simplifications of processes that we discovered! It opened up a great swathe of joyous memories for me," recalls Ashwinbhai.

In this significant year, we remembered the founding father's beliefs.

C.C. Shroff's strong belief in God led him to believe that there is no essential difference between science and religion. If God is everywhere, he argued, then surely, He must reside in science as well! He felt strongly that science is in the image of God.

Excel reflects this sentiment. At every Excel plant site, a simple temple is the nucleus, where the staff are free to offer obeisance to God. Then they move on to pay homage to their scientific work.

From Andheri to Amboli, walking down memory lane, homage to the founder C.C. Shroff.

The Spirit and Dimensions of Innovation

The Significance of Competence, Expertise and Values

Could the game of Lego have found its genesis in Excel's early, single-acre plot in Jogeshwari? The plot displayed all kinds of equipment, spare parts, improvised pieces of wood and metal, curious pick-ups from scrapyards, anything that could possibly see some use. The randomness had purpose. Visitors were sometimes astonished to see Excel's plants being modified almost overnight to prepare for new products, so that they were almost like mechano sets with moveable, changeable parts!

Even the air probably wafted the spirit of affirmation over that plot, where the attendant carpenter, electrician, glass-blower, and other job-rotated Excelites worked and experimented on products in tandem. Challenges were encouraged in a spirit of experimentation. "I will either find a way, or make one!" C.C. declared, and on a national scale, 'in-house' was new India's mantra too, to avoid import burdens on its fledgling economy. That pride of independence for both the newly formed country and the company came together in the social relevance that both valued.

After the green revolution in India, agricultural concerns went into overdrive. Food self-sufficiency was in focus and a chain of actions involving chemicals had to happen to ensure this. New varieties of grain were introduced

- fertilisers helped enhance the crop output
- pesticides kept the crop intact
- harvesting took place
- the grain had to be stored without damage
- fumigants were needed.

Excel was, at one point, the only company in the world making all **three fumigants: Methyl Bromide, Ethylene Dibromide and Aluminium Phosphide**. While the demand for the first two dipped, the third became prominent, and Excel is now the largest supplier worldwide. Imports were avoided, and India's food was stored in safety.

Customers came with motley requests.

When Excel was just a teenage company, ICI and Bayer, two international companies, asked if it could make **Methoxy Ethyl Mercury Chloride (MEMC)**. This was a sophisticated product and a small but critical component of MEMC was ethylene, a large volume gas, generally produced by large petrochemical companies, who thumbed down small orders. "We can import MEMC if you can formulate it," said the prospective buyers, in a bid to help. But Excel surprised them. "There's no need. We will make it." And they did, within just two months.

The bold, new thought was to use ethanol as a source of ethylene. Ethanol, bubbled

Excel often created new processes by improvising with the same equipment. Some clients called this the wizardry of simplicity.

into Phosphoric acid heated to 200 degrees Celsius, would crack and produce Ethylene and water with some other impurities. But what reactor would withstand such corrosion? Back to knowledge banks and understanding the fundamentals. The collective think tank found the answer after research. Silver. No one was making silver reactors, so this too, would be made in-house. Sheets of silver were welded together to make it. Even the plant was assembled with available equipment, and was not newly fabricated. Small quantities were made. Then, as scaling up happened, the reaction mechanism revealed all its secrets, so that the process could be simplified further, leading to a standardisation of the plant and a saving of time, money and effort.

MEMC became one of the first pesticides that Excel developed. As D.B. Mehta would later put it, Excel succeeded in minimising the **cumulative response time**. They would do this over and over. Today, the need for break-neck speed in deliverables is a given, providing that edge in attracting and retaining customers.

Earlier, in 1956, manufacturing Sulphur Dioxide had a similar process of innovation. The standard procedure of burning Sulphur in the air gave Sulphur Dioxide diluted with air. Moreover, complex equipment would be needed, and the danger of corrosion was ever-present. How could they produce just one ton a day of pure liquid SO_2 to meet the Mumbai-based Stanvac Refinery's needs? Again, a plunge into research, books and a study of the fundamentals yielded possibilities. But the eureka moments came over time. Excel took the road less trodden and chose the unconventional process of reacting sulphur with sulphuric acid considered viable till then only for laboratory experiments. Excel visualised a compact plant with a plastic balloon as a gas holder, factoring in corrosion. Yes, a simple procedure was developed, at a lower cost.

The story of Celphos (Aluminium Phosphide) began with defiance, and re-established Excel's flair in taking on challenges when it was made in three months with a sample given to the government, after which it quickly started to service the market at a reasonable price.

Cuprous chloride was made for removing Sulphur impurity from crude oil for Stanvac Refinery in four days.

Excel has never been afraid to look at new opportunities. Every technical obstacle was probed with an open mind, even so-called old production techniques and audacious ideas were considered. And thus, several products were developed for the first time in India, in a cost and time frame that was amazingly low and, yet, elegantly simple!

In fact, in the case of chlorides, once one metal chloride was mastered, Excel moved on to many more. One could almost say that the knowledge of fundamentals was the string on which Excel hung one metal chloride after another!

India is a land of festivals. Tradition asked for **crackers** during these times of celebration, and Excel obliged. Although crackers were developed as a hobby and for fun, both the raw materials, fine Aluminium powder and Red Phosphorus, along with the formulating process involved, were mastered, which helped develop skills of hazard management. On the heels of this initiation a succession of products and technologies involving hazardous raw materials, processes or products—Chlorine, Phosphorus, SO_2, Acetylene, H2—were mastered, as also pesticides and intermediates like Mercurials, Aluminium and Zinc Phosphides, Endosulfan and Butene Diol.

Design was a crucial part of innovation, but the core of it all was the grasp of fundamentals. This was so in the in-house design and production of a Phosphorus burner for Phosphoric acid, as also in the indigenous process for lining the yellow Phosphorus furnace to withstand a boiling 1,600 degree Celsius temperature.

Nothing was wasted. Not even waste.

C.C. had recovered silver from film waste, then experimented with making camphor from it. Chlorides and chlorine-based products were based on cheap and abundant raw material, as in the case of chlorine from caustic chlorine industry.

The idea is to convert waste to value, something that continues from C.C.'s mother, Ma, to Gen-III.

Transpek Industry Ltd was set up in 1965 initially for manufacturing transparent **acrylic sheets**. There lies the origin of the word "Transpek". Off and on, Excel played with plastic, including plastic cane. The waste was imported from the West. Excel cracked it, converting it from polymer to monomer, then cast it into sheets reconverting it to polymer, using its own developed process. Similarly, oxalic acid used sugar, which was then easily available and further substituted sugar with golden syrup, a by-product waste of the starch industry.

Every scrap with some promise was garnered and put to use. A less known but interesting observation is that Excel made different metals recovered from used bullets.

Compost branded as "Celrich" was made from Municipal Solid Waste, and Transpek mastered through biofilter technology, the reuse and recycling of water, both of which are growth stories today.

There is no magic **open sesame** or **abracadabra** to how it was all made possible. And smooth seas do not make skilful sailors. Competence, expertise and values: these small words packed with immense significance sum it up.

And of course, Kaka's famous word, *riyaaz*. The crucial stages of practice, of small rehearsals, because in an industry full of hazards, no detail is small enough to ignore.

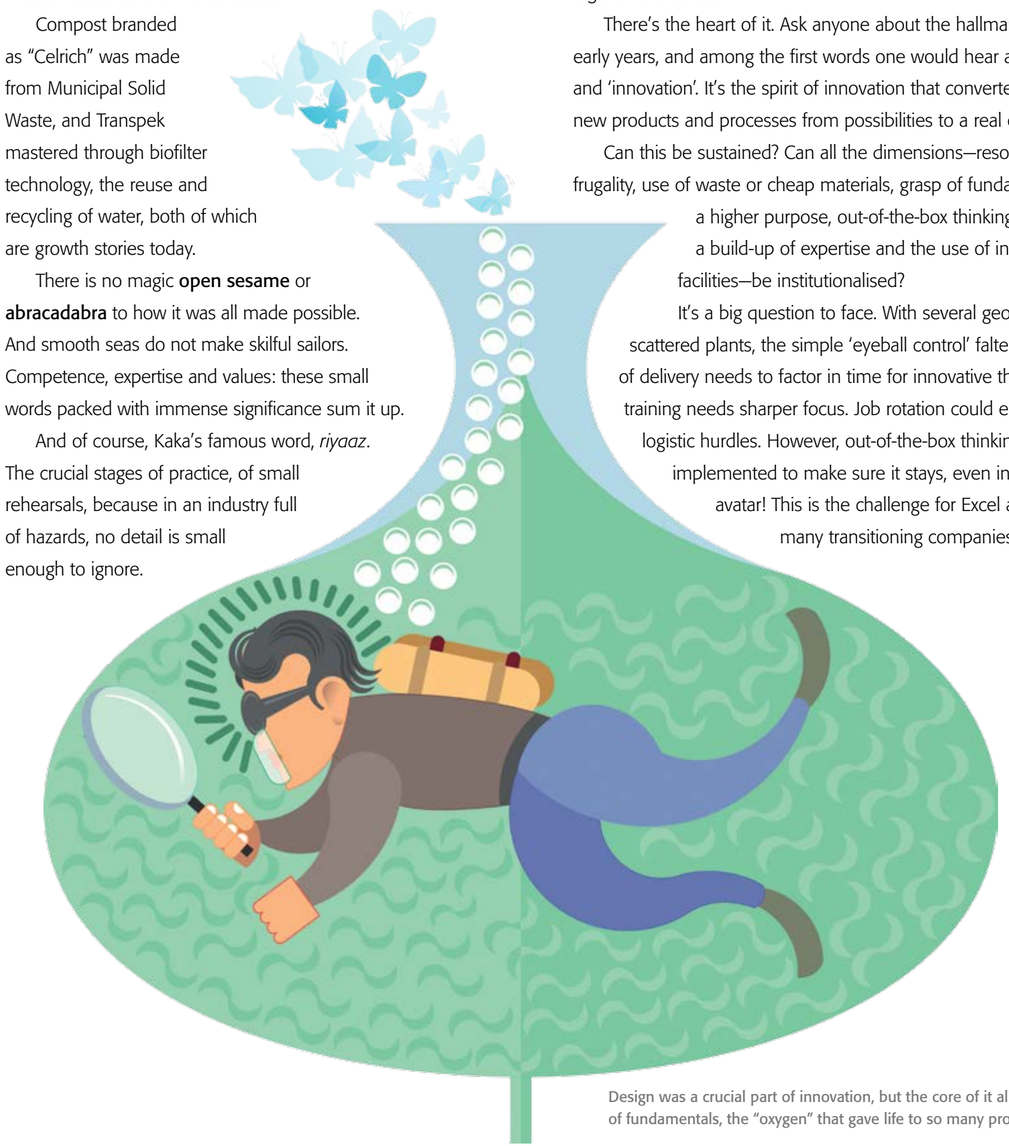
Kaka may have used this musical term knowingly, because in every art, there is a hidden science, and surely there's an art to science? The rhythm of Excel's tableting machine was music to Pappa's ears; even in his sleep, he could detect a change. And how satisfying to bring innovative changes, whether in composing a *raga* or a chemical!

There's the heart of it. Ask anyone about the hallmark of Excel's early years, and among the first words one would hear are 'ethics' and 'innovation'. It's the spirit of innovation that converted all the new products and processes from possibilities to a real evolution.

Can this be sustained? Can all the dimensions—resourcefulness, frugality, use of waste or cheap materials, grasp of fundamentals, a higher purpose, out-of-the-box thinking, speed, a build-up of expertise and the use of integrated facilities—be institutionalised?

It's a big question to face. With several geographically scattered plants, the simple 'eyeball control' falters. Speed of delivery needs to factor in time for innovative thinking, and training needs sharper focus. Job rotation could encounter logistic hurdles. However, out-of-the-box thinking can be implemented to make sure it stays, even in a changed avatar! This is the challenge for Excel and for many transitioning companies today.

Excel and Plastics
Toys
Cane
Acrylic Sheets—from waste, initially in Mumbai then in Transpek, Vadodara
CPW—Secondary Plasticiser
Co Catalysts—PEEB, RELD
Property Modifiers—THPE
Fire Retardants—PH3 based



Design was a crucial part of innovation, but the core of it all was the grasp of fundamentals, the "oxygen" that gave life to so many products.

Excel Industries, Lote-Parshuram Plant, Maharashtra.

Excel Industries, Roha Plant, Maharashtra.

Improvisation was the Order of the Day

Fabricating Equipment and Buying Frugally

C.C. was not a chemical engineer. The engineering part of the production had to be learnt slowly and painfully. Getting equipment from abroad was either not possible or only possible at a great risk. Costs too were prohibitive.

C.C.'s ambition was unlimited. He would pore over books and seek methods for import substitution. Extremely strong in his fundamentals, C.C. constantly re-designed and re-invented.

According to Kantisen, the first "fabrication shop"—if it could be called that—did not cost C.C. more than about Rs. 20. He went shopping at Bombay's scrap shops and bought bathtubs for use as vessels and reactors. One of his early buys was a ship's pressure tank from which the boiler was fashioned. He obtained old wooden tubs and had them covered with cement to be used for storing liquids. At some later stage, he managed to get a 2-by-14 inch glass tube to work out a reaction between mercury and chlorine. To set up another sort of reaction he bought a silica tube of 4-inch diameter and a gutter pipe of 9-inch diameter. Wooden vessels, pickle jars… the purchases sound crazy, but those were the times.

Improvisation was the order of the day.

But then, C.C. knew exactly what he was doing.

As Excel grew, chemical plants were designed from economical resources that others considered defunct with an ingenious "twist"– assembled, modified and re-configured quickly by in-house "wizards": The fabrication shop, carpentry workshop, pump department, electrical department and glass-blowing units rose to every challenge.

"Frugality, patriotism and innovativeness became Excel's offerings in the *havan* of productivity."

Simple Sophistication

Carrying the Mercury 'Plant' in a Suitcase to the UK, and Winning a 10-Year Royalty

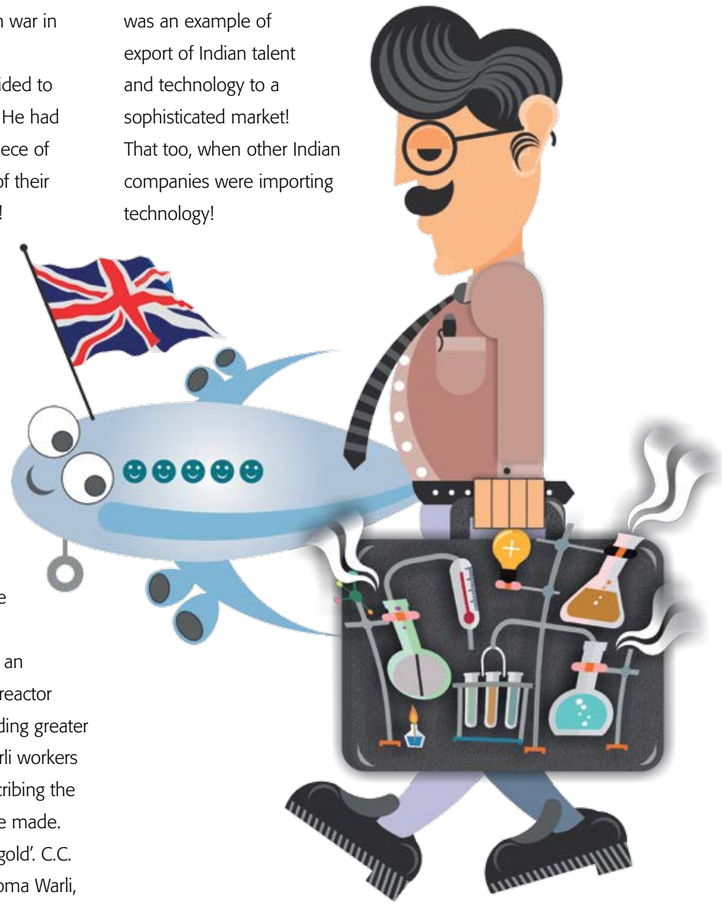
In the mid-1950s, India was yet to prove its ability to handle complex processes and manufacture hazardous chemicals. Most industrialists in India were busy importing technologies and plants for indigenous manufacture. C.C., however was exporting mercuric chloride as there was a strong demand for this chemical in the UK. The Government of India imposed a sudden ban on the export of mercury and mercury salts due to outbreak of the Korean war in early fifties.

C.C. Shroff, in a stroke of out-of-the-box thinking, decided to set up a plant where his market was. What was needed? He had reduced complexity to simple steps… the most crucial piece of equipment was a small glass reactor; this was the heart of their 'plant'. So, the reactor was carried to the UK in a suitcase!

How was all this possible? It sounds so simple! And it was. Yet, the background setting to this dramatic act involved C.C.'s genius, his analytical mind, legendary powers of observation and voracious hunger for knowledge. It also involved the skills of an unlettered tribal boy, Manchhu Soma Warli. His native intelligence was spotted by Kaka, Kantisen Shroff. Equipped with his five senses, Manchhu explored materials and processes in a laboratory. He could not make sense of the alphabet, but he 'read' the colours, the smells and sounds of a chemical process.

Mercuric chloride is obtained by the action of chlorine on mercury. If the process is not right in its details, the resulting product would also contain mercurous chloride, an impurity. What C.C. did was to replace the opaque **silica** reactor with a glass reactor. This made the process **visible**, providing greater control through fine observation. Manchhu and other Warli workers watched carefully. They had a graphic, native way of describing the impurities when they started; immediate corrections were made.

The team of 'alchemists' at Excel turned 'mercury to gold'. C.C. deputed nephews Rajju & Kishor, along with Manchhu Soma Warli, to run the plant. It was operated for three years in the UK. They were not cowed down by price wars orchestrated by the local UK suppliers. They matched price to price with better quality, and ultimately won the respect of the UK manufacturers, receiving a handsome royalty for 10 years thereafter, for sharing their ingenious low-cost technology. Here was an example of export of Indian talent and technology to a sophisticated market! That too, when other Indian companies were importing technology!



C.C. packed his plant in his suitcase when he took his glass reactor in his travel bag, and flew off to the UK to set up his mercury salts unit.

Where Eagles Dare

Celphos and Constructive Defiance: Innovation is an Attitude

"My father, C.C., was not one to take challenges lying down," says Ashwin Shroff, Chairman of Excel Industries. He talks about the story of Celphos, an Aluminium Phosphide-based fumigant.

"The green revolution in the early sixties led to an increase in food production that was much needed to make the country self-sufficient in food grains. But India was losing in spite of winning. The grain in our granaries often rotted. **It had to be protected from pests."**

The Government of India knew of Excel's expertise in the agro-chemical space. In 1967, it invited Excel to New Delhi to participate in a high-level meet. The invitees included government officials, leading scientists from India, and a representative of a German firm, the world's only manufacturer of a highly effective fumigant to protect food grains.

"We need to make this product in India. That is the answer to our problems," a senior GoI officer floated the idea at the meet. The German representative scoffed. "You Indians can't make it," he sneered arrogantly. "Forget manufacturing it, you will run for life from its hazardous reaction."

C.C. did not respond to his contemptuous retort belittling Indian manufacturing capability. Although he did not dwell on the scorn, the derisive laughter rang in his ears. His resolve was a constructive defiance. "You name it, we will make it!"

It was a pledge to his motherland.

C.C. knew success comes to those who dare to act. On his way back to Mumbai, he was already thinking about how he could make the product India needed to save her grain. Making Aluminium Phosphide with all its attendant hazards was challenging enough. Adding to that was the difficulty of converting it into tablets for ease of administering the desired dose. Celphos (Aluminium Phosphide) tablets were no ordinary pharma tablets! The technology involved in making them needed to combine several complicated criteria to ensure their manufacture, packaging, and safe and effective use at the consumer end! Within three months, he developed a small sample and sent it to the government for trial. The product was as effective as the expensive German product. He had succeeded.

"The grain in our granaries often rotted and had to be protected from pests. Making Aluminium Phosphide indigenously was an example of constructive defiance in the face of all odds".

Excel became the second in the world to master this hazardous process. The Goverment of India (GoI) placed orders for the product. Excel supplied the product to Food Corporation of India at half the price of the German make, Rs. 49 for a product that India would have had to buy at Rs. 90. For C.C., profits were secondary. "I am making the product for my own country. Why should I try to take advantage of the situation? I am earning adequate profits," he had told the surprised GoI officials. It was all about the **why**. The grains were needed by a hungry India; they could not be allowed to decay. And the larger purpose was to build a stronger, self-reliant India. It was also about the simple joy of achievement, the satisfaction of a job well done.

"The intention behind the invention was always significant," management consultant Dr N.H. Attreya had reflected early in Mumbai this year when he and Kaka (Kantisen), both nonagenarians, relived those days.

Celphos was introduced by Excel in 1967 and completes 50 years in 2017. Excel was the second company in the world to manufacture this product.

"The last laugh was ours," Ashwin Shroff says with an ironical laugh. "We have come full circle. The same company that laughed at us has started purchasing Aluminium Phosphide from Excel!"

But that was not the end of the Celphos saga.

"Three generations have worked on Celphos." Dipesh Shroff, the youngest of the Gen-II Shroff cousins, takes us through acts two and three of the Celphos story. "Pappa, Kaka and Kishorbhai (Devubha's son and an early Excelite) made Celphos from red Phosphorus. Our early plant served the need, but there was space for improvement. It was time to look at making Celphos from yellow Phosphorus. If we used yellow Phosphorus instead of red, the productivity of the plant would improve and expenses on process energy would be curtailed. But there was one snag here. Red Phosphorus is stable, but expensive. Yellow Phosphorus is inexpensive in comparison, but it is volatile. It bursts into flames when you take it out of water.

"In 1984, the year my son Chaitanya, 'Chikoo', was born, I made the first *dhadaka*, a small explosion, to put it mildly! I lived at the plant and ate and breathed yellow Phosphorus till we cracked the process. Preeti, my wife, was alone at home with our newly born son. She was worried. Mummy (Snehlataben, C.C.'s wife) told her, 'I know all these Shroffs. They will not come home till they have achieved what they set out to do. Come and stay with me at the (Amboli) factory. The upstairs bedroom is empty. But don't expect Dipesh to come!'"

Hrishit, Ashwin Shroff's younger son, takes over as the *sutradhar* (narrator) of Act III. Hrishit describes the years after 2002, when the next round of process improvement took place: "We were like a bomb squad, dressed to protect ourselves. A barricade separated the process area from the rest of the plant. When both the aluminium and melted yellow Phosphorus were mixed and the reaction was triggered in the closed chamber, temperatures zoomed from 35 degree Celsius to 1,500 degree Celsius in five minutes. Boom! Boom! It was quite a sight!"

Chaitanya played his role in the shifting of the Celphos plant from Amboli to Gajod in 2002. Hrishit was involved in process improvement of Celphos at Gajod in 2006. "How did you manage all this without a grounding in chemistry?" we ask Hrishit, the Chartered Accountant, whose mentor, Dipeshbhai, was a civil engineer.

"By asking questions," Dipesh and Hrishit reply in unison. "We grilled the chemical engineers, prodding them to explain the technology in the simplest words but in the minutest detail. We did not take anything for granted. Our advantage was the beginner's gumption to ask the most audacious questions, and make the most uncanny connections. We have been conferred honorary degrees in chemical engineering by the technical staff at the plant!" Dipeshbhai chuckles.

C.C.'s never-say-die attitude, the constructive defiance in the face of odds, is seen again and again in all the Shroffs. They know you have to dream the impossible and think out of the box.

Hrishit recounts another example: "To manufacture granular Glyphosate, we developed a technology using a domestic '*ganthia*'-making machine that cost Rs. 20,000, instead of investing in a German machine that would have cost us many crore rupees. '*Ganthias* are a savoury delight, and for us, the machine was a *savings* delight. With it, we dock in a turnover of 75 crore!"

"Creativity and innovation don't end in the plant. Prakashbhai, an electrical engineer, found some amazing and innovative applications of Glyphosate in the field," Dipeshbhai, like his cousins, is always generous in crediting his team for their work.

Hrishit chimes in with a charming smile: "Innovation is an attitude, a hands-on interaction with products and processes, with an open mind."

The Blueprint that Became a Footprint

The Mammoth Phosphorus Plant at Bhavnagar Rises

The vociferous voices, the animated arguments, the preposterous suggestions, the loud thumping and vigorous backslapping were followed by abrupt periods of hushed introspection. Suddenly, everyone was staring at the blueprints spread before them. Picking up their pencil, they were back at the drawing board, tracing and retracing… This was their routine for close to six months.

They were, in fact, Excel's chemical 'detectives', whose aim was to put up a Phosphorus plant. Their dynamism seemed untidy and chaotic on the surface, but there was a brainstorming logic to it, and their grit and determination to solve the 'puzzle' was extraordinary. They were investigating their only 'clues': the blueprints in front of them and the information 'dossier' that came with it. For them, this material was the 'holy scripture'.

It was an investigation that was their biggest challenge to date… And they were doing this without their master detective, C.C. Shroff.

Above and far above: The construction of the Phosphorus plant at Bhavnagar.
Low tech solutions for high tech problems. Khalasis and donkeys to the rescue in Bhavnagar.

If They Can, We Can

This story goes back to the years when India was an emerging economy, striving to be self- reliant. Govindji Shroff, Bhai to Excelites and family, who had just taken charge of Excel after C.C.'s sudden demise, realised that Excel's biggest challenge was to be self-sufficient in making Phosphorus, a critical raw material, in-house, especially since a local competitor had obtained a licence to put up a plant.

The opportunity came in the form of a letter of intent granted to Excel to put up a plant.

Their mission? To construct an indigenous manufacturing facility for the production of Phosphorus, an expertise that was not available in India. Yellow Phosphorus, a major raw material for Excel's production line, had to be imported. It was an expensive input and also a strain on the nation's scarce foreign-exchange reserves. Excel did not want to purchase the technology from the international market. It was of course a matter of price, but more than that, it was a matter of national pride.

The inspiration, the constructive defiance that compelled the team to defy the odds, came from a legacy inherited from Pappa, C.C. Shroff, the founder. His belief—"If they can, we can…"—had penetrated down to the last Excel employee. It gave momentum to a remarkable track record of indigenous process breakthroughs at Excel. Teams of dedicated staff worked above and beyond the call of duty. Jitubhai Shah, an old hand at Excel and their R&D Chief at one point in our discussions had told us, "We worked late all days. The time to come was fixed, not the time to leave."

One incident that shows how this energy touched even the 'temporary' construction labour. That year, unprecedented and continuous downpours had brought almost all work to a standstill. The site was under water. Without orders or instruction, the *khalasi* women came to the rescue. They dug up channels to drain the water and get civil construction going.

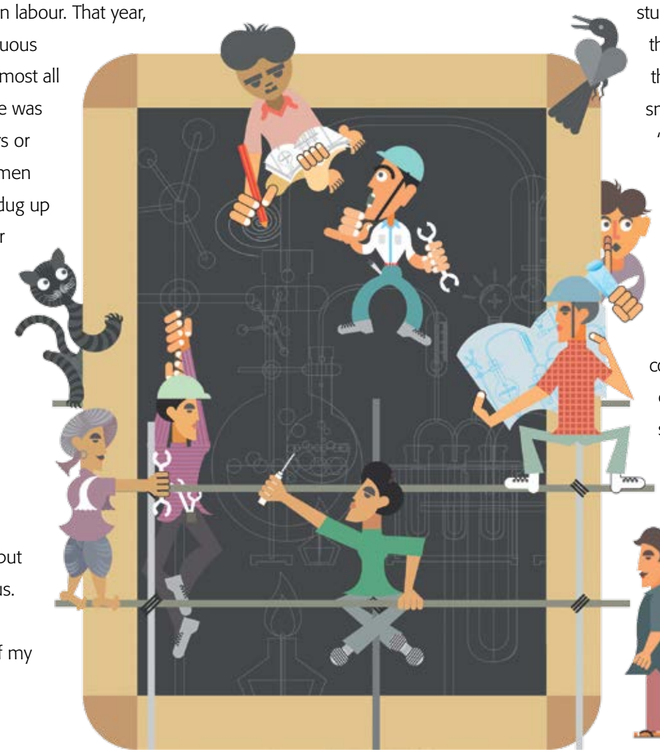
C.A. Mehta, an ex-Excelite, was a member of the plant establishment team. Today, at 83 years, his eyes still sparkle when he relives the "Phosphorus days".

"Pappa was no more, but his spirit was always with us. He often said, 'Either I will find a way, or make one of my own.' We recalled and put into practice everything Pappa had demonstrated to us through his work," C.A. Mehta reminisces.

Kaka, in a candid conversation with Dr Attreya, admits, "I was all jitters. We were doing the first big thing after Pappa had left us, and it was way beyond what we had done before. I missed him and was often lonely."

Armed with C.C.'s legacy of courage and conviction, Excel embarked on this mission through a common-sense wisdom. They gathered all the knowledge that was available in the public domain. Shashubhai Shroff and M.D. Vaishnav attended a conference organised by a government R&D institution, Tennessee Valley Authority, USA. For a princely sum of $100, he purchased documents and blueprints published by the institute. Importantly, they won their goodwill. They promised to provide right answers to questions, albeit without divulging confidential technical knowhow.

Here now, spread in front of the team, were the precious blueprints and the related published material. The entire team studied them, asked questions, threw up ideas, discussed them threadbare and undertook small trials fearlessly.



Excel's chemical detectives at work. Teams of dedicated staff worked above and beyond the call of duty to develop an indigenous manufacturing facility for the production of Phosphorus, an expertise that was not available in India.

"Tracing and retracing the blueprint helped us understand the design of the entire plant, to the last nut and bolt. A mistake was a stepping stone. A pilot plant was made in Amboli. When we commenced construction, we dismantled the entire pilot and shifted it to Bhavnagar, the new site that Bhai had selected for this project. The Bhavnagar plant was a result of several bold decisions.

"Setting up a plant outside Mumbai was a first for Excel. Govindjibhai negotiated with the then Chairman of the Gujarat Electricity Board to build the necessary infrastructure to supply electric power to this remote site. Excel contributed partially to the costs."

Ashwinbhai adds to C.A. Mehta's memories. "Bhai was the risk taker. He raised the money and resources in record time. Kaka was the 'technical leader'. He was a hungry scavenger, picking up all knowledge and expertise he could lay his hands on.

Tata, DCM, Calico, ACC, local industrialists, small-scale manufacturers, skilled local professionals such as *khalasi*s and *kharwa*s… he gathered from them all. We hired experts to guide our team. Without hesitation, Bhai and Kaka inducted them with a compensation package that was higher than the salaries they themselves were drawing."

Memories of the Design Challenges

Mehta, who had penned a spontaneous poem that captured the challenge and the immense exhilaration the team experienced, tells us: "Around them was an expanse of barren wasteland: uneven, unproductive, saline soil. The sun was punishing. The steel plates and other construction material lying in the open added to the glare, and the scorching heat climbed above 40 degrees Celsius. But we didn't grumble about being sunburnt. Kaka always counselled us to emulate Guru Dattatreya and learn from any potential source, and so, we banked on the innate wisdom and knowledge of the local artisans, *mistri*s (skilled construction sector technicians and carpenters), *kadiya*s (masons), *khalasi*s and *kharwa*s (seafarers). 'Leave it to us. It can be done.' Those words were the magic mantra of each day, demonstrating the confidence of India's traditional artisans or *kaarigar*s. I had worked on many jobs with many teams before coming to Excel, but the enthusiasm of this team was unparalleled."

There were many challenges. Raising the parabolic roof that weighed105 tonnes was a daunting task. When water is poured into a concrete mix, it has a tendency to rise to high temperatures. Hence, it develops cracks when it cools down. "Cold water was a solution. If we poured cold water into the mix, rather than water at ambient temperature, even when the temperature rose from the reaction, it would not be detrimental to our process. It would prevent cracks from forming."

Oh, but cold water would be needed in hundreds of gallons. C.A. Mehta described how, on three appointed days, all the ice routes from the Bhavnagar ice factories unloaded at Excel's Bhavnagar site to cool the water that fed the concrete mix.

Making the furnace generally required expensive and specialised expertise and infrastructure. The team reached a consensus that they would line the sides of the furnace with tamping blocks—'bricks' glued together—rather than attempting to construct a large monolithic lining. C.A. Mehta proudly tells us, "We did not leave this

Members of the Bhavangar team pose for a group photo to celebrate the success of their hard work.

critical task to hired help; we made each tamping block ourselves from scratch. We carried the pails of tamping liquid; we beat down the blocks." Hand tamping is a laborious process and must be done thoroughly.

Once a blast furnace is ignited, it will continuously run for a long span with only short stops to perform planned maintenance. The graphite electrode that sustains the high levels of heat in the furnace is fitted in the centre of the roof, and needs to be replaced periodically. In the Bhavnagar plant, it was situated at a dizzying height of 78 feet. The walkway to reach this was a frighteningly narrow 6-inch-wide parapet.

The task required a high level of precision. The electrode had to be assembled at the perfect torque. Narayanabhai, the leader, and his team of *khalasi*s, were roped in to accomplish this critical task. The skills of this community of dock hands are legendary. The *khalasi*s mainly relied on physical strength, skill and teamwork. Their deceptively simple tools, such as '*davar*s' and '*kazha*s' worked wonders.

During a visit to the US, Kaka had gathered insights regarding the technical nitty-gritties pertaining to the assembly of electrodes. He explained the process to Narayanabhai through step-by-step assembly drawing. Narayanabhai had nodded his head vigorously then. But once he was poised precariously on his narrow high seat, he drew on his years of experience of working in the dockyard. Using a rudimentary rope and bamboo 'machine', he used a different method to lower the electrode. Kaka signalled furiously;

Narayanabhai was not following his instructions! Narayanabhai requested C.A. Mehta to take Kaka away while he did the job. To the rhythm of the lilt "*haisha ho haisha*", the electrode was raised from the horizontal to the proud vertical stance with deceptive ease.

A Steely First

For every tonne of Phosphorus that is produced, a voluminous nine tonnes of molten hot slag has to be safely disposed. The cooled down slag was disposed in the deep trenches of the wasteland that the furnace stood on. "Donkeys were our material movers. Economical and practical!"

The courage, conviction and teamwork paid off. The plant was started at the stroke of midnight amidst cheers of joy. The achievement was momentous considering the decision to build a plant had been taken though a competitor was looming large. A week before construction for the Excel plant was initiated, another Indian chemical company had begun operations to start a Phosphorus manufacturing facility. While the competitor's plant, built with technology purchased from a European firm, had to shut down operations because of a blast soon after it was commissioned, the Excel plant had a smooth ride. It was manufactured at a cost of Rs. 1.5 crore, less than one-fourth of the original quote of Rs. 6.5 crore.

Excel went public to set up the Phosphorus facility, again an in-house venture. Employees at all levels were encouraged to buy shares of the company. This was facilitated by easy instalment loans that the company offered. In every sense, the plant belonged to the proud Excelites whose Herculean efforts had made C.C.'s footprint a blueprint for achieving what seemed impossible.

The design of the equipment involved the utmost care in view of the hazardous nature of the product. The equipment incorporated many safety features. The entire unit was fabricated and erected in a record time of just 18 months, thanks to the unremitting zeal of Excel engineers. Incidentally, such records were frequently to be broken in subsequent years.

Interestingly, the Bhavnagar plant's first employees were two cured leprosy patients from the leprosy home opposite the plant site.

"I still smile when I think of all the good omens and joyous moments," Mehta says. "Bhavnagar had unprecedented rain that year. The Gaurishankar *talab* (lake), locally called Bor *talab*, was filled to the brim for the first time in 15 years. The people of Bhavnagar saw it as a good omen. There was a large trench on the site. It, too, filled up and became our swimming pool. With Kaka, we all jumped into the pool to refresh ourselves after a hard day's work. It took some time to figure out, but once that was done, it was quite simple, really!"

The furnace lining and the large parabolic roof
were the first of their kind
Their parallel in India we could not find
And such other items can name a few
Which could be made here, just no one knew
The 66KV was brought to the site
With a number of towers of equal might
Though off we went from the targeted date
But clean, we wanted, to keep our slate.
The usual share of troubles we had
But the overall progress was not so bad
Then just at the time when the night was dark
At twelve midnight we struck the arc.
The test and trials had also begun
The problems which came were mixed with fun
At each step forward to reach our goal
We asked for the blessings of the departed soul
How all of us wish, he be present today
To see how we proved what he used to say
That we in India have plenty of brain
Unwanted, we incur, the exchange drain
So we tried our best, to justify the thought
Which he practiced in life, and to us he taught
It's the first of its kind, and the results are due
When we produce the goods, it's a dream come true.

Excerpted from C.A. Mehta's Poem

We Need Your Confidence, Not Your Guarantee

Developing Manufacturers

Often, people behave like the seed that is afraid to send its roots into the ground below because it does not know what it would encounter in the dark. We bet on *playing safe.*

But the pioneers of Excel. They are players who have always known how to roll the dice. They have had confidence in themselves, in their teammates, and their suppliers. And confidence emerges from the ability to dare, the willingness to take risks.

The electric power requirement for the Bhavnagar Phosphorus plant was 5MVA. This was equivalent to the power required by the whole of Bhavnagar city. The plant required a furnace transformer that could handle sudden and significant current variations. One of the largest manufacturer, Siemens, was approached. Siemens said they had never made such a transformer before. "We could try, but we can't give you a guarantee," was their team's hesitant response.

"Do you have the confidence?" Bhai and Kaka asked them.

"Yes," the Siemens engineers replied. "We have the confidence and the capability. But we lack experience at this scale."

"Please start," was Bhai and Kaka's immediate response. "We need your confidence, not your guarantee."

And the transformer that the Siemens team made did not fail Excel.

In a nascent industrial scenario, there were many firsts. Excel placed utmost confidence in their suppliers.

Gujarat Machinery Manufacturers (GMM) in Vidyanagar, Gujarat, manufactured 5KL glass line reactors for the first time, under Excel's orders, for the Malathion plant for Hindustan Insecticide Ltd. Again, it was Excel's calculated faith that paid off.

As the Chinese say, risk-taking is the art of choosing wisely.

Inside the Lote-Parshuram Plant, Maharashtra.

Metal Fit for a King

Serendipity Meets the Need: Palladium as the New Catalyst for Butene Diol

Like all good stories, product cycles also come to an end. In the 1990s, it was not profitable to manufacture Phosphorus at the Bhavnagar plant any longer.

"The rupee had been devalued, but we could not compete with China's prices. After research in our usual style, we decided that we had to use the plant to manufacture something else. Meanwhile, Endosulfan, another big product of Excel, was coming under price pressure, and we needed to reduce its cost. Butene Diol, one of its key raw material, was imported, and its price was high. So we decided to see if we could make it in-house. Manufacturing Butene Diol (BD), thus became a life and death issue," recalled Kaka, Kantisen Shroff.

Bala, President of Excel Industries Ltd, was fairly new when work on Butene Diol commenced. He had joined Excel three years before. "We had to start with the raw materials. BD needs hydrogen gas, acetylene gas and two catalytic reactions," says Bala. "We had to tame them. Acetylene and hydrogen are both explosive and tricky to handle. Characteristically, Bhai had said 'we will find a safe process.'

"I was thrilled that Kaka had selected me as a member of the team. As part of our 'Mission Impossible made Possible', I was asked

Taming the chemicals in the manufacture of Butene Diol.

Excel's Man of Prodigious Experience

The Veteran and His Simple Solutions Implemented Simply

Kiritibhai Shah

His many certificates spill out of his bag as he explains the chemical processes he has been involved with from the day he joined Excel Industries Ltd in 1957, when he was barely 20 years old. His modesty hides his extensive and prodigious experience, which has benefitted many who came after him, to whom he could rattle off his simple solutions.

He was involved in helping with their first major product, oxalic acid, in the Jogeshwari plant, after which he was part of the team in Amboli, then Kutch; practically every plant site that Excel put up.

He remembers the processes vividly, along with the family members involved in the plant's activities. "Renuben was very active with her father, C.C., for about two years in Jogeshwari, and Shashubhai was a wonderful administrator, motivating us all, looking after the practical aspects of the workers' comforts, arranging for safety, housing, and other needs. Work was exciting, and we figured out practical solutions for processes, so that our days were filled with creative thinking."

"Simple solutions, implemented simply," adds Ashwinbhai.

But there is one document that is missing from his impressive collection. He has no letter that shows his retirement from Excel. "Perhaps I will retire next year, *vichaar chhe…*" he says.

He may be able to leave, but will Excel let him go?

to master acetylene, C_2H_2. This colourless gas is widely used as a fuel and a chemical building block. It is unstable in its pure form and is volatile; it's like a detonator! Kaka called it the 'black panther."

Pure acetylene is odourless, but commercial grades usually have a marked odour due to impurities. "Smell was a cue for us. We could tell the quality from the odour," Kirtibhai adds. He never missed the small details.

Bala was asked by Kaka to study acetylene and present his findings to the team systematically, like in a seminar. "I visited other factories where it was manufactured or used, met with experts, consulted books and reports and prepared a 15-page paper on the safe production of acetylene. Though the seminar never happened, I learnt because I had to teach others," recounts Bala.

"We purchased the plant from a supplier in Lucknow. Gosalia and Chudasama were with me. I still remember the name of the street, 'Ganesh Chandra Avenue'."

Bala shares some of the master strokes of the process. "We reduced the possibility of hazards by using acetylene directly without any storage. We adopted the same safe procedure for hydrogen, H_2. Hydrogen is a very light gas. It is generally stored in cylinders under high pressure. We did not compress the gas, and again, we bypassed storage. Our system was like a boiler, when you need the steam, you start the boiler. Similarly, when you need acetylene and hydrogen you generate them and use them right away. The two procedures were major breakthroughs in the production of BD."

Kirtibhai was the magician for the next phase.

"Conventionally, BD was manufactured at high pressure, a process fraught with dangers. Could we develop a safer cost-effective process? Could we produce BD at low or atmospheric pressure? As far as we knew, it had not been done at a manufacturing scale. Our research showed that this had been done at lab scales, but not at plant scale. The crux was the catalyst.

"The heavens opened up for us. A PhD student came to visit Kaka for a brief exchange, and shared a copy of his recently completed thesis."

Kaka vividly recalls those heady eureka moments.

"Out of a strongly cultivated habit that has always stood me in good stead, I always 'scan' every bit of knowledge that comes my way, generally safekeeping it for later reference. I scanned the index, checking the contents of the thesis. My training in rapid reading stood by me. I got a hint, a direction for our problem!"

The spotlight was turned on palladium, a platinum group metal: a product more valuable than gold, a metal known for its purity, rarity and versatility. It then cost Rs. 2,500 per gram. In the 18th century, platinum's rarity had made King Louis XV of France declare it the only metal fit for a king!

The catalyst, part of the student's PhD thesis, untried on industrial scale, gave the hope of cutting out the high pressures, the hazards and the high cost employed in the traditional process of producing BD. Excel pinned its confidence on this novel approach, and lo and behold, the confidence paid off. Excel's own BD was produced with much lower costs and hazards, saving substantial foreign exchange. And the icing on the cake… one more award from ICMA!

Serendipity happens when you want something and are prepared: the revelation of the new process for Butene Diol in an IIT student's thesis.

One is to Seven: The Challenges of Scale

Developing the Perfect Recipe for Successful Project Management

In a poem that is an adaptation, an Indian legend, writer and poet Vikram Seth tells the tale of a certain kind-hearted insect, who lives with his family in a king's quilt. The hospitable insect makes a grave judgement error. He allows a clever mosquito to become his guest just for one night. Trouble begins when the impatient mosquito ends up biting the king despite strict instructions from the insect…

Mosquitos are responsible for more human deaths than all the wars in our history, spreading panic and misery for thousands of years. India has been making concerted efforts to tackle this deadly disease through its Malaria Eradication Programme that was launched in 1953 and intensified in 1977. It was around this time that Excel took on a challenge that far exceeded its experience, to support India in the mission to fight the "malintentions" of this deadly foe, by erecting a giant facility for the manufacture of Malathion.

Malathion is a Phosphorus-based pesticide used in public-health mosquito control programmes. Excel was a major producer of Phosphorus Pentasulphide, a product that was the starting point for most Phosphorus-based pesticides. Excel experimented with the development of various products, one of which was Malathion, to gainfully utilise this core manufacturing strength. Excel erected a small pilot plant to produce 1 MT per day. A key component in the manufacture of Malathion was the glass-lined reactor, which till then was being imported. But luck was on Excel's side: Gujarat Machinery Manufacturers, GMM, with a collaboration from Pfaudler, had started operations in Vallabh Vidyanagar to manufacture the needed reactor. Excel collaborated with them to build it.

The quantities required for the government's Malaria Eradication Programme were large. Considering the reputation of Excel's product, GoI approached Excel, through Hindustan Insecticides Limited, HIL, to erect a 7-tonne-per-day plant at Rasayani, 70 km from Mumbai. "Though we had developed the technology in-house, the successful transition of technology from R&D and pilot scale to the macro level within a commercial production environment is certainly not a trivial undertaking," C.A. Mehta explains to us.

"You can't take a simple linear-leap to scale up a process technology that works in a beaker by simply dropping it into a 500-gallon tank! It was our first turnkey job of such a magnitude. The cost for the entire project was estimated at Rs. 3 crore; the project was to be completed in 36 months. Accepting the offer meant we had to develop commercially viable design parameters for everything from construction of the plant, supply of equipment, to plant erection and commissioning. And…"— he pauses as we absorb this piece of information—"before we clinched the deal, we had to prove our engineering and process abilities to established stalwarts such as FEDO (FACT Engineering and Design Organisation), who were consultants to our client HIL.

"There were many daunting firsts: manufacturing a glass-lined reactor of the desired capacity that was larger than what GMM, the sole manufacturer, had ever manufactured; constructing a form-finish RCC building (where no plastering is allowed after the casting of columns, beams and slabs) for which we had no prior experience; using mechanical seals for sealing the reactor in place of the gland packings we were accustomed to; and above all, providing a guarantee for the raw material consumption per tonne of product, output per day, quality and quantity of effluent discharged by the plant, its safe disposal and, of course, the project time. Any shortfall or faulty estimation would entail a heavy financial loss.

"Like all our projects, our first step was to construct a guest house on site and start a kitchen to take care of the needs of our teams, who attended to the work in three shifts round the clock.

"They say God helps those that help themselves. Providence provided us an opportunity for a trial run while we were executing this project. We jumped at the offer of a joint venture with Punjab State Industrial Corporation plant for the production of Malathion. This plant was a forerunner to the HIL plant, as the scale was smaller, providing us the opportunity to try out and test various things that we had guaranteed to HIL. This increased our confidence."

About 25 workers from Punjab were brought in to be trained for the plant that would be put up there. Visualising the need for much larger quantities of Malathion, several companies approached Excel with similar requests to erect and commission Malathion plants for them. Excel tried to discourage them, as the realisation of the demand rested entirely on the continuation and expansion of the government programme. However, companies, including Bihar State Industrial Development Corporation, Khatau Junker and Ficom Organics, insisted on going ahead with the project.

C.A. Mehta shares a telling anecdote of Excel's unconventional working style that has always inspired those that have been witness to it. "When we were in the final stages of the HIL project, a group of trainees from Ficom Organics visited the plant at Rasayani to observe how we worked. They were overwhelmed by our methods and sought our permission to stay overnight. We were reluctant as we could not offer them a comfortable night stay. But they said, 'Sir, we want to stay back to see how you work and for that we will not get any time to sleep.'

"And so, like us, they sacrificed their sleep to the altar of commitment."

Scaling up is an entrepreneur's dream and nightmare. Managing the vision to build up, out and big. Building a scaled-up Malathion plant was a first for Excel.

When there is a Challenge, There is a Way

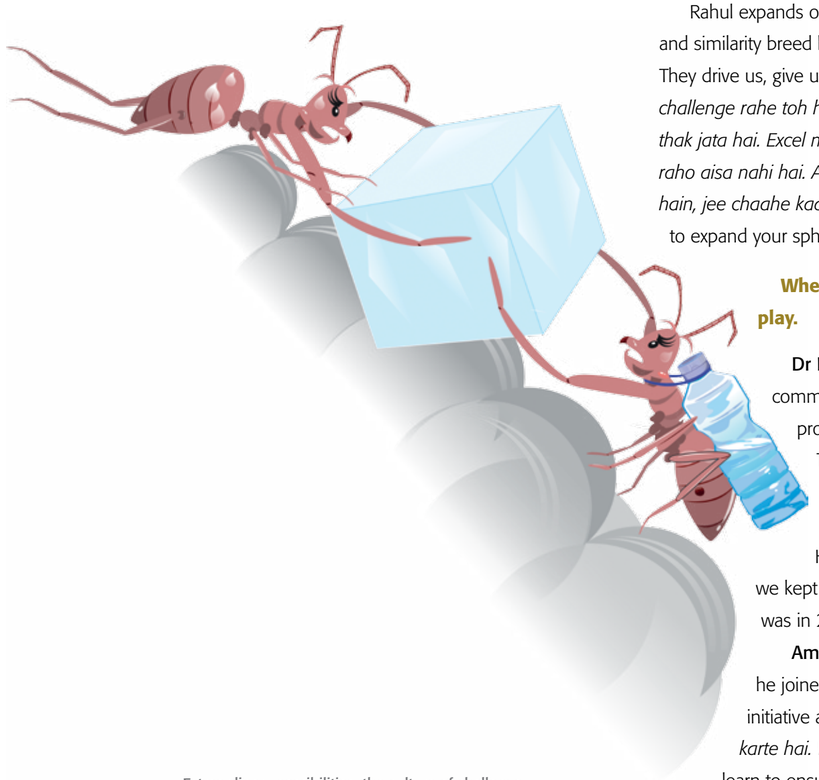
The Satisfaction of the Job: Voices from Excel's Roha and Lote Plants

"16 hours *kaam karke bhi* fresh *rehte hain*."

"If we worked such long hours in any other company, we would complain of fatigue."

For many of us, the idea of having a job that is truly satisfying, the kind where work doesn't feel like work anymore, is a fantasy. Sure, artists and professional athletes may have found a way of doing what they love and getting paid for it. But not many actually dream of working to scale up processes from grams to tonnes, or improve efficiency of processes of the same or similar products year after year, for decades…

Career dreams are one thing; practical reality is often another.



Extraordinary possibilities: the culture of challenge.

For the technical staff at Excel's Roha and Lote plants, they seem to coincide. They experience that rare phenomenon: job satisfaction.

Here are excerpts from round table discussions with the technical staff at Lote and Roha, which give us an insight into what keeps the Excel technical team motivated.

Says **Rahul Redij**, Utility Engineer:

"*Yeh* routinised *job nahin hai.* Daily grind *ki* drudgery *nahin hai. Nayapan milta rehta hai, issi karan kaam achha lagta hai.* (Our work does not stretch as one unending routine. It feels good that there is something new to do every time, a different problem to tackle and something more to learn.)"

Rahul expands on his beliefs about life and work, "Dullness and similarity breed boredom… Work or life, we need challenges. They drive us, give us a sense of purpose... *Life mein, kaam mein challenge rahe toh hi achha hai, aadmi dullness aur similarity se thak jata hai. Excel mein jitna kaam ka tukda diya utne mein hee raho aisa nahi hai. Apne area mein jitna jee chaahe khel sakte hain, jee chaahe kaam kar sakte hain*." Excel gives you the freedom to expand your sphere of activity.

When you enjoy what you do, work becomes play.

Dr Patil, R&D, illustrates the extent of Excel's commitment with an anecdote: "We had to deliver a product for which sodium was the raw material. The humidity in Roha made it impossible to fulfil our obligation. Letting our client down was out of question. We hired an idle plant in Hyderabad, where the weather was drier. And we kept our promise… time, quality and price… that was in 2005."

Amol Kerkare, who had worked elsewhere before he joined Excel, highlights what enables people to take initiative at Excel. "*Yahan* mistake *karo toh* depress *nahi karte hai.* Mistake *se baahar aana sikhaate hain*. We learn to ensure that we don't make that mistake again."

Rising to face challenges! Shop floor, control room and labs at Roha, Lote and Mumbai.

Not being crucified, but counselled for your mistakes, creates a positive environment, an atmosphere that is conducive to ownership, involvement and creative risk-taking at work.

Vilas Mahale adds that the team spirit is another factor that leads to the easy adjustment and growth of youngsters.

"When I was a fresh graduate, like countless others, I did not have practical knowledge. I grew because of the support of my peers and seniors. All knowledge is freely shared. There are no technical secrets."

Sanjay Ajri reflects on his growth and progress and also that of his colleagues. "I was sent for a training programme even as an apprentice. In 10 years, I have benefitted from 20–25 training opportunities. *Main* upgrade *hota raha.* At Excel, training is given at all levels: to beginners, old-timers and even contract staff.

"My proudest moment was the remote operation I developed for the P2S5 process. Though I am now at Lote, the workers at Roha remember me for this development. My process change spared them from handling the Phosphorus Pentasulphide reactor up close. Now they do not have to stand close to danger. This little process modification gave me tremendous satisfaction. It boosted my confidence for further initiative and experimentation.

"The company never hands over projects to 'outsiders' as a turnkey contract. If that was the practice, then the only knowledge consultants would transfer to us would be the 'ABCD' of maintenance. We would all be reduced to robots working according to another's instructions. At Excel, we do call consultants when needed. The difference is that we partner with them to set up and establish things. It gives us a chance to learn and grow.

"Project *khud* design *karte hain, khud karte hain,* mistake *karte hain, sikhte hain,* continuous improvement *karte hain.* We thrive on design challenges. It's hard work to finetune solutions, but we enjoy that. *Doke dukhi aahe*, *magazmari hai, toh hi maaja hai*! Problems, 'headaches', the brain teasers… are invigorating. And there is nothing like that euphoric sense of satisfaction."

Vishwanath Vaidya, who now leads the new pharma division at Lote, echoes the same sentiments. "We learnt a lot when we started our pharma set-up because we were directly involved in things. In a short time, we qualified for the 'Good Manufacturing Practice' certificate from FDA Maharashtra. Today, reputed companies are our clients for pharma intermediates."

R&D facilities come first in every plant.

Sanjay adds another significant observation: "We get a lot of cues and hints from our operators who work closest to the problem. Our 'interaction culture' allows this to happen with ease. Without the operator's inputs, success *kam ho jata hai*. The solution is likely to be flawed."

From the ground up, the R&D and quality assurance staff share their moments of exhilaration: the thrill of cracking problems that had stumped them. They have added to the safety of processes, saved raw material, recovered important resources from processes, economised on energy consumption, minimised waste water and resource consumption, scaled up capacities and improved product quality and parameters.

Says **Suryakant Palekar**, who helped develop the PCL3 distillation process, "Distillation *mein apna* mastery *hai*, I can achieve 99.9 per cent."

"Data analysis and close monitoring are keys to consistent process improvements," adds **Manohar Gharat**, Roha, who is responsible for production. "*Cost kum karna tikne ke liye bahut* important *hai.* Economy of processes is critical. Tough competitors like China can just sweep us away, otherwise."

Mr Degwekar, operations-in-charge, Roha and Lote plants, shares the story of the 'stinky Sulphur'. "*The stink would have made our ship sink*," he says in jest. "The problem—a pile-up of 1,400 tonnes of Sulphur we could not use or dispose—was turned into a raw material, saving us Rs. 2 crore a year."

Degwekar shares another money-saver success story. "We recovered raw material from an effluent: potassium bromide. This cut down the expense incurred on effluent treatment and saved about Rs. 80 per kg. of the product, which is 10 per cent of its selling price!"

Dr Patil chimes in: "I have grown because of Excel's faith in me." Among his many achievements is the commercialisation of Propargyl Chloride. "We were hoping for a yield of 68 per cent; we achieved 90 per cent. The product was transferred to Transpek Industry. Today, they are making the product in tonnes and exporting it in ISO containers."

Subhash Bagal says, "Our strength is our teamwork. Sometimes, we have to work for two to three years on process improvement, as we did for DETC, to reduce the quantity of waste water generated."

Some voices also express the need to hire those with greater experience, so that improvements can be jump-started, saving time, money and adding enthusiasm.

"We had a tough time achieving the desired quality and product consistency for PEEB and RELD, a specialised process catalyst for the polypropylene process. Even our client gave up on us. We were able to do it after five to six years of R&D. Mr Potdar, one of our directors, and Ashwinbhai said, 'Don't leave this product, *we must never give up*.' Today, 13 years down the line, we have had no problem with product quality or consistency for this critical product. There has been no rejection."

Vishwanath Vaidya adds another dimension to the feeling of job satisfaction, a sense of pride in what their company stands for. It is this value dimension, the *cause beyond profit* that enables Excel to retain its employees for decades in an era where staying at a job for one or two years is the trend.

The Excel team at Lote-Parshuram plant.

"I am very proud of the ethics of the company. Excel will not play with the lives of people or with Mother Earth. A delay will do, but a compromise on EHS—environment health and safety norms—is not acceptable."

Taking a cue from this, Sanjay Ajri tells us a safety story: "I am proud of the system we developed to ensure that packing drums were drained out properly before being reused. We incorporated a process break: the system does not start till the needful is done. This process rules out chances of a dangerous overflow. *Kabhi, kabhi bahut alag sochna padta hai*, we have to think *hat-ke*, out of the box."

Parag Karambele, Vilas Mahale, Subhash Bagal, Santosh Muchandi, Dr Krishnedu Sil, K.T. Ramkrishnan, V.B. Bhusane and S.B. Mohite, the other members of the technical team at Roha, rejoice in their experiences, which resound with similar sentiments… the spur of challenge, the triumph, the pride of a feat accomplished, and a work ethos that allows this to happen.

"Degwekar Sir, Bala Sir and Ashwinbhai always 'push us up'. Degwekar Sir is our technical master here at Roha and Lote. He keeps us motivated and always on our toes. *Achha* charging *karte hai, kabhi bethne nahi dete hai*."

"When we are working on a problem, we think about it 24x7. We don't stop till we find the right solution. Degwekar Sir always tells us, 'Be alert to all that is going on around you. Listen to all discussions even if it is not your subject.' Breakthrough *kabhi bhi* click *ho sakta hai*. The eureka moment comes unannounced; it's a *chhupa rustom*."

"In 2006–07 many companies closed down around us. Staff were laid off. It was a slack time for us too. We had no product, no engaging work, but our company still gave us our salary on time. Company *ne bure* time *mein bhi hamko sambhala.*"

"Our seniors motivated us, '*Aaj* load *nahi hai, sochne ka* time *hai. Aage kya karna hai iske bare mein socho.* Think ahead, we have the luxury of time on hand.'"

Excel's technical team is engaged in tackling challenging work.

An anecdote from J.S. Gosalia, an old timer who has worked on several fronts, bears out that the culture of challenge is a part of Excel's DNA. Gosalia began his career doing experiments with Pappa, C.C. Shroff, at Amboli. "It was not money that glued me to Excel. When I joined, I was working with Excel and also giving private tuitions. I earned three times more from the tuitions I was giving as compared to my Excel salary. I lived in Ghatkopar; Amboli was in Andheri; my tuitions were in Malabar Hill. The commute was long, hence I had to drop what I was doing and leave the factory at 5.00 p.m. every evening. This went on for some time. Eventually Pappa asked me to choose one of the two, career or income."

Gosalia thought about it, consulted his father, and decided to quit tuitions and focus on the Excel job… He realised, in teaching he would always remain a teacher, but in this job, he would make a career, he would have the opportunity to engage in varied and enriching experiences.

"And I have never regretted that decision!"

We like to believe that employees leave for more money. But, in fact, most employees leave for reasons other than money. The existence of opportunities for advancement, training and a fulfilling career path is what counts.

The observation Dr N.H. Attreya, management consultant, made when Excel crossed the 50-year milestone, holds good even today: "I used to get a feeling that they are all playing a game: all of them on one side and the current challenge on the other. Can we say that work can be an opportunity for positive excitement?"

The Excel Crop Care plant at Gajod.

Tunnels, Turnings, Dead Ends

Challenges, like road bumps, are a rough ride, but Excel has always risen to the occasion.

The story of any company, just as with a novel, is filled with twists and turns. The big difference is, that from the beginning, a novelist knows the end while business houses don't. A novelist can turn back the pages of the book, rewrite portions of the text, add details. But with companies, one can't turn back the clock, make changes in the plot, or manoeuvre a positive outcome. One contends with tunnels, sometimes finding that proverbial light at the end and sometimes discovering that there's a dead end instead.

Excel has experienced many successes in its products, within its business approaches and nationalistic outlook. But it wasn't all easy. However, for daring people, nothing is impossible. That's the philosophy that C.C. lived by. His daring was engendered by a childlike curiosity that turned his factory into a playground where he experimented with hazardous chemicals and mastered them. Boldness was a quality that was emblazoned across the characters of both Govindjibhai and Kaka, a quality that triggered quick, informed and sometimes ingenious decisions whenever challenges met them at some turn of the Excel plot. Today, different kinds of challenges are being met by the Excel Group in this globalised economy, with a bold vision to contribute to the world's environmental health.

Since Excel's risk-taking ability had been established from the start, its timeline is dotted with the varied challenges it faced. Here are some of the more recent, hitherto unrecorded ones.

A plant was put up in Baroda, since it would be close to the raw material Excel required, but the government announced that the raw material needed would be supplied only to Public Sector Enterprises. A plant and no product!

Excel's star product, earning over 60 per cent of its profits, was banned suddenly, unexpectedly.

A loss-making unit was on the verge of closure.

China's entry into the world market came with unmatchable prices.

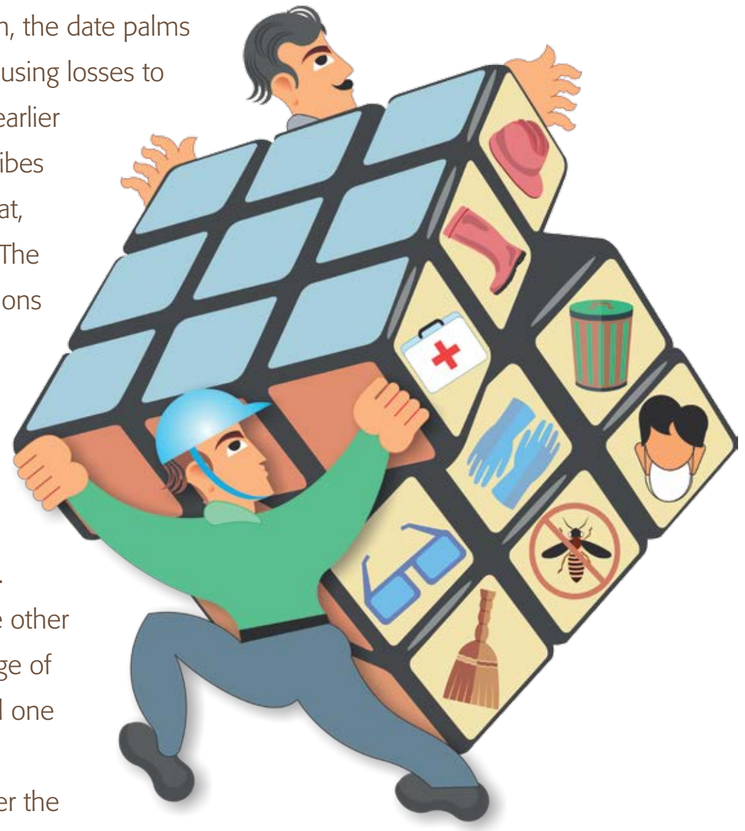
A foray into pharma led to a high initial cost, with no immediate guarantee of orders.

New generations of staff and family faced 'glass ceilings'.

A proposed alliance with an MNC fell through.

The company de-merger led to a division of products and people.

In the Shroff family's beloved Kutch, the date palms were of variable, unreliable quality, causing losses to farmers. Animal husbandry, the only earlier recourse to a livelihood for pastoral tribes was threatened. A government 'gift' sat, waiting to fulfil an unidentified need. The family felt responsible for some solutions to these situations.



Figuring out strategies: Excel was found wanting in EHS and failed the audit required by G.E. Plastics. After a year of transformations at the site, Excel asked G.E. Plastics for another audit and passed.

And if that were not enough, an impossible-sounding project was put up in the harshest, almost inhuman conditions of the desert.

The list goes on, and is formidable. However, one must come over to the other side of the tunnel. Turn to the last page of Excel's story 75 years later, today, and one sees reassuring success.

So, what remains now is to discover the stories in between and see how sometimes imaginative and innovative resolutions were found. This section leads one into the tunnels that Excel went through and how it emerged into the light.

Reversing the Failed Audit

If You Know the Why, the How Will Follow: Fulfilling the Order from G.E. Plastics

"Why do you wish to go to Lote?"

Kantisen Shroff, or Kaka, was screening applicants from the Mumbai office who had applied to work at the new site at Lote Parshuram, in the Ratnagiri district. Excel Industries was putting up a plant in the MIDC Estate there. Many of the Mumbai staff and workers were from that area, and it would be good for them to be closer to their families. Besides this, being away from a populous Mumbai meant reducing possible hazards.

There were many responses to Kaka's question, but as usual, Kaka was looking for that spark that spelt something more than a candidate looking for better prospects. At the end of the interviewing process, Kaka selected a team of 11, gave them his confidence and blessings, and sent them off for a rigorous three-month training under Shri Yashwantrao Lele, a former principal of a school for high-IQ children.

How does one title this kind of training? It encompassed all kinds of life skills, from cooking and housekeeping, to safety management and clerical processes. Each person must be able to run the plant and also make breakfast! In C.C.'s days, multitasking was considered necessary, especially in a new plant in a remote area, to be manned later by locally recruited workers.

Finally, six of 'the Lote Eleven' were sent back to Mumbai to learn the technical production process, since the same was to be brought to Lote. When they returned, they trained 16 people from the local area. With resources and training in place, the Lote plant was set up on 14 April 1983.

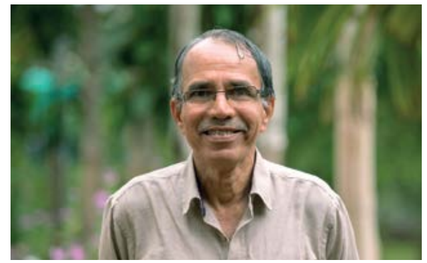
"Whenever Kaka visited the site, he stayed with us in our hut, sleeping on a charpoy as we did," say Dattaram Mande and Padmakar Jawdekar. "We chatted with the local people, attended their functions, attended weddings and generally established family relations with them. At the time, the plant had no boundary wall or fencing except trees. 'Spend as you earn,' was Kaka's approach."

There was also a certain humanistic prudence in Kaka's intention not to put up a fence immediately. A physical boundary creates a mental boundary, a form of resistance and distance, which was completely counter to Excel's way of cultivating good relations between the people of the plant and the locals. Early boundaries might unintentionally turn the Excel plant into an 'island'.

"People living in Chalke Wadi behind the plant took shortcuts through the plant. This was dangerous, so later, when mutual trust was established, they were gently warned against the hazards of chemical plants, and they changed their route."

It was a relatively new plant in a rural locale with a modestly qualified staff when a new opportunity arose, which required **ramping up its capabilities to meet international standards.**

In 1993, G.E. Plastics, a large polycarbonate producer, needed supply of THPE, an intermediate. They gave the job to National



"Krish Narayan (left) was a strict taskmaster, who 'pulled our ears'. He tolerated no shortcuts to compliances," reminisce senior members Prakash Gagan (right, above) and Padmakar Jawdekar (right, below) of the 'Lote Eleven'.




"The discipline of systems became an integral part of our lives, at the plant and in our homes. Is this a factory in a garden or a garden in a factory?" Lote today.

Chemical Laboratory (NCL), Pune. NCL developed the product and looked for a manufacturer. They met the Excel team and saw the plant, and decided that Excel was a good partner to manufacture this. Excel constructed a pilot plant and supplied the product which was okayed by G.E. However, in those days, G.E. was strict in terms of environmental aspects of manufacturing, and, as a multinational company, their lawyers had to make sure their suppliers had environmentally acceptable compliance standards. Excel not only had to develop the product but also had to demonstrate its compliance with the environment, health and safety (EHS) standards of the client.

"At the time, we were functioning well, and our products were good. We didn't know that the EHS standards would be so rigorous, as they had to meet international standards," Mr Potdar reflects.

The product could certainly be made. But when the plant audit was conducted, Excel was found wanting in EHS. They failed the audit, and Excel did not receive an order for the product. Expectations were dashed, and disappointment spread through the staff.

"It was our first failure," says, Mr Potdar. But as always, Excel staff didn't let it stop there. It was important to follow Kaka's succinct but critical observation, **"If you know the 'why', the 'how' will follow."** Why did Excel fail the audit? He asked the auditor, who shared his reports. The staff studied these reports and noted where Excel deviated from the standards needed.

Again, Kaka's words came to mind: Whoever can teach you is your guru. So, Excel then asked G.E. if the same auditor could come in to help, and they agreed. This is how Dr Krish Narayan was asked to be Excel's consultant, which he accepted. Then began a year-long programme within Excel, to improve EHS and bring Excel's plant to world-class levels. Under Shri Krish Narayan's unrelenting training, the staff worked hard to change their work surroundings, by changing their ways. He came to the Lote site three days in a month, improving the required 16 elements in the systems.

Over one year, a step-by-step method was implemented. Staff at every level started thinking in terms of systems and norms, and took ownership for enhanced practices in their departments. This led to a massive change from the shop floor to the management.

The operations team complained. They had to deal with others' shoddy habits. "Our plant's 'front face' was clean, but the area at the back had a dumping section that revealed careless habits. All the waste was brought here, unsegregated. Stones, lids, siphons and equipment lay around with no order. Cylinders were scattered, with a risk of chemical seepage, since they were rolled here casually by foot. Unless everybody cooperated, this dump would remain, and any inspection might cause the plant to close down. Krish Narayan was a strict taskmaster, who 'pulled our ears'. He tolerated no shortcuts to compliances."

"Entry permits to sensitive areas were to be given after a physical examination, which we did not always do. We didn't know how to use safety belts. Some workers came in shorts and chappals. All that had to change."

Another member of the team says with a chuckle: "Once, while we were still in training, someone brought some permit papers for me to sign. I signed then and there, without looking at them, and he just blew me up! I never forgot that lesson! The list of our earlier shortcomings could fill a book."

Labelling was important, especially cylinders. Each item had its own place so that it could be found easily and quickly, even documents. Earlier, if even a spanner was missing, everyone went looking for it. Heads of departments set goals.

Krish Narayan visited departments unannounced, gave them exercises and homework, asked them to make presentations. Everyone had to participate!

Everyone respects hard work and knowledge. Shri Krish Narayan earned respect not only because he was so knowledgeable but also because of his personalisation. He remembered each person's name: from the kitchen staff and the driver to the hotel personnel. He was generous with praise for work well done. The team worked very hard with him.

Padmakar Jawdekar confides in us. "My proudest moment was when, one year on, we asked G.E. Plastics for another audit. They were surprised. Could Excel have made so many changes so quickly? They agreed. The audit was conducted and we passed! We were given the order to make the product." This outcome brought the staff much-deserved recognition, and later, when G.E. Plastics was bought over by Sabic, it continued to buy Excel's products.

Today, Excel Industries Ltd is the largest THPE manufacturer in the world, supplying to all the polycarbonate manufacturers in the world, so that 90 per cent of the world's supply is being taken care of by Excel.

The large investment of time, expense and effort made in this entire exercise was completely justified, because awareness of environmental safety then became a culture in Excel.

Sachin Jadhav and Vishwas Joshi speak to us. "Training was extended and intensified." Our colleague Sanjay Jadhav, who joined in 1991, is a Six Sigma Master Black Belt from G.E. Plastics. He spent six months with G.E. understanding the entire process chain. Subsequently, he also finished the rigorous training for EHS, which requires a passing mark of 90 per cent.

"Staff also completed training in Kaizen, which forms the foundation of all waste elimination and operational excellence practices and 'lean improvement' activities. In this, they have achieved level three in MEP," says Maya Gandhi. "The MEP galleries reflect different achievements of Excel. MEP could mean various things: manufacturing excellence programme, management excellence programme, marketing excellence programme." She brought a team together to create galleries in the Lote and Roha plants, which contain records of achievement of the past right up to the present.

A visitor to Lote might be slightly confused by the greenery here. Careful cultivation of plants, trees, and landscape may camouflage the real purpose of this site and might prompt them to exclaim, "Is this a factory in a garden or a garden in a factory?"

The story goes on. There are compelling voices here, talking about **lifestyle changes.** The key words here, are: **Going beyond. A changed perspective.**

"The whole process made a difference in our lives. In my kitchen, items are labelled and regularly checked," says one voice. Jawdekar adds, "Now, at home, everything has a place. If the power goes, everyone can find the torch and candles blindfolded! It's the same with the toolbox and the plumbing and electrical items. If a chair is moved, it is returned to the original place."

Shriram Joshi, a civil contractor says, "What I learned from Excel, I do for my workers too. I have shown them how to benefit from government schemes, and I offer them a group gratuity. I think of safety in day-to-day situations, when I see children playing in the streets…"

And there are many more instances of Excel's training reflecting in the lives of those associated with the company.

How would you describe Excel?

"*Sanskruti*."

"Social responsibility."

"The employer–employee relationship."

"A family atmosphere."

"Humanity and spirituality."

"Freedom to experiment."

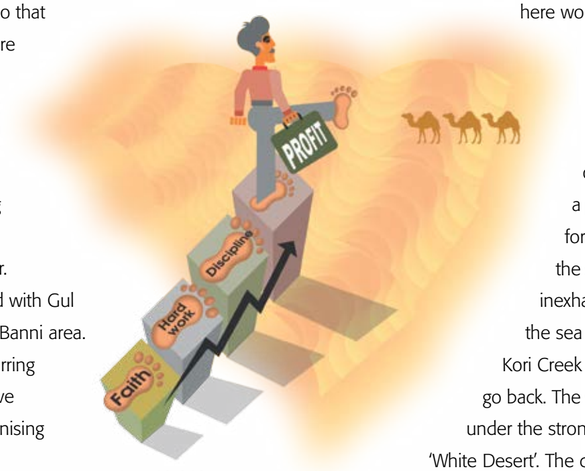
The answers spell security, care, responsibility and an all-round training. No wonder the local joke in Lote is that the men employed in Excel are the ones who get married early. After all, with all this training and a secure atmosphere, prospective brides consider them the most eligible!

Sagar Manthan: Dhordo and the Dream in the Desert

A Marine Chemicals Plant is Born

In the desert, survival skills are stretched to the maximum. For city people, some of the hardships are inconceivable; there is absolutely nothing in the desert that one can take for granted. Every resource is a gift, which one uses and reuses. Every day that passes without an untoward event is a day for gratitude. The World Wildlife Fund calls the Great Rann of Kutch "the bleakest, dustiest, and hottest region in India". One can feel the sandpaper dryness sweeping across one's face.

Dhordo is a village in Kutch, on the international border. Over the years, the redeeming Banni grasslands had given way to *gando baval*, a fast-proliferating tree that threatened cattle with disease. Droughts threatened livelihoods so that the local men, whose animals were often wiped out, were ready to migrate. During the monsoon, the flat desert of salty clay and mudflats, which averages 15 m above sea level, fills with standing water. Salty sea water infiltrates freshwater sources. Year after year.



Starting with faith, one step at a time.

Kantisenji (Kaka) sympathised with Gul Beg Mian, the respected elder of Banni area.

"Kaka, you know this is a recurring problem. You and Chandakaki have worked with the womenfolk, organising their embroidery and helping to market it through Shrujan. But when the droughts come, our animals die. What do we menfolk do?"

They needed employment, an occupation in a risky border area.

"Well, what can we work on?" Kaka asked Gul Beg Mian.

Gul Beg Mian shrugged his shoulders. "Look around. You know we have nothing. Only this salt water!"

Kaka's view of challenges was that they were just waiting to meet their solutions. "All right then, let's see what we can do with this salt water." He mulled over the situation. "Can you provide me samples of the salt water at different times, at different places?"

"Yes."

"Good. Let's see what we can do."

Over three years, samples were collected and analysed. Finally, Kaka was ready with an answer. "Yes. We can make bromine from this salt water." Kaka's words were never lightly spoken, but even though he might have known how much of a challenge it would be, he just moved on. "We can do it. We will take it a step at a time."

Kaka's son, Dipeshbhai, had set up Agrocel, a joint venture of Excel and Gujarat Agro. Since 1969, he had seen his mother, Chandaben, working with the ladies of that harsh region. This embroidery work could keep their kitchens running, but an industry here would enable the people to move up to a new level.

In the spirit of doing something pioneering and courageous, he would take on the challenge. It would be a project to extract wealth in the form of marine chemicals from the sea, a very abundant, almost inexhaustible source. He knew that the sea waters entered Kutch through Kori Creek during high tides, and could not go back. The waters accumulated, precipitated under the strong Kutchi sun, creating the 'White Desert'. The concentrated sea water left behind, called 'sea bittern', was a rich source of various chemicals, mostly inorganic, such as bromine, potassium, magnesium, sulphur and chlorine. These were somewhat uniquely available in Kutch, not in a trapped form as in the Israeli Dead Sea, but on a continuously replenished basis. It was an abundant renewable resource for chemicals.

In 1990, the plant was started.

Dipeshbhai recalls the situation: "The costs were prohibitive, since we had to start from scratch. Everyone thought I had gone mad. Gujarat Agro board members protested. This was a company, not the government, so leave the welfare activities to the government! An Excel board member, conscious of stakeholder interests, also objected, saying that it was too much of a social commitment and would lead to bankruptcy. But I could not let the Banni people down. Besides, I was sure of making a profit, perhaps later rather than sooner."


Ranaji Sodha, Factory Manager.

The plant was started with his own investment money. He mortgaged his property. Ashwinbhai stepped in. "He may be mad, but we cannot let him sink." The family made significant contributions.

There was also a nationalist agenda that impinged on the decision to put up the plant here. The brothers were very conscious of the example of Israel, a country surrounded by hostile neighbours, which chose to put up industries and other economic activities near its borders. With the plants came activity, and activity brought about a common concern and heightened awareness of comings and goings. A similar spirit of nationalism prevailed here. Dhordo, being near the international border, is subject to infiltration by people crossing over illegally. With a chemical industry and heightened activity, this would put a check on the infiltration.

During 1990–94, Manojbhai Gohil, then with Agrocel Pesticides, was hard at work. This was a 'project beyond logic'. No roads existed, there was no provision for electricity, no water, no communication lines… no scrap of infrastructure. Even today, although all this does exist, one is not prepared for how stark the landscape is. How could a bromine plant be put up here?

Manojbhai grappled with the demanding process of land acquisition for, initially, 10,000 acres of arid land. The place did not even officially exist on government records! He walked an ethical tightrope between getting all kinds of licences and paying no bribes. This was a triumph at the time, something he is proud of today. He recounts how, in 1994, the Chief Minister of Gujarat, Shri Chimanbhai Patel, laid the foundation stone for the Marine Chemicals Project, and then, within five days, he passed away.

"Perhaps that was his last official duty," Manojbhai muses.

Ranaji and Methabhai talk about their initial days. "When the tide came in, this 'imported' water from the creek flooded the land over and over. We contoured the land so that the water would rush onto the land and pour into the series of ponds we had readied and separated by bunds. Then we waited for the sun to do its job. By December, once evaporation had done its work, the saline crust hardened to form the signature luminous white colour.

"More land was bought, and now, it is from this 28,000- acre site that the Marine Chemical Division harnesses the principal raw material, sea bittern, both renewable and unlimited.



Dhordo is on Gujarat Tourism's map for its Rann Utsav. The Agrocel plant and its land have provided the basic support for the Utsav.

Inset: Mian Hussain, the Sarpanch of the region, and Nalemitha Morana, an old hand at the plant.

Agrocel manufactures 3,000 MT bromine and various bromine compounds that are required for pharmaceuticals, agrochemicals and specialty chemicals.

"Whenever word came that the salt water was pouring in, there were celebrations in the plant, with much backslapping and distribution of sweets; their raw material was arriving! Today, with Google's sophisticated mapping, the gladness is experienced in a more insular way."

Even here, the desert shows how much labour it sucks out before it gives. The result? Just 1–2 grams of bromine per litre of water.

But we are getting ahead of the story.

Ranaji, who joined in 1993, recounts how in the early days, they dared not raise their foot from off the truck's accelerator in the shifting sand, when they were struggling to transport essential equipment. Bittern spray on the road made it temporarily somewhat travel-worthy. A generator was used along with a gasifier and wood from the *baval* trees to fuel the plant. The local Maldhari people who manned the plant were illiterate. Desperately improvised telephone lines were stretched and re-stretched over 3 km, after rats periodically gnawed through the insulating rubber. Ami and Anshul, the Shroff family daughters, came for three months to work on some experimentation and to help set up the canteen, but where would they stay? A makeshift hut of grass and *baval* wood was put up for them, and jokingly called the VIP house! If any aspect of planning was even slightly lacking, they would have to make an 86-km journey to Bhuj, even to buy as small an item as a metal nut. The redeeming factor was the canteen, and, as in every Excel plant, the canteen was common and generous.

There were severe setbacks.

A cyclone in 1998. Another in 1999. A shattering earthquake in 2001. Floods in 2003, 2011, 2014.

During the earthquake, crevices formed in the earth, which filled with water. Crevices were narrow but deep, and very treacherous for unsuspecting walkers. However, even though the epicentre of the earthquake was near, the glass column in the plant remained intact.

"Our cry was for the 3 'P's: Power, *Paani* and Patel. Water, *paani*, was scarce, expensive and brought in tankers. Patel was our contractor, who helped us build and reconstruct the bunds which broke periodically."

Over the 28,000 acres of land, around 11,000 acres is covered by ponds. Almost 200 local people work on the plant, mostly Maldharis. Subtle but important benefits have seeped in. As Manojbhai observes, "Their **money management** has improved." This is evidence of their improved lot.

"The Maldharis had to maintain records, so we sat with them and taught them at least to put the alphabet together. They went through Excel's usual encouragement of job rotation, which helped them to become multiskilled. To avoid the vulnerability of only one product, a wide range of value-added bromine compounds was added. Stability looked feasible."

Sanjiv Mantri, today head of Agrocel's marketing division, who spent time in this desert area, remarks on the characteristics of the company's working. "The undertaking was mainly an attempt to solve the problem of the men's livelihood in that area. The Shroff family creates goodwill wherever they set up their plants, engaging the local people. This company's approach is not found elsewhere."

Today, Agrocel manufactures 3,000 MT bromine and various bromine compounds that are required for pharmaceuticals, agro-chemicals and specialty chemicals.

Mian Hussain's daughter is studying for her Masters. Boys and girls study together. Women, whose 'purdah' extended far behind the walls of the '*vandh*', the family enclosure, now visit male doctors. There are banks and two ATMs. Camels walk alongside trucks and jeeps.

Dhordo is on Gujarat Tourism's map for its Rann Utsav, a carnival of music and dance on the white sands, which brought GEB's supply of electricity to the area, offering much relief. This Utsav leaned heavily on the presence of the plant for its own existence, using Agrocel's land for its official events. Visitors and government officials found that the canteen was hospitably open for them. And now, the road to the plant touches the highway, shrinking plant-to-highway time from over 180 minutes to five minutes.

The Dhordo Plant would not have come up without Manoj Gohil's relentless efforts.

The Gateway to the Rann Resort area was supported by the government and Agrocel for operations. The income from the tourism activities has helped improve the economic conditions of the local community substantially. The legendary thespian Amitabh Bachchan's catchphrase, "*Kutch Nahi Dekha toh Kuchh Nahin Dekha!*" is his endorsement of Kutch as a tourist destination.

Among all these triumphs, Dipeshbhai feels that the biggest achievement is in successfully motivating the local people. To them, he openly revealed the salaries he paid to the better qualified people he hired from outside the local region.

"If you were educated, I would pay you this amount too." So, the plant now has applications from those who are close to completing their official schooling.

Operating a difficult process in very hostile conditions takes us back to the founding years of the parent company, Excel Industries. Then too, the company was in its infancy, the nationalist spirit was at its height during the war-torn years, and employment was offered to unlettered locals, the Warli community, whose strengths were recognised and encouraged. As in Dhordo, they were trained on the job, till they reached, and often exceeded, the required level of competence.

Agrocel's marine chemicals division has turned the White Desert's harsh geography and climatic conditions into opportunities. They have used a renewable resource to generate employment and livelihood for over 500 families. Other companies have taken heart to enter this hard region, drawn in by Agrocel's initiative.

'The Dream in the Desert', proclaims a hoarding, as one approaches the bromine plant.

Now, it's a reality.

"The Marine Chemical plant in Dhordo became a story of indefatigable faith in a shared vision, where the problem offered the solution, as well as local employment for those who might have migrated".

The Rescue Mission

Proxy Wars and Shares Buy-back

We telephone Mrs Usha Shroff to ask her when we could meet her. There is a pause on the line. "I'm looking after my grandchildren at the moment. But I will come to the office tomorrow afternoon. You can come at 3 o'clock."

If this brief exchange throws up the image of the homemaker who attends office because she happens to be the wife of the Chairman, please discard it straightaway. Ushabhabhi, as she is affectionately known, is currently the executive vice-chairperson at Excel and is as efficient a homemaker as she is in this position. There is plenty of evidence to establish this.

"Till I got married and entered the family, there was no Commerce graduate in the family. My father-in-law was progressive and magnanimous. I was encouraged to carry on with my studies after my marriage in 1967, and later, I completed my Masters in commerce. Fortunately, in the family, daughters and daughters-in-law are treated on par.

"After Govindjibhai, I was the one who had some knowledge of finance and legalities. Soon enough, I was inducted into Excel. Excel and its companies have provided an excellent platform to bring into play my knowledge and skills to the hilt."

Excel then was still a small company. The year 1961 was when Shroffs took on financial partners as 50 per cent shareholders of the company, maintaining a mutually wonderful relationship for 20 years during which the association flourished. Excel had gone public very successfully in 1971, the issue being oversubscribed 32 times. There were about 55,000 applicants. Those were the times when Excel was generally overcoming setbacks and yet moving purposefully ahead.

However, in 1983, there was a sudden, completely unexpected move initiated by a key person from the partners that threatened to capture Excel and snuff out its very existence. The modus operandi was to put forward a resolution whereby Excel would offer an issue of 3 crore fully convertible debentures at a premium. This happened on 27 February 1983, at Excel's board meeting. The annual general meeting was to be held on 30 March, just a month away, when the resolution would be passed.

What did this imply?

The Shroff family's own shareholding in Excel was about 19–20 per cent at the time. The financial partners' holdings had also gone down to about 20 per cent. The rest was held by the public.

Ushabhabhi, proxy wars and checkmate!

If these proposed debentures were to be issued to the public, it could mean that on conversion of the debentures, the shareholding of the Shroffs could be diluted, and control of the company would be tilted and tipped over, out of the hands of the Shroff family, the founders. If Excel ceased to exist, the Shroff family's identity itself would be threatened!

The news created waves. The media fed on it and sensationalised it through their headlines. The Shroffs had to fight back! They had to stop this resolution from being adopted. The situation was grave and the consequences were dire enough to warrant an all-out 'war' against this move.

Ashwin Shroff and Kantisen Shroff, being directors of the company, had their hands tied. Ushabhabhi recounts the event, "I, then just a regular employee in the accounts department, took up the challenge. With my background in accounts and finance, I was the logical choice to take on the task of saving the company and the Shroffs' corporate identity with it!"

And what did she do?

"My being part of the Khatau family was helpful. We went to Dharamsibhai Khatau, my father's uncle. Khatau Makanji, who founded the Khatau Textile Mill, was my great-great-grandfather ('*Dada na Dada*'). Fortunately, as children we were allowed to listen in, when business talks were going on in the family. It was so in the Shroff family too, so I had some grounding in business. I approached my grand-uncle, who introduced me to his personal lawyer. For 15 minutes of consultation, he charged me Rs. 1,000 then! It was half my monthly salary! But it was absolutely worth it. With his guidance, we created a whole group within the family to gear up for the 'war'."

Briefly, the situation went along these lines. Given that this was a special resolution, 75 per cent votes had to be in favour of it to be passed. The Shroffs needed to have over 25 per cent votes to stall and dissolve this resolution. This meant that they had to collect the shortfall of votes from the public, and they had to do this before the annual general meeting, which was in under a month's time. This was predictably a near-impossible task.

Ushabhabhi's constraints were many. She could not work on this 'project' while being in the Excel office. At the same time, Kaka and Ashwinbhai could not help in any way; being legally bound, they could not solicit any proxies or votes.

"Our first job was to acquire a list of the shareholders, a first step towards collecting proxies/votes. How could we get this? Rajjubhai and Sandrabhabhi helped me tremendously. Rajjubhai's office, United Phosphorus Ltd, became 'my' office for this challenge."

Rajjubhai and Sandrabhabhi, along with their team of legal experts, sent a request to Excel, asking for a list of their shareholders, as they were entitled to do, under company law. They also sent a cheque for Rs. 1,000 to cover the cost of photocopying. Once they got the list, they worked on a war footing, against time.

"The entire family, from the eldest (Mummy) to the youngest (Dipeshbhai), and all our relatives, all our friends, including my side of the extended family, fanned out like a massive force and approached whoever they could, to collect signatures. I remember Mummy (my mother-in-law) and Kaki went from door to door for this… it was an immense effort! Besides, all the proxy votes had to be lodged with the company at least 48 hours prior to the annual general meeting, and the clock was ticking. But, our aim was to 'unite and fight'. Everyone networked to save the company, and with all that hard work, at the end of three weeks, we managed to collect our target number of proxies! We also raised the issue in the media and reports of the likely adverse developments vis-a-vis Excel and the Shroffs started appearing."

The partners, a large and reputed business house, were sensitive to adverse publicity. The key person came under pressure to withdraw the move and save the Group's image. The Annual General Meeting was scheduled for 3.00 p.m. on 30th March. To save face, on the morning of the day of the meeting, at 11.00 a.m., the resolution was withdrawn at a special board meeting. It did not even reach the 3.00 p.m. meeting.

The company was saved.

Acquiring the Tatas' Holding in Excel

Ushabhabhi recounts another critical event from Excel's chapters.

Around 1996–97, when Ratan Tata began looking into investments made by Tata Sons, he decided to focus on those companies where the Tatas had management control. They began withdrawing their stake from wherever they were mere investors. Accordingly, they decided to withdraw their investment from Excel and offered their holding to the Shroffs. Now, their 20 per cent stake meant a huge sum of Rs. 45 crore in 1997. The Shroffs did not have the money to buy their share of the company! It was, again, a 'do or die' situation!

John Hewitt, who brought Excel and Tatas together, with Kantisen and Ashwin Shroff.

Shri G. Narayana, then Excel's Chairman, set up a series of negotiations to make up this amount. The Shroffs managed to collect Rs. 30 crore, which left a shortfall of Rs. 15 crore.

Now, where were they to find the balance Rs. 15 crore?

Ushabhabhi came forward.

"I pledged my entire shareholding. Anyone who lent money to Excel would need some security, so my shares would provide that security. I remember how the Tatas acted graciously, that even while disinvesting, they helped us out. They offered us a novel proposal. They were willing to give us a loan of Rs. 15 crore for a year, in return for the shares pledged with them by the Shroffs."

It was a gracefully offered bridge loan, to tide over the funds squeeze that the buy-back would have entailed for the Shroffs. This offer provided the much-needed 'breather'. It was equally gracefully accepted by Excel.

Ushabhabhi in Lote.

However, as Ushabhabhi adds in a more wistful vein, it took her over 10 years to repay the money. She had to pay in her personal capacity, because her own values would not permit her to take it out of Excel in any way. She had taken the loan in Anshul Chemicals (today, Anshul Specialty Molecules Pvt. Ltd) and so, had to earn through Anshul Chemicals to repay the loan amount.

It was hard. The initial interest rate was a prohibitive 27 per cent, since she had to borrow at short notice. Over time, it came down to 18 per cent. Often, she found it difficult to pay the interest. So, Anshul was in the red, not on account of its manufacturing or sales, which were profitable, but because of the extra burden of the debts it had accumulated. Even when Ravi took over Anshul, in 2003–04, Rs. 9 crore of the loan still had to be paid back.

"But I had invited it," she says with a matter-of-fact laugh. "And we proved we could do it, with our principles intact. We could have made Excel's products in Anshul to increase profits, but that would not be right. We followed the proper channels and didn't encroach on each other's space.

"Ravi stepped up the manufacturing profitability, while at the same time, the loan amount was reducing as it was being repaid. Ultimately, in 2008–09, we were free of all the debts."

It requires a great deal of courage to step in when things are rough and take bold decisions and risks, more so when a woman from the family steps forward to do this. Do these qualities resonate with those of her father-in-law, C.C.? Or do they reveal themselves as part of the Bhatia community itself, and the spirit of enterprise?

Whatever the answer, the evidence of those qualities is amply demonstrated in Ushabhabhi's role in Excel's history.

Because Some Success Stories Begin with a Failure

Preparing for the Shake and the Next Take: Moving on from HCN

What do you do when you choose a plant site because your raw material will be at your doorstep, then suddenly, the government pulls the carpet from under your feet by denying it to you? This was Transpek's predicament in 1964 when their need for HCN (hydrogen cyanide) prompted them to move the plant to Vadodara, nearer their supplier, IPCL. Transpek wanted to manufacture Methyl Methacrylate, an important polymer, and HCN was a valuable precursor to it and many other chemical compounds. So valuable that the government, recognising this, suddenly decided HCN could be supplied only to public-sector companies.

Here was the company with a plant, a team, and losses that exceeded their investment, desperate for raw material. Transpek could have crushed apple seeds for the HCN found in them, but it chose a wiser path.

"We forgot about HCN and moved on." Atulbhai reminisces about Transpek's first 'love story' that had gone sour. "When you hit a speed breaker, **you learn a new subject and unlearn an old one.** Whether it is a competition that makes you redundant, a policy change that topples your cart, a client or a mistake, you move on."

In 1968, the product was changed.

"We were producing thionyl chloride. When the demand for this decreased, we looked at value addition. We used it as a raw material for a high-end product. Some looking around, some out-of-the-box thinking, earned us neat sales of Rs. 20 crore.

"Challenges are common. Suddenly finding yourself at the bottom of the see–saw is a possibility you have to always be ready for. I see it as a fight against the force of gravity that's pulling you down."

"We had a plant—the newly established Transpek Industry, without a product because of a sudden government ban," recalls Atul Shroff.

Atul Shroff philosophically analyses the learning curve he traversed when failure knocked.

"Around 2001, Transpek was going through a financial crisis. We had to sell several sites to tide over these tough times. Our turnover had plummeted to Rs. 25 crore from being a Rs. 125 crore plus company. Today its turnover is 300 crore. This process was initiated by building on Transpek's strengths and containing its weaknesses.

Numbers: quantifying, controlling and evaluating them at every stage in the production process, from planning to purchase to delivery, was the key.

"The exercise was a bridge between the old and the new. It was mentored by Ravi, my nephew, the architect of the plan. Bimal Mehta, the Transpek team leader, held the reins at base. He, along with the team, did everything to give momentum to the turnaround. We improved accuracies in processes, invested in automation, put in place robust reporting and evaluation systems, bettered our safety protocols and efficiencies at every level."

"Our client was in the US. His orders were large, but erratic. The key to retaining the client was to supply the desired quantity within three days of the order. We relocated warehouse facilities close to our client and stocked the material there in a semi-ready form. We just needed some small steps to actualise the delivery. With this arrangement, we could supply the goods as required without pressurising or expanding our infrastructure."

Bimal Mehta, Managing Director, Transpek, takes the story further.

"Every rupee spent is connected with profits and we need to look at this with a magnifying glass. The staff was taken into confidence. We worked out how to quantify improvements in consultation with our staff. No new investments; the focus was on increasing output with the available infrastructure. Examining opportunities for waste elimination at each juncture was the starting point. Even a minuscule waste amplifies with volume.

"Just as there is a cost for making a market-ready product, there is a cost for not doing things right. For example, the price for purchasing a lemon is a visible cost that is easy to quantify, but there is also a cost for not squeezing the utmost from the lemon. This remains invisible to us till we look beyond traditional costs. The outgoing costs are as critical as the costs of underutilising or over-utilising.

"Automation and streamlined systems can also be leveraged to advantage. An automatic packing machine we installed ensured accuracy to the last milligram. Manually, you tend to pack a few grams more to minimise chances of rejection on this count. A few grams more add up to several crore rupees. Streamlined automatic reporting and data-crunching systems provide crucial real-time data, giving you informed controls in turbulent midstream.

"Just as numbers are important, people are critical. Train your existing team and induct new professional talent; both have to be done in tandem for the next swing."

We listen to these insights from Bimal Mehta with fascination. Atul Shroff takes us back to the beginning.

"The fledgling company was initially managed by Shashubhai. I was sent here in the eighties to take charge of this small company. My mother was upset. My father, Govindjibhai, assured her that her son was 'capable of making his own fortune'. I would like to think of myself as a 'bounce back' champion. It's important to learn to make failure a tool as opposed to a roadblock. Even Edison failed 800 times. Failure hurts, but it's how you learn to get better that matters."

We remember Ashwinbhai's remark in a different context. "You don't stoop to collect spilt milk. Along the way, you make sure that you are prepared for the shake and the next take."

Atul Shroff echoes Steve Jobs: "The good part is that when we fail, the heaviness of being successful is replaced by the lightness of being a beginner again."

"Making Transpek profitable was challenging, like a fight against the forces of gravity that pull you down."

Four Layers of Skin

The New Generation: Refashioning Skills and Changing Perceptions

The choice between the well-trodden path and a walk down a blind alley is a daunting one. When members of the next generation in a family-run business enter, their acceptance can be a bumpy ride. People are comfortable with the old ways, and though resistance to new ideas and ways of working is not overt, there are invisible barriers, the 'glass ceilings'.

"My first 'glass ceiling' was the seniors at Excel,'" says Ravi, a Gen-III Shroff.

Getting past glass ceilings and being accepted was difficult because there was much convincing to do.

With pharma, Gen-III had to re-examine their marketing approach. The situation had changed. Earlier at Excel, customers communicated their needs to the company. With pharma, Excel had to go out and meet potential buyers, a reversal of the existing marketing approach. "We have been in the chemical space since we started in 1941. Pharma intermediaries was a new product area. I had been tracking pharma companies and their growth stories and was convinced that there was an opportunity here.

"Gen-II members and experienced seniors were sceptical. I put forward my plan and my justifications. I stressed that though Excel had a reputation and long manufacturing experience that would stand us in good stead, we could not develop customer confidence without a dedicated facility and a work culture that was distinctly 'pharma'. We needed visible, tangible evidence of our commitment and capability before we could solicit business. We had to show that we could meet the strict regulatory processes and precise and meticulous documentation that are the norm for the pharma industry.

"Here was another task to be handled. We were venturing into uncertain territory with a large investment in a new facility. Was it warranted?

"One and half years down the

What Ravi perhaps needed in his entry into this new business was something as unique as the chameleon, a nature's wonder that has four layers of skin. These layers allow it to respond rapidly to changing scenarios, lurking competition and hidden opportunities.

line, in 2014, I had a plant in Lote, but no product or plan. The product I had proposed had become irrelevant because the profit margins had shrunk by the time the plant was put up. The pressure was mounting. I had to justify the investment.

Generational learning travels back and forth at Excel, Ravi and Ashwin Shroff.

"At Excel, we were product-centric—'I can make this…'—but for the pharma unit, I had to be market-centric. 'What is the demand? What does the market need?' I had to equip myself to make that. And I had to make it faster than my competitors.

"With my ear to the ground, I found the opportunity, but I also realised that pharma was a fast-changing market, a market with incredibly short cycles…"

What Ravi perhaps needed in his entry into this new business was something as unique as the chameleon, a nature's wonder that has four layers of skin. These layers allow it to adapt its colour rapidly to changing surroundings. It is a gift of nature to help it survive. Different 'colours' to adapt to the shifting seasons…

With his clear purpose, however, it was the others who began taking on the colours of changing perceptions. The plant had no product at the time, but there was a clear conviction that once the necessary tools were in place, products would be ordered. Ravi knew that **his tools were his good skill sets, his intention, and a firm ownership and responsibility for his decisions.**

What were these skill sets?

"In pharma, you have to be relevant in the market. Pharma customers would have different needs. If you go to a new country, and you don't know the language, you struggle to navigate. Unless you learn the language! Pharma needs a different language, including that of regulatory aspects, and the right set-up and tools that would allow me to navigate that territory. My proposal was that we needed to invest in these aspects. So, even though we may have no product, we would have the tools."

The state-of-the-art-pharma facility at Lote-Parshuram.

The glass ceiling slowly gave way. The colours changed, adapting to this entry into the new environment of pharma.

With the tools ready, the orders for products came knocking.

Getting into Top Gear

The Turnaround of Anshul Specialty Molecules Pvt. Ltd

Anshul Specialty Molecules Pvt. Ltd is a manufacturing company managed by the Excel wing of the company, located in Goregaon, a suburb of Mumbai. Usha Shroff, currently the Executive Vice Chairperson of Excel, who was then notionally in charge, had been keeping indifferent health. When her son, Ravi Shroff, returned from Boston University in 2003, having earned his postgraduate degree in chemistry, ASMPL's finances were not in good shape. While Ravi knew he would join the family business, the question was where and how to start.

Like his grandfather, C.C. Shroff, he looked forward to challenges. He chose to face the spectre of plunging into Anshul, the company that was ready to be shelved. "I knew I was putting my head into the lion's mouth," he says. At the same time, he felt that just because it was making losses didn't mean its future was closed off.

He did his homework, pored over the R&D, and began understanding how it all came together… or didn't. When he relayed his questions to his mother, she flipped his questions back to him, "Well, what do *you* think you should do?" He answered his own questions by taking action. The results were encouraging and his confidence burgeoned. When colleagues came to Ushabhabhi for advice, she referred them to Ravi. At some point, she deliberately stopped going to the company's office, giving a clear signal that Ravi was now the 'go to' person.

He set a discipline for himself from the start. He was not going to milk the parent company, the banks, nor the family, for its funding. Profits from Anshul itself would be ploughed back into the company.

It took just over a year of gathering information, watching, and assessing to diagnose where the loose ends were and what was needed. Some products, glinting with promise, had to be coaxed into the foreground. With others, the cord had to be cut. A core team was needed.

Envisioning that finish line and riding out to cross it: the turnaround of Anshul (ASMPL).

The early mapping of key team members was crucial. Were there key members in each department of finance, production, engineering and others?

The first product identified to be developed was DMA, or dimethyl anthranilate. They were making methyl anthranilate, so the 'di' part was similar, albeit more expensive and premium grade and with better profit margins. What's more, Anshul could sell this to existing customers. As a team, they learned to enhance their market position to get incremental business from the same channels. Success brought confidence to the team. As it happens, DMA is still selling 13 years later.

With his team, Ravi identified another product. The story hiding behind the success of Product X might rival a James Bond plot, because the product name cannot be revealed here. Ravi realised that the European market for it was 10 times more than the quantities Anshul was selling. But ramping up its production presented a different kind of challenge.

"We would have to think of customer audits, upgrading facilities, quality checks, ploughing money back for its production…it was much more complex than just whitewashing walls. We knew it would be a long haul to produce our niche product on that scale to satisfy our customer."

At the time, only one European company in the world was making this product and selling it, mainly in Europe. Anshul's market was tantalisingly visible, but much internal churning was on the cards.

The first need was to build team confidence. Excel's founder, Pappa, had an infectious catchphrase, "If **they** can, **we** can!" Confident that they could, they looked at numbers next. How could they trim costs?

Data had to be looked at. R&D had to be sustained. Quality had to be achieved. Anshulites were acutely conscious of the customer audit, because European quality checks were of the highest standards, so clarity was needed on how Anshul could become larger than the local competition. To compound the challenges, the product was not easy to either manufacture or transport.

Two years passed, and facilities were ramped up. A tentative probe in the market revealed a local distributor in Europe who knew how to store and transport Product X. He had retired from the competitor's company and knew the product. Here was a major competitive advantage. He studied the problem. A solution was to repackage the product into smaller containers. This was carefully done, and the containers were then transported within Europe by rail, to be distributed.

Today, Anshul is the global leader in the manufacture of Product X.

In keeping with the needs of the competitive era, the style and structure of managing companies needed to be revamped. Ravi visualised teams of empowered people, competent in their own subjects and areas, being given the requisite authority, achieving desired and agreed results in an accountable way, with appropriate remuneration and rewards systems. He extended the same principle of empowerment to other Group companies.

The message to each empowered team is simple: "Look out for yourself."

About 18–20 months down the line, Anshul was in much better shape. Since then, its growth trajectory has been upwards.

While Ravi takes much satisfaction in coaxing the Anshul motor back to life, he is careful not to get mired in complacency. Like his father and grandfather, he has other things to do. **He has to be in the vanguard of the next exploration.**

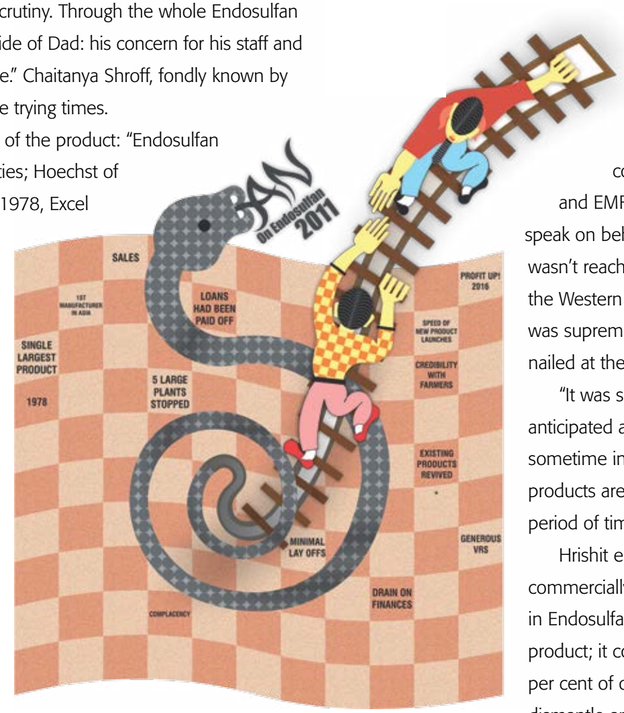
Ends and Beginnings

Endosulfan: The End of the Romance

"I was 18 years old when dad broke an unwritten rule he had scrupulously followed all his working life. He began bringing his office home.

"That was in 2001, when concerns regarding the toxicity of Endosulfan, a broad-spectrum pesticide very widely used by farmers, were raised, starting with adverse reports from a small obscure village in Kerala, which were picked up and highlighted in the western world. International steps were being taken to restrict the manufacture, use and trade of Endosulfan under the cloak of protecting human health and the environment. Dad (Dipesh Shroff, CMD, Excel Crop Care) pored over reports and books, discussed the pros and cons with scientists, and scavenged the internet to get to the truth of the matter. I assisted him in this scrutiny. Through the whole Endosulfan episode I got to see another side of Dad: his concern for his staff and his steely grit and his resilience." Chaitanya Shroff, fondly known by everyone as Chikoo, recalls the trying times.

He gives us a brief history of the product: "Endosulfan was developed in the early fifties; Hoechst of Germany was the pioneer. In 1978, Excel became the first in Asia and the second in the world to manufacture Endosulfan and did so entirely through its own in-house efforts. It was a tough product to make. 'Endo Tech', as Kaka had christened its manufacturing saga, was a story of teamwork and impeccable quality, achieved in record time. Despite sincere and relentless efforts to save the product, in April 2011, global consensus was reached on adding Endosulfan to the list of banned substances and phasing it out as an agrochemical by the year 2016. And in startling succession, on 13 May 2011, the Supreme Court of India issued an 8-week 'interim', a temporary ban on production, storage and sale of Endosulfan."



"Endosulfan was our bread and butter. After it was banned, we made our own ladders!" –Chaitanya Shroff.

Hrishit Shroff, who worked closely with Dipeshbhai to present the true side of Endosulfan, gives us further details about the fight to save Endosulfan. His conviction and vehemence about the manipulation of facts are apparent. "Excel and The Endosulfan Manufacturers Association of India (EMFA) valiantly supported India's efforts to represent true facts in global conventions such as The Stockholm Convention and the Rotterdam Convention, as well as in various regulatory and legal reviews internationally. We had a deep conviction and faith in the merit of the product. It was a broad-spectrum and cost-effective product. Excel and EMFA did everything they could to speak on behalf of the farmers, whose voice wasn't reaching the air-conditioned halls of the Western world, for whom commerce was supreme. Endosulfan's coffin was nailed at the Stockholm Convention."

"It was sudden," Chaitanya recalls. "We anticipated a ban, but expected it to come sometime in 2016, probably 2021, as products are generally phased out over a period of time."

Hrishit elaborates: "Emotionally and commercially, we were heavily invested in Endosulfan. It was our single largest product; it contributed to more than 60 per cent of our profits. It is not easy to dismantle an edifice that was made by the blood and sweat of generations. However,

The Endosulfan plant at Bhavnagar.

we did not spend any time grieving. The word Endosulfan was banned in our organisation: in thought, whispers or words. We had to use this 'blow' as an opportunity to transform and grow."

The positivity embraced by the Crop Care team as narrated by Hrishit Shroff was definitely not an easy choice.

"We—and by that, I mean everyone in the Shroff Group, all our senior management, our R&D team and all those working in the plant—resisted the ban of Endosulfan because we truly believed that the product was not what it was painted to be, a persistent pollutant. The ban was being pushed because the product had lost commercial attractiveness from the European producers' point of view. The vested interests of European manufacturers were being protected. They could not compete with India's lower-priced product. Also, they wanted to clear the deck for a new, 100 times more expensive molecule they had developed. Will you buy a Rs. 100 tablet to alleviate a headache when you can be relieved by a tablet that costs less than a rupee? Why should our farmers be forced to do so?"

Dipesh Shroff takes a moment before continuing: "We had a plan B, but that would take a few years to fructify, given the highly regulated nature of our industry.

"Three large plants and several small plant facilities had come to a grinding halt. A staff force of 300 was sitting, twiddling their thumbs. The atmosphere was tense and charged. A layoff seemed inevitable, or that's what everyone advised us. But I was adamant. I would not lay off one single employee on account of Endosulfan. I knew what a loss of job would mean for my Bhavnagar staff. Without the Excel badge, the uniform that gave them a certain standing and credibility, they would be cornered in every way. New jobs would be difficult to come by in this small Saurashtra town. They would be given no credit at the *baniya* (local grocery) store to pull on till they found an alternative. How would they pay for their children's fees or look after the elders in their family? Families would be divided if they went elsewhere in search of a living."

As in other trying predicaments—whether it is a VRS package, a safety issue, or balancing people and profits—people were and are always a priority for the Shroff Group.

Chaitanya picks up the thread: "Dad's bold decision to retain everyone dissipated the dense atmosphere of gloom and dread. Everyone had been ready for the worst. From despair, a wave of determination rippled through the length and breadth of Crop Care. It ignited a fire in our bellies, our focus shifted to the power of the possible.

"The only redeeming factor was our financial situation. Dad had managed that prudently. A large chunk of loans had been paid off. Our credibility with the bankers had enabled us to buy time for repayment of the remaining borrowings."

No Jingles or Mingles…

"We have worked hard to build our credibility with farmers. We don't advertise our products, but spend that money on educating farmers about the correct application of our products, and demonstrate its impact on various parameters such as soil health, plant growth and other aspects of plant health. Our distributors' meets are held modestly in our R&D lab, in our training centre or in the fields."

"In fact,"—Dipeshbhai guffaws in his signature style—"our distributors go for all the fancy meets and mingles arranged by our competitors, while they send their children and younger staff to our meets. '*Bacche bigad jaate hai*', they say, afraid that the children will see only the glamorous side of the business. 'We want them to learn,' they say."

Hrishit summarised the crisis: "We had two large holes to fill: the commercial dent that deeply impacted Crop Care's survival and the product vacuum in the farm space, the farmer's needs. We had to deliver a new pesticide molecule that farmers could afford. We revamped our facilities to increase the volumes of some of our existing products and introduced some new ones. We looked at pesticides,

Reliving the days of challenge: Chaitanya and Hrishit Shroff.

herbicides and fungicides, the last being a new area for us—"

"You've forgotten the emotional baggage, Hrishit," Chaitanya says, interjecting. "We had to digest the fact that from leaders, we had become followers who had to run faster. We were no longer in the exalted 'firsts' category. And so began our chase, the chase for new molecules." Chaitanya elaborates on the post-2011 scenario. "Our chase had all the trappings of a Hollywood drama, high speeds, sliding around tricky corners, leaping over obstacles, crashing into things and 'stunts' in the lab. For four years, we've been speeding and chasing. We have yet to sit back and relax."

Chaitanya describes those nightmarish yet exciting days. "I had just entered the scene in 2012 and the challenge was high octane for me. I still remember those nights in the lab with the R&D team. Whenever I was stuck or felt cowed down, I went back to Dada (Kantisen) and the stories of the founding generation. I had questions and more questions for him. How did you slide out of bottlenecks? What strategies and tools did you use? What were your time frames? He often quizzed me back till I found my answers.

"They (the founder generation) rolled out one molecule every five years. In the past four years, we have rolled out seven to eight molecules. This year, we launch five new products, something that I doubt even the giants, the MNCs can claim. The ban nailed us, but we have resurrected ourselves. Crop Care is soaring once again.

"I may have suffered from a complacency syndrome," Dipesh Shroff admits. "My priorities and challenges were different. I cannot boast of many innovations from the chemical perspective, but these boys did not have the luxury. They had to reinvent on the run."

"Earlier, through the fifties to the seventies, the challenge was to make indigenous products available. Today, the demand is to make products affordable and safe. This is where we have to innovate, to be leaders again," Hrishit says.

Ironically, all the Gen-III Shroffs started their careers with challenges, either by default or by choice. Ravi Shroff opted to turn around Anshul Chemicals in his early years; Hrishit and Chaitanya grappled with the ban on Endosulfan.

The tough starts will definitely make them more adept at flying their kites in the thunderstorms they may encounter in their careers.

Ends bring new beginnings. New beginnings bring promise.

Excited, they talk of the canvas of unlimited possibilities before them.

When My Team Disappeared…

Chaitanya Shroff relates: "Though I was running, I was enjoying every bit of the race. Like an Olympics champ, I wanted to outdo my own record. So, there I was working with our R&D chief on the development of a new molecule, triazophos. The quiet of the night shift made the work even more absorbing. We had set up our experiments and controls and took readings every half hour. The chief and I were totally engrossed. He was perhaps humouring my curiosity and my passion. In between readings, we were engaged in discussions probing alternatives. Suddenly, I realised there were no other voices. Where were our team members? At the end of it all, we found all five of them chatting in the control room. When I confronted them, they said, 'We did not want to disturb you. You didn't seem to need us.'

"I was angry, and I also wanted to laugh. That night, I learnt an important lesson. You have to work like a team player and engage everybody to sustain their interest, as also benefit from their contribution."

The Bittersweet Story

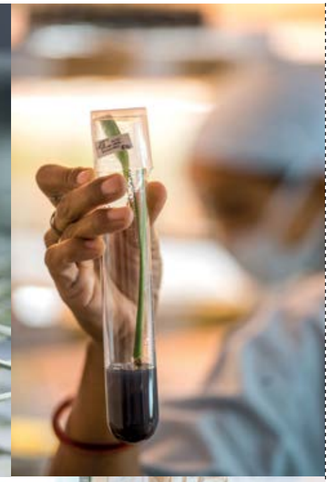
Getting to the Basics: Date Palms in the Lab

Years ago, the native Kutchi '*kharek*', the date palm fruit, had a slightly astringent-dry taste and texture. It was sold in the local market for a nominal price. The erratic nature of the yield and inconsistent quality of the fruit added to the farmers' woes.

And then, in 1998, came the cyclone. The fury of the wind hurtled most of the date palm trees to the ground. This destruction 'resurrected' the date palm in a new avatar. The Kutchi date palm bore one of the sweetest date fruits in the world.

The farmers must have thought, "These trees are so enormous and their fruits so sweet, we are certain these trees possess magic."

How the date palm trees consistently yielded a sweet fruit is not a story from the book of fairy tales, but a chronicle of how concern, business acumen, modern science and rural women painstakingly nurtured the date fruit that brought prosperity to local farmers. The sweetness of date palms was not something that could be taken lightly. Only female trees yielded fruit, unfortunately, and the gender of the tree or the quality of the fruit could not be taken for granted. As the yield was not consistent, the market was variable. The farmers were always at a loss.



The cyclone prompted Late Shri Sumatibhai Mehta, former trustee of VRTI, to search for a solution that could provide farmers a dependable income from the local date varieties. VRTI's evaluation of the local date palm varieties was a rich resource he drew on.

Date palms can be propagated sexually by seeds or asexually by offshoots. When grown from seeds, there is only a 40–50 per cent chance of it growing into a female fruit-bearing tree. Regrettably, this is clear only at the time of fruiting, which is after a patient wait of three to five years. The greater drawback of propagation through seed is that the plant may not necessarily be true-to-mother plant and may significantly vary in size, shape, colour, taste and feel. Imagine what this means for farmers: wasted time, energy and money, and no earning.

On the other hand, the offshoot, the progeny palms will be identical to their mother trees, but with a downside: large-scale propagation was not possible by this method as the mother tree yielded limited offshoots and the survival rate of progeny plant in the field was very low, less than 35 per cent.

Date palm tissue culture, though complex and with limited success around the world, seemed to be the answer to providing farmers a steady income from premium local varieties. Micro-propagation through the science of tissue culture in a controlled lab environment could provide disease free, genetically stable, uniform planting material in every aspect of colour, size, sweetness, yield and environmental tolerance. And that too in large quantities.

In the year 2001, Sumatibhai sponsored an NGO, the Rural Agricultural Research and Development Society (RARDS), to set up a date palm tissue culture lab in Mundra, Kutch. The NGO was later transformed into a commercial venture, Kutch Crop Services Ltd (KCSL) in 2008, to optimise output and ensure sustainability rather than be dependent on donations and grants. KCSL is a joint venture of Excel Crop Care Ltd, Agrocel Industries Ltd and an enlightened Kutchi businessman Kalyanji Gala. Today, the lab, amongst the 10 successful date palm tissue culture labs in the world, has sold over one lakh plants to local farmers. KCSL has also been importing the tissue culture plants of Barhee variety from the Middle East. In last six years, KCSL has supplied more than 40,000 Barhee plants to farmers across the nation.

"With great effort, we have risen to international standards. No other lab in India has had the success we have had. Date palm tissue culture is a very slow process, requires a very controlled laboratory environment and careful nurturing. The entire process from offshoot initiation to plants ready for field planting is nearly

As early as 1994–95, a team of senior scientists from Date Palm Research Station, Mundra (GAU), field staff of the VRTI, an NGO established by the triad of the Shroff family in 1975, local progressive farmers, and an Israeli scientist, all undertook the Herculean task of identifying elite date palms based on a set of 25 parameters. They screened 220 local trees out of 1.5 million trees and shortlisted about seven premium species for tissue culture development. Today, with the addition of a few imported varieties, the scientific team of KCSL has successfully micro-propagated in the tissue culture lab more than 16 varieties of date palms.

Facing page and above: **Women at work in the state-of-the-art-date palm tissue culture lab. Their job is to do a timely diagnosis: identify fungus, bacteria and virus that may be infecting the tissue culture plant.**

The date palm plants ready to be sold to local farmers.

The crunchy red *kharek* ready for the market.

four to five years," says Sunil Vaishnav, beaming. He manages the state-of-the art laboratory. "Product diversification is definitely a direction forward, but not in the near future. We would like to remain dedicated to date palm till our production is absolutely consistent.

"Against an initial investment of Rs. 1,50,000, farmers can now earn Rs. 2,50,000 to 3,00,000 from about 50 trees grown on one acre of land. Selling plants to farmers is only a beginning. Once the plants are sold, KCSL regularly counsels farmers on best practices to ensure profitable yields. Date palms start yielding fruit from the third year onwards, peak at around seven years and are fruit-bearing for up to 50-60 years. The Kutchi *kharek* is now marketed across India and also exported. **What barely fetched Rs. 5–10 per kg, now fetches Rs. 100–150 per kg, a hundred-fold profit!**

Kalyanjibhai Gala is all praise for the local women.

"The Kutchi *kharek,* like Kutchi embroidery, is a skilled domain where women score over men. The women's power of patient observation is as much the recipe for success as the meticulous protocol established by the scientific team to develop uniform, disease free, genetically uniform plants of the most desirable varieties.

"The skill of our women has been recognised and appreciated by countless visitors to our lab. These are local women with limited educational qualifications, but they have the right temperament required for the punctilious and arduous protocol of raising plants from offshoots. With a thorough training, they are able to take on the task of skilled technicians. They have been taught to identify unhealthy plants, right at the onset of infection, whether it is disease, pests or pathogens."

When we asked her to describe their work, Khusbu Savsani says, "If someone saw us, they would wonder what we were doing. We seem to be just staring at the test tube as we slowly swirl it around. Actually, we feel like 'doctors' when we don our aprons, caps and masks and sterilise ourselves for our operation. Our job is to do a timely diagnosis: identify fungus, bacteria and virus that may be infecting the tissue culture plant. Since we watch them from birth, so to say, small baby plants called 'callus', till they move out of the lab in their journey into the real world, we get attached to each plant. To the casual visitor, they may all look the same. For us, each one is unique."

Bhavnaben Parmar jumps in with a mischievous grin. "Men can't sit crossed-legged for hours on a cold hard floor like we women can. We have the endurance to concentrate on the task, without distraction, without indulging in chit chat or gossip. We are falsely maligned as being talkative. And we don't need *bidi* breaks!"

"You know," she adds with a giggle. "We limit our intake of water on the job. A 'bio-break', a visit to the washroom, can be cumbersome. We have to wash and disinfect ourselves every time we go out."

The date palm journey, from the fringes of a sterile lab to the hustle and bustle of an ever-demanding world market, is the story of an astringent-dry *kharek*'s transformation into a sweet fruit.

Next time you bite into a sweet crunchy red or yellow *kharek* from Kutch, remember that when an entrepreneurial brain combines with a social worker's heart, a real-life fairy tale is born.

When the Grass is Not Green

Approaches to Disappearing Grasslands, Animal Husbandry and Milk

Animal husbandry, in Kutch, was 'a purse with many holes'. As the animal rearers said, "You plant much, but you harvest little".

For 500 years or more, Kutch has been home to pastoral communities, the Maldharis, who keep buffaloes and cows, and graze their herds across the expanse of the land.

In April 1999, *Down to Earth* magazine carried a story with a provocative title, 'The Milk that Ate the Grass'. Degradation of grasslands is a country-wide phenomenon. As the conflicting demands of people and cattle compete for land, the grasslands will continue to be razed. Across the country, village common lands that harboured grasslands earlier are being put to other uses.

What happens to your livelihood when your grazing land dries up? How do those deeply dependant on a natural-resource based economy survive when the traditional village '*gauchars*' are privatised through the chimera of development, market invasion and the lure of easy cash in connivance with the local power brokers?

Animal rearers of Kutch had no choice but to buy fodder at inflated costs. They lost precious time travelling across villages to procure cattle feed. This further added to the costs. "It's a daily loss. We recuperate only when a calf is born and it starts giving milk, which maybe two years or even longer."

Fodder was not the only thorn that bled the Maldharis. Poor veterinary services, limited knowledge of best practices and increasing climate variability added to the vicious circle. Poor yields and insufficient returns led to a complex cycle of 'overstocking' of cattle as an insurance mechanism (like the large families that were seen as an answer to infant mortality) and migration as a coping strategy.

When the organised dairy business started in 2007–08, an era of dairy gradually became a sustainable source of sustenance again. Vivekanand Research and Training Institute (VRTI) played a significant role in bringing Mother Diary to Kutch. This was followed by Sarhad Dairy. Cattle owners started getting a good price for their milk. Migration for fodder was restricted to a great extent. VRTI has facilitated the establishment of 185 milk collection centres that service 4,257 cattle owners. The average milk collection through these centres is 43,000 litres/day.

The local on-call doctors, a woman para-vet at work.

Fodder banks to leverage price advantage through bulk buying.

In Abdasa and Lakhpat in Kutch

Over the past 25 years, VRTI has focused on critical links to strengthen animal husbandry in the underdeveloped talukas of Abdasa and Lakhpat. This has included fodder security through cultivation of grasses and millet and the development of village cattle-feed centres and fodder banks to leverage price advantage through bulk buying. Affordable veterinary services were made available to far-flung remote villages by 'local experts', barefoot veterinary doctors. VRTI designed a training programme to develop a local cadre of para-vets to administer first aid to cattle, vaccinate animals, provide de-worming drugs, conduct small surgeries, carry out artificial insemination and counsel animal rearers regarding best practices. A new profession emerged and services 'just a call away' were developed. Animal health insurance at the people's doorstep in the remote villages of the region was another breakthrough in the basket of interventions to strengthen backward and forward linkages.

But was this enough? Were the established systems and services self-sustaining?

VRTI strongly believes that developing community resources and mechanisms to tackle local problems is the only long-term approach that can sustain development initiatives in a region. The fulcrum of local management, patiently nurtured by VRTI over the past eight years, has emerged as the VIRAT Rural Agro Producer Company Ltd. Local farmers and cattle rearers are members of the producer company and managed by local leadership.

In the Banni Grasslands

As in other parts of Kutch, the protected arid grasslands of Banni on the southern edge of the desert of the Rann of Kutch, are also under tremendous pressure from grazing and change in land use patterns. As the forest is protected, people do not have access to agricultural land. Animal husbandry is the mainstay in this natural pasture land; the region is populated by more cattle than people, and is famed for its Banni buffalos and Kankarej cows.

The hardy Banni bufffalo. The Maldharis never tie their animals, even while milking.

As Banni experiences cyclic droughts, livelihood security and survival of animals is in frequent danger. During the last decade the Shroffs Foundation Trust, SFT, has been working in the Banni region. SFT motivated the cattle owners to regularise the open grazing systems by dividing the available grasslands in seasons and months for conservation and utilisation of fodder. This has helped in availability of grass for 10 months of the year. SFT supported cattle owners to counter the fodder deficit in times of drought.

Because of vastness of the region and frequent monsoon failures, the district dairy was unsuccessful. The failure pushed cattle owners to become dependent on private sectors for marketing their milk. Fortunately, since the last 10 years, the region has experienced about seven to eight years of good monsoon. Consequently, the potential of cattle rearing is again promising.

SFT anticipated the positive effects of climate change and started interventions such as education and awareness on scientific animal husbandry, providing healthcare service and linking the cattle owners with government programmes. Considering the enabling situations for dairy development, NDDB initiated the revival process of the Kutch dairy. SFT responded to these initiatives and started organising the cattle owners to link them with the collection centres of Kutch dairy.

The famous Banni buffalo is known for its superior germplasm, its milk productivity, its ability to survive in extreme conditions, apart from its looks. It can cover long distances during drought and water scarcity and is disease resistant.

The Maldharis keep their buffalos in their personal vada (enclosures) in the villages and never tie their animals, even while milking.

In 2010, the Banni buffalo was recognised as a distinct breed of buffalo in the country. It is the first breed to be recognised through efforts of the community. Banni buffaloes yield, on an average, 2,857.2 kg milk in a lactation with 6.65 per cent fat. The lactation yield ranges from 1,095 kg to 6,054 kg.

Vivekanand Research and Training Institute (VRTI) played a significant role in bringing Mother Dairy to Kutch.

SFT facilitated the installation of three milk collection centres and linked about 450 cattle owners to these centres. These three centres collect an average of 12,000 litres of milk daily. The Maldharis have started earning Rs. 5–6 more per litre.

The availability of veterinary services was the major issue in Banni area; SFT established the services in the area catering to the needs of about 35 villages. Strong linkages with government were established for vaccination and medical camps.

In Chhota Udepur

In Chhota Udepur, the story was different. Animal husbandry was introduced as a complementary source of income to the local populace. Though the tribal people kept cattle, mainly scrub animals (an animal of inferior breeding), they never saw them as a source of livelihood. Establishing dairy as livelihood was a monumental task. Investment in milk collection and chilling centres was not considered feasible, as not enough milk was being produced in the region. The Shroffs Foundation Trust had to start from scratch. Today from *zero*, dairy has become a *hero*, with women actors playing a pivotal role. First things first, Bharvads (the cowherds) were called to teach them how to milk milch animals properly. Other links in the chain were established such as bank loans and subsidies to buy animals, training in best practices and doorstep veterinary services. The final victory came when Chhota Udepur became a halt on the dairy route. Thirteen local dairy cooperatives were and are being efficiently managed by women.

Initiating a dairy revolution in the tribal belt of Chhota Udepur.

Green fodder for their cattle, Chhota Udepur.

The grass is no longer greener only on the other side.

Can a local menace be an answer?

The wild spread of *Prosopisjuli flora*, or *gando baval* (crazy babul tree), as it is locally known, has been devastating. Fiercely invasive, hated, *gando baval* is everywhere.

The seeds within its pods can be a good source of nutrition for the cattle. Free ranging animals can eat pods directly from the tree. However, due to the sharpness of the pods, cattle would not touch it. A solution was developed by the VRTI team to use the pods as an ingredient to prepare cattle feed. The result? A locally produced, reasonably priced cattle feed for the local cattle.

Local farmers' federations now produce a nutrient-rich cattle feed made from the pods of *gando baval* and other local ingredients.

The useless was made useful!

The 100-Day Race

Operation Roha: From a Barren Plot to PCl3

At Excel, C.C. had set the tone for looking forward to challenges. A new challenge engendered that feeling of exhilaration that happens when the bar is raised to create something new or to achieve a higher standard. Taking on challenges reinforced Excel's reputation within the chemical industry, for doing what others could not.

But what Bayer was asking for in early 1975 seemed almost impossible.

Excel's Amboli site had a plant to manufacture PCl3 (Phosphorus Trichloride). It was a small plant that could produce about 1 tonne a day, and the main client was Bayer. PCl3 was used by them as an intermediate in the manufacture of a pesticide. Suddenly, Bayer found that their requirement was going to double or triple within just three months. Could Excel meet that jump in demand within that time?

From a barren plot to producing PCl3.

For Excel, it was not a question of just producing more, faster, but of finding a completely new site. Amboli's capacity was limited. Excel would need a site that was bigger, put up the plant, get the necessary utilities, water supply, power, people, permissions, and so much more. But Govindjibhai had given his word; the challenge had been accepted. It was going to be a chase!

At Roha, 125 km outside Mumbai, the MIDC was developing a chemical zone, so Excel chose a 25 acre plot here and the *bhumi pujan* ceremony was fixed for 7 February 1975. The top representative of Bayer came, saw the bare site and was in complete disbelief. His only consolation before he left was the assurance that both Govindjibhai and Kaka gave him.

Immediately after the *pujan*, they talked to the company colleagues outlining the tasks ahead and the urgency. No time was lost. A generator was installed until power could become available, and the excavation for the foundation was begun.

From a barren plot to PCl3.

In 1975, completion of the PCL3 plant at Roha in 100 days.

The team was headed by Atulbhai Shroff and consisted of Bahadurbhai Gandhi, Suresh Ogale, Shankarbhai and Chandraketu Mehta as the core members, and each member including the extended team worked tirelessly, with dedication, often through nights.

The difficulty of this race was compounded by the fact that Roha was two-and-a-half hours away from Mumbai, from where almost every requirement had to be brought, and the jeep sped back and forth every day to keep supplies going. When the jeep developed problems, Sajnu, one of the workers, pushed it 2 km to a garage even though he had a fever. Supplies could not be delayed!

Local people were hired and trained. The team conferred with local doctors regarding treatment that needed to be given in case of chemical accidents. Permissions needed were identified, documents prepared and compliances were met. The plant began to take shape.

On the 110th day, Excel called Bayer to say their material was ready and they could collect it. Bayer's representatives were incredulous. How could Excel have managed this task so quickly? They came, saw the plant working, collected the material, and only then were they convinced.

However, from Excel's point of view, they were 10 days late!

C.A. Mehta talks about the challenges they raced to meet. Although all the statutory requirements were met, they had to obtain permission from the explosives department at Nagpur, for storage of furnace oil. The district collector there could not issue the no-objection certificate because the Class III and Class IV workers were on strike and no one could type the letter. C.A. Mehta immediately offered to type it himself. The collector helpfully agreed, dictated the letter, signed it and gave it to Mehta. It was duly submitted to the police.

Besides this, when all the documents for the MSEB were ready to be submitted and signed by the MSEB official at 3.00 p.m. in Mumbai the next afternoon, the team found that the routing for the electrical line was not correct and would have to be revised. C.A. Mehta hurried off to Roha to the MSEB office at 7.00 a.m. the next morning. The engineer concerned kindly made the changes, and Mehta charged back to Mumbai where his seniors were waiting for him at the MSEB office there.

They made the deadline, and the documents were signed.

There are always different ways of looking at a situation. The 100 days were overshot by 10 days. For anyone, especially the representatives of Bayer, even a brief idea of all the challenges involved made the setting up of the Roha plant along with its maiden production of PCl3 nothing short of a miracle. For Excel, however, those 10 days spelt a delay. But there is an overwhelming sigh of satisfaction that such a feat could have been achieved, and *that* is what really counts.

Playing Chess Today

An Ear to the Ground in the Pharma Space: Teneligliptin

Chess is a game that's played all over the world now, not only on table tops in people's homes or in clubs, but also in corporate board rooms. Each player needs to have patience and the knowledge of intricate rules. Moves and countermoves need to be made strategically, and the strengths of each player keenly assessed, with a view to win. Today, in companies that play their own chess games, skill and speed are significant elements.

You can make your moves and move ahead on the board, but one eye is constantly looking at the other player's possible moves. Your competition has strategies too. Sometimes, it's you ahead, sometimes another player. There is always an element of chance along with the skill and speed, but one must rely on the latter two, especially when venturing into a new technology, as Excel was doing, when it forayed into the pharma space.

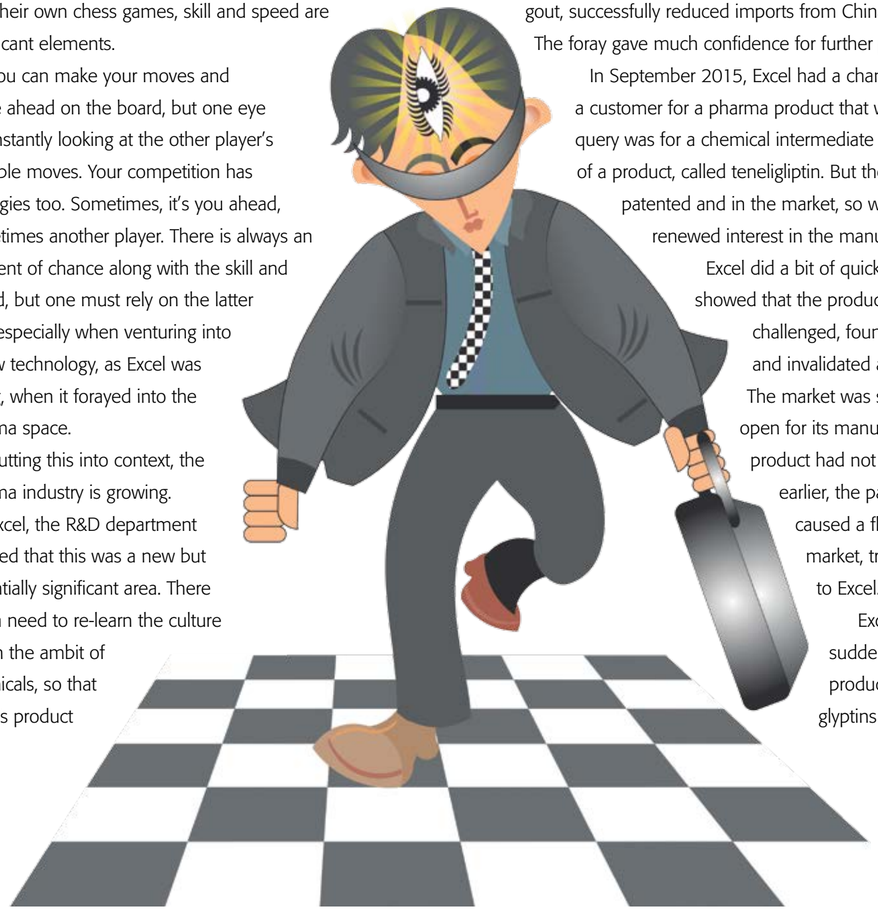
Putting this into context, the pharma industry is growing. For Excel, the R&D department showed that this was a new but potentially significant area. There was a need to re-learn the culture within the ambit of chemicals, so that Excel's product mix focused on a range of intermediate molecules that leveraged their core strength of backward integration. Again, the nationalistic aim was clear: to minimise the industry's dependence on imported intermediates by emerging as a solid and reliable domestic sourcing partner for their clients.

Febuxostat, an API used in drugs helpful in the treatment of gout, successfully reduced imports from China, in around 2012–13. The foray gave much confidence for further pursuits in pharma.

In September 2015, Excel had a chance enquiry from a customer for a pharma product that was patented. The query was for a chemical intermediate in the manufacture of a product, called teneligliptin. But the product was already patented and in the market, so why was there a renewed interest in the manufacture of this?

Excel did a bit of quick research. The results showed that the product's patent had been challenged, found to have no novelty, and invalidated a few months earlier. The market was suddenly thrown open for its manufacture. Although this product had not been on Excel's radar earlier, the patent's invalidation caused a flurry of interest in the market, triggering this query to Excel.

Excel's attention was suddenly directed to this product. The basket of glyptins was a new class of molecules, used in the treatment of diabetes mellitus. The incentive to make this product was definitely stirred; at the same time, it would take a lot to do this. The customer who would be buying from Excel, had to activate the entire chain of distributors, the medical marketing force, promotional activities with doctors, explaining the drug's benefits. Although that front end could be galvanised into action, the product's backward chain had not been developed; the supply chain was not established. Two intermediates would be needed for the final product. More research showed that there were no suppliers for these in India.



In the game of corporate chess, one eye is constantly looking at the other player's possible moves: Teneligliptin and the 360-degree lookout.

Here was a gap that Excel could fill, but it had to be done quickly. Could Excel move fast enough?

In a global environment of increasing transparency, it is possible to see import data figures. Excel gathered relevant information. Market surveys were conducted. Excel found that there was an increased market activity for the import of the intermediates in just the previous few weeks. This meant that there was definite market interest in the product and competitors were moving in!

In November 2015, Excel entered the race, slightly ahead of the game. The competition had started, but Excel would need to monitor their own speed of production, as well as their competitors' progress.

Ravi Shroff recalls the process: "Two intermediates are required to make teneligliptin. One is a three-step process, the other is a four-step process. The options were to build up the product from the starting point, or begin the race from in-between the process and take it to the final product. Most companies do the latter, since building it up from A to Z means slowing down the race."

So, at Excel, all decks were cleared, and a dedicated team was put together. Strict targets were set, and a new, tight schedule created. The samples would have to be delivered by March 2016.

It was a tricky situation and needed quick research and hard decisions.

Was it a bit like Kantisen Shroff putting people together for three days in a room so that they could brainstorm and come up with a solution?

Ravi laughs at the question. "Yes, except we did that over three months! Our engagement and activity was 24x7. We would have meetings whenever required; there was no time barrier. If my sourcing person was looking for a new source for a raw material, and if he got an update in the evening, he would tell me the same evening without waiting. And then we would have a meeting the next morning with the latest information, to decide what we had to do next, take a decision on the spot, and change whatever was required."

In the process, Excel went through two iterations of the process. They developed samples from the first process but had to change track to a more efficient process, reducing costs. All this happened within February 2016. It was more than an intense 24x7. It was a 360-degree lookout too. The route, time factor and costs had to be well synchronised. It also needed constant monitoring of the changing market and the competition. Finally, it all paid off.

Excel did more than just keep their promise to the customer. They were ahead in their delivery of the sample by a month; February instead of March 2016. Constantly working very closely with the customer and his needs, and giving him the comfort of frequent communication, they reworked their timeframes and delivered the final intermediates before the committed time. It was a special achievement for Excel, because the pharma space was relatively new for them.

Today's corporate chess involves taking risks, but these risks have to be calculated, carefully calibrated ones. As in the game, the stakes can be high. Today, technology affords us the sophisticated tools that we need to make this possible, but as in the past, it's the positive team spirit that sees us through.

Beating the Clock

M-DIPA and the 45-day Challenge

Walk around any city today, and you can predictably watch children and adults on their handheld devices. Most of these offer colourful digital games that test the players' skill to manage multiple elements to achieve a goal while the clock ticks relentlessly. Taking on corporate challenges is often exactly like this, except that it's all happening in the real world, and you can't hit the re-start button!

For Anshul Specialty Molecules Pvt. Ltd, (ASMPL) the name of the game is, *don't wait for tomorrow*. In its 75th year, the team at Excel beat the deadline in the manufacture of intermediates for teneligliptin, and they did it again soon after with other products. At the core of this ability to develop products quickly is the dedicated effort, the pulling together of all those involved in the 'game', just as it is with other companies.

Another challenge came to ASMPL recently.

ASMPL had entered into a non-disclosure agreement with a chemical company for the development and supply of specialty chemicals for use in polymer and coating applications. When they sent preliminary information on certain products, ASMPL's R&D team established a process for these.

The team had demonstrated its capabilities and was earning a reputation for reliability, so it was natural for the chemical company to approach Anshul again. This time, the product was m-DIPA, which has application in polymers. They were looking for the development and supply of a trial quantity. The enquiry came in July.

Now, this product was required by a prominent customer, and they had a very stiff time line requirement, since their trial slot was available only in the second week of September 2016. The next slot would be available well after one year. The deadline was clearly and inevitably set. The ASMPL team, conscious of the importance of receiving new business, accepted the challenge and the contract was signed.

A quick review of logistics revealed that ASMPL had just 45 days to establish the process on bench scale, and then scale up to pilot and then to the plant. The client and the competitor were watching ASMPL's moves keenly. What built up the pressure on the team was that the end customer seriously doubted the feasibility of this undertaking.

Even before they started, ASMPL's very first challenge was that the initial technical information they needed was available only in the form of some patents in the public domain; it would need somehow to be supplemented and extended.

High-temperature reaction would be involved. Moreover, they had to maintain the impurity profile, as a purer product was not desired. To top it all, the finished product is highly viscous in nature. Fortunately, there was a silver lining. The chemical company agreed to reimburse the development cost.

If you want to finish projects on time, it's easier if you set a series of intermediate deadlines. This way, the results usually reflect a higher quality too. However, one can't always bank on a string of good luck.

Before ASMPL entered this metaphorical jungle, the team made an initial review of the process, leading to a well-defined activity chart. Every single day was going to be vital, and every hour had to be productive. The planning included prioritisation, purchase, production, maintenance, safety reviews, training and quick decision-making.

The team worked quickly, but kept an eye out for unexpected developments. And of course, such developments did come their way!

Right at the start, the supply of a key starting material was held up by a week. To cut a precious swathe through time delays, ASMPL's purchase team bought one kg from the local market to expedite the laboratory development. The R&D team worked three shifts instead of two, while the experiment data was daily analysed by both the team and the chemical company. Subsequent experiments happened in quick succession.

So far, so good. Everyone understood the cruciality of timelines and quick action. Once, the maintenance team did an all-out online search and procured a key piece of equipment within three days, since that was essential for handling viscous slurries. On another occasion, a part of the team leapfrogged on time by designing labels well in advance. Two rounds of the process-safety review were conducted as the process developed.

Halfway through… and always, an eye on the clock.

Once the process was 'frozen', the standard operating procedures (SOP) were prepared in Marathi and training was given to the plant operators concerned. On the shop floor, the production team ensured the availability of raw materials well in advance.

Many unexpected issues did crop up during the actual production but were swiftly winnowed out by the team.

Finally, the deadline circled on the calendar was met!

Looking back at the situation with the luxury of hindsight and achievement, what did the stakeholders conclude?

Surely, the first thought was that the project was successful because of the team taking ownership of the project. This one single factor brought about close coordination, brainstorming and the use of experience to cut short processes. Moreover, the team acknowledged the need for new products for the company's growth.

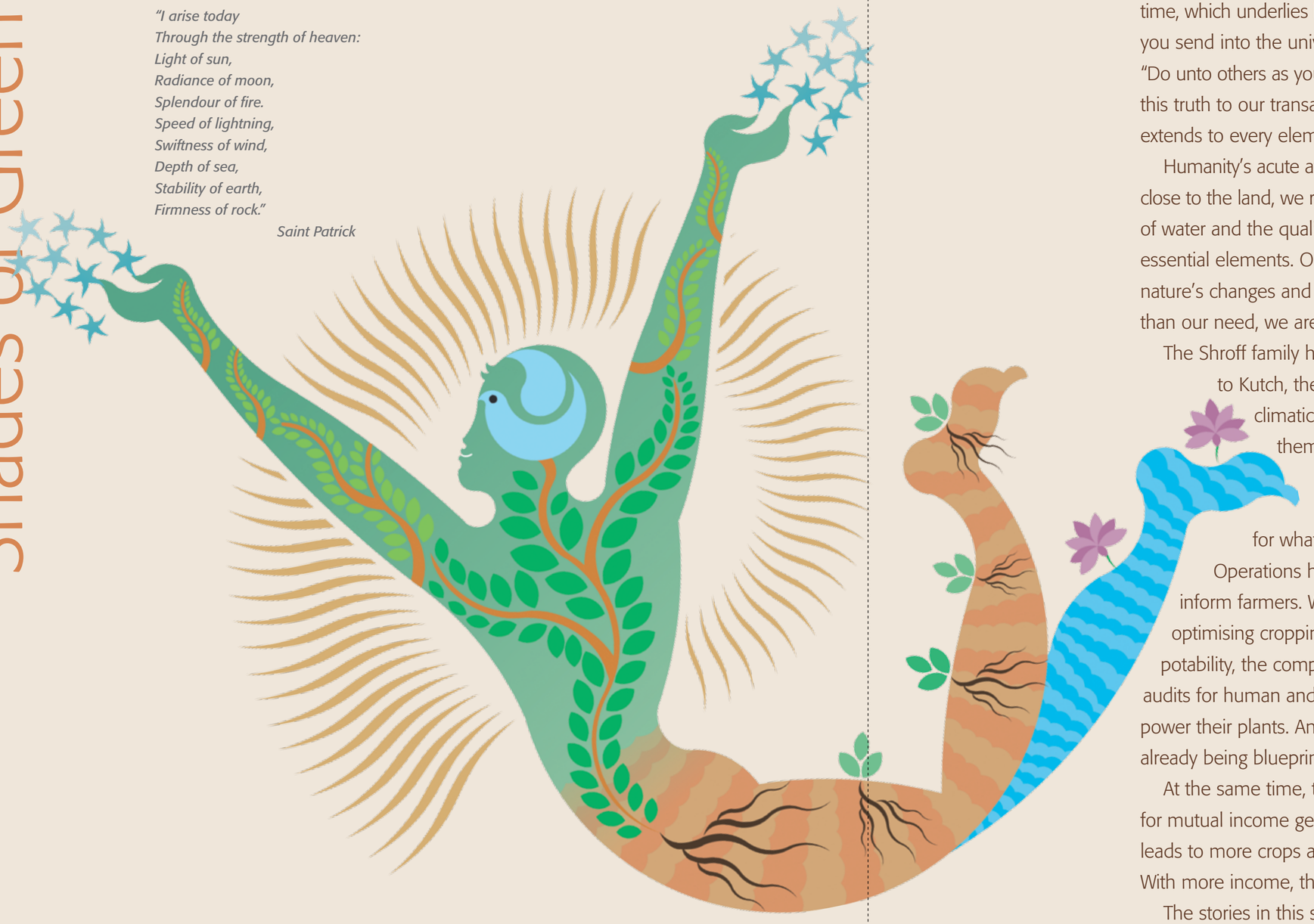
The end customer's watchful eyes had seen it all: the complexities, the intricacies, the success. Is it any wonder, then, that it has now put forward an inquiry to ASMPL for a new product, with even more built-in challenges?

Halfway through to achieving our goals…
and always, an eye on the clock. M-DIPA in 45 days.

Shades of Green

"I arise today
Through the strength of heaven:
Light of sun,
Radiance of moon,
Splendour of fire.
Speed of lightning,
Swiftness of wind,
Depth of sea,
Stability of earth,
Firmness of rock."

Saint Patrick



There is a truism even older than our scriptures, as old as the beginning of time, which underlies humanity's connection with all forms of nature. "Whatever you send into the universe, you get back." In the Bible, it is expressed similarly, "Do unto others as you would have others do unto you." Today, we tend to limit this truth to our transactions with human beings, forgetting that its application extends to every element of the planet we inhabit.

Humanity's acute awareness of the environment used to be instinctive. Living close to the land, we read the skies, the wind, rainfall patterns, the characteristics of water and the quality of the soil, because our living depended on these essential elements. Our festivals, prayers, celebrations and fasts paralleled nature's changes and paid her homage. Today, in answering our greed rather than our need, we are reaping the fate of an endangered planet.

The Shroff family had imbibed this truth through their umbilical connection to Kutch, their ancestral land. Tackling the barren land, scarce water, climatic extremes and recurring natural calamities had taught them many life skills.

Kaka sums it all up: "Be a contributor, not a consumer." This answers why CSR is just a recently created label for what the Shroff family has been doing for decades.

Operations have been set up to watch climatic conditions and inform farmers. Water harvesting and interventions bring relief to people, optimising cropping patterns. Waste is composted, effluents treated to potability, the company's chemical plants are voluntarily subjected to audits for human and environmental safety. Renewable forms of energy power their plants. And a new vision for reversing the carbon footprint is already being blueprinted.

At the same time, the Kutchi entrepreneurial spirit includes opportunities for mutual income generation. Compost is profitably sold, water harvesting leads to more crops and markets, seaweed harvesting is potentially profitable. With more income, there are greater opportunities for realigning with nature.

The stories in this section expand on Excel's conviction that the environment is also their family.

A First in Responsible Care

Signing up for Voluntary Self-Regulation and Audits, for Environment Health and Safety

Take a vote, and one would have to admit that the chemical industry tops the list of the most unpopular industries, globally. And yet we depend on chemicals from the moment we brush our teeth till we switch on the mosquito repellent at night. The reason this industry is disliked became evident over 30 years ago.

In 1984, the gas leak at Union Carbide spewed 42 tonnes of toxic methyl isocyanate gas into the air, exposing more than 50,00,00 people. Suddenly, Bhopal, became a tragic red dot on the international news map. Today, the effects of this disaster are still an unfinished story.

There was an urgent surge in the need for greater responsibility. Bhopal became the spur.

A year after the disaster, the CCPA (Canadian Chemical Producers Association) launched a movement of self-regulation in the chemical industry, which then gained worldwide momentum. It was called 'Responsible Care' (RC), a clarion call to companies to demonstrate their commitment to improve the protection of health, safety and environment.

Today, it is the Indian Chemical Council (ICC)—the apex national body representing all branches of the chemical industry in India—that is spreading the RC initiative. Vipin Doshi, adviser, ICC, outlines what it means to be an RC company.

A chemical product goes through its life cycle. Each stage of its creation is a potential hazard to man or the environment. Companies need to take precautions to cover every aspect of its production, transportation, usage and disposal.

RC involves six codes of management practice, the guiding principles of which embrace community awareness and emergency response, distribution, employee health and safety, pollution prevention, process safety and product stewardship. The codes imply that internal checks need to be put in at every stage, a process that may involve time and expense.

Fully recognising this, Ashwinbhai, Chairman, Excel Industries Ltd, was the first to sign the RC initiative in India.

Now, this calls for some contemplation.

In a developing country, with its attendant struggles, why would a company commit to RC, really? Even without it, orders would still roll in and sales would be made, so what is it really worth?

The answer is that it goes beyond. It is what lifts a company above mere commerce. It's a voluntary 'wanting-to-do-more' responsiveness, because it involves caring and ethics. It's not necessary for a chemical company to commit to RC, but the caring approach converges with that of Excel.

The Bhopal gas tragedy of 1984 triggered chemical companies all over the world to go for Responsible Care (RC), with stringent audits for human and environmental safety. Excel Industries was the first Indian chemical company to sign up for RC.

Nurturing a green cover, plant nursery at Lote.

Accidents happen, as they do in all industries; they have happened with Excel too, despite precautions. However, picking up the pieces after the accident is what matters. Of course, insurance covers the workers' plight and all legal issues are resolved, but the Shroff family reaches out with personal concern, offering all-round relief to the affected families, even employing the next of kin in an appropriate position within the company, as happened with Ms Snehal Jadhav in Excel's Lote Parshuram plant. She has been with Excel as a telephone operator for 10 years now. "This job gives me 'connections' to so many people!" she puns today.

Although a voluntary initiative, RC is a respected initiative. Merely signing up for it does not earn one the logo. Audits are conducted by members of the RC team. Does each worker have his hard hat? Special shoes? How safe is his/her exposure to chemicals? Where and how is hazardous waste disposed? Are people in the neighbourhood informed about potential hazards? Is there an emergency management process in place? These are just a few of the practices addressed.

"The focus is moving towards sustainability," says Vipinbhai, himself an RC auditor, and earlier with Excel's Roha plant. "After all, if a company can maximise the use of raw material, water and energy consumption, the benefits are all-round." It's also important to gauge the overall intent of the management, "because the policies and culture will push right through the system within the company," he adds. For example, the earlier cry in the chemical industry, "The solution to pollution is dilution!" must be replaced by environment-friendly practices today. The punishing socio-economic costs of water usage will not allow for draining chemicals away. This too has been recognised by Excel, so that various effluent treatment processes are already in place. The Common Effluent Treatment Plant facility, which is common to plants in the area, facilitates small-scale industries and helps reduce the wastewater treatment cost for individual units.

For Excel, the entire process—from committing to being an RC company to passing all audit requirements—has been a long journey, but the treasured RC logo finally graces their stationery.

The effluent treatment plant at Lote.

Vipin Doshi, adviser, Indian Chemical Council (ICC).

Wiser than the Clever Crow

Integrated Natural Resource Management

"We were just a name and a photograph in a picture frame; we were strangers to our children. Our parched fields lay fallow. The old, the infirm, and the women in our village were forever waiting. And where were we?"

Eighty-five per cent of the farmers in the villages of Mandvi district, Gandhigram and the surrounding villages, went as construction labourers to the Gulf cities, Muscat and Dubai.

"About 12–15 of us, sometimes more, shared one small ramshackle room. Even our cattle lived in better conditions. Every morning at around 6.00 a.m., a bus came to ferry us to the construction site, often 20–25 km away. We had to be up on our feet at 3.30 a.m. to cook our own food and be ready for the day.

Scarcity of water is not a recent phenomenon in semi-arid Kutch.

The race in the morning to get to the single, stinking toilet was no less than a sport. When we lost, it was out in the open. The heat was oppressive on the site and in our quarters. We returned at 7.30 p.m. We dreaded the thought of falling sick. We could not complain about our conditions to anyone. Not our family nor our employers. If we opened our mouth our employers would confiscate our cards.

"That started changing in the eighties and nineties. The check dams in and around our villages have rewritten our destiny. Our wells and ponds are brimming. Our soil has been coaxed to life again. We can harvest two to three crops a year, using scientific techniques to obtain better yields from our land. High-value crops such as the date palm, mango, papaya, chikoo, sapota and pearl millet that thrive in our saline soils and water-scarce land have made life comfortable, thanks to Vivekanand Research and Training Institute (VRTI) established in 1975." These are the reminiscences of Kesarbhai Gosar, as he ruffles the hair of his granddaughter.

"I did not witness my son's childhood. I was away in Dubai. But I am around for my granddaughter. I heard the first words she uttered. Soon, I will take her to school. I will teach her the alphabet and the multiplication tables…"

The water revolution started by VRTI in 1975 has seen a manifold multiplication. Water harvesting structures—check dams, gali plugs, nala bunds, village ponds and storage tanks constructed by VRTI and other NGOs, government agencies and the farmers themselves are common features of today's landscape, rather than the exception they were some decades ago.

VRTI facilitated the building of check dams, they focused on community participation and community management to ensure project ownership and equitable distribution of this precious resource, water. Panisamitis (water committees) were formed in each village to develop their own rules and wisdom.

"We have 'ek kanoon' in our village. We draw our share of water for irrigation through a fixed quota system that depends on the size of our land and the water storage levels." Arvindbhai, a farmer from Gandhigram proudly shares the success story of his village. "The thirsty crow was clever, but he had to think of only one moment

Development initiatives commence with a focus on community participation to augment local natural resources. This is followed by a concerted effort to strengthen productivity of land-based systems of livelihood. A bumper crop in Chhota Udepur.

Bhoomi Jal Samvardhan Puraskar awarded to VRTI in 2007 by Central Ground Water Board, Ministry of Water Resources, Government of India.

Earth Care Award for VRTI received twice, in 2011 and 2018.

Augmenting the water resources of Kutch.

of thirst in his life. We have to sustain our resources over seasons. Unity is our answer. We all, without exception, follow the guidelines laid down by our village water committee. We try to function as a mindful group, not a mindless crowd. It was not easy, but we learnt to untangle the knots and make modest sacrifices and small adjustments for the common good."

Similar developments of availability of water, better yields from the land and curtailment of migration have also been observed in Momaymora village, after the Rukmavati River Basin project took off.

Water shed development and soil conservation programmes were the first steps to empower farmers to attain food and livelihood security. The strong foundation, natural resource management and conservation enabled the Excel Group NGOs to enhance the productivity of the land through capacity building, introduction of scientific agriculture, new crops and animal husbandry interventions. Strong backward and forward linkages, the mainstay of a successful business enterprise, came naturally to all the Excel Group NGOs.

The journey has been long.

Cotton cultivation in Kutch.

From Villages to River Basins

"Villages and cities are administrative clusters, ecological units are nature's clusters. Natural resources can be managed more effectively when we plan with a bird's-eye view, rather than our customary needle's-eye view," elucidates Ashwin Shroff.

Focusing on the holistic and integrated development of the entire river basin, the Rukmavati River Basin project, as envisioned by Kantisen Shroff, took shape. The objective was to develop a long-term symbiotic relationship between the environment, climate-change mitigation, green-wealth generation, and food and livelihood security through a systematic assessment of the natural resources and manmade resources, cropping patterns, and socio-economic profile. This would improve the quality of life and the health of the environment through coordinated action.

VRTI Mandvi enthused the farmers along the Rukmavati River Basin. The Rukmavati River Basin Project has been designed to enrich the lives of farmers in 55 villages in the catchment area of the river. The farmers of these villages have been organised through the Rukmavati Agro Producers Company for better leverage through an economy of scale for procurement and market linkages.

A similar project has been initiated by the Shroffs Foundation Trust, SFT. SFT has assessed the needs of the Orsang River Basin under its 'Orsang Jal Ane Samrudhi'.

Check dam by VRTI.

Whispers from the 'Rain God'

Indian Centre for Climate and Societal Impacts Research, ICCSIR

April and May are months of waiting and watching. Farmers across India are looking for signs that will seal their fate. "This year, the *keshudo*, the flame of the forest, has bloomed early… so we started preparing the soil early."

For some farmers, it is the flowering of the *keshudo* or *garmado*, while others watch the growth of the bear plant. The position and number of the *titodi*'s eggs in the nest or the direction of the wind when the Holi pyre is lit are popular observations anxious farmers 'read' to try and gauge whether the elusive monsoon will bless them or not this season. Monsoon signs were also poetically encrypted in the age old (10th–11th century) weather couplets sung by Bhadli.

'Now-casting' helps farmers to plan their day-to-day farming activities.

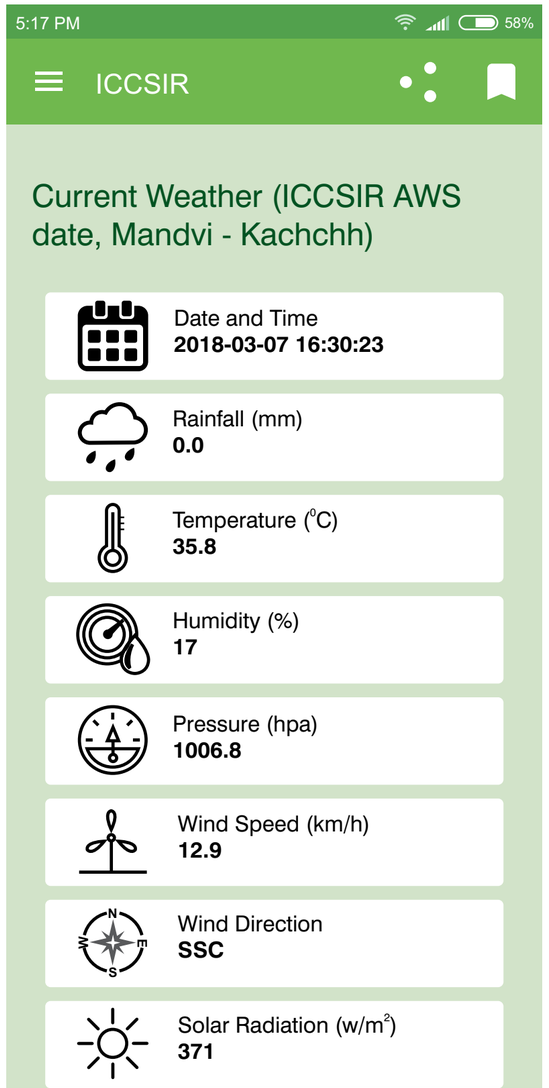
Over the centuries, farmers have developed local belief systems—part lore, part experience—and studied observations to reduce their uncertainty and their risks. But with climate change, patterns are no longer predictable, uncertainty is higher and farmers can no longer rely on traditional knowledge systems. While for the government and policymakers, the long-range weather forecast as also the prediction of monsoon at national level is important, at the local level and for individual farmers, village and block level weather forecasts, along with some specific advise, is important to plan the farming activities. This need was understood as important by Shroff group NGOs.

I see a truck coming,
carrying the dead bodies
of cows.
I see another one going, carrying green grass for
the cattle camps.
Suddenly I see,
a protruding leg of a dead cow scratching against
the grass, splashing down few blades
of grass.
My heart bleeds….
how much the poor life
would have starved?
If her lifeless leg is longing so much to touch the
grass.

Kavi Tej

(original Kutchi lines by
well-known Kutchi poet on the 1987 drought)

There's a medium sized room in VRTI, Mandvi campus, equipped with computers and powerful processors and a group of young scientists. This is the Indian Centre for Climate and Societal Impacts Research, (ICCSIR), a non-profit scientific research and applications organisation, conceived in 2008 and established under Section 8 of Indian Companies Act, 2013. The climate research centre is supported by donations from the Excel Group, Mumbai, the Mamta Group, Ahmedabad, and grants from government agencies.



"The idea was kindled when 'weather scientists' Dr Vikram and Dr Amita Mehta were invited to deliver a talk under the C.C. Shroff Memorial Lectures in 2007," D.B. Mehta, Director, ICCSIR, tells us, recalling that moment of excitement. "Ashwinbhai's ears had pricked up in anticipation of the potential of weather forecasting. If the information could be localised, the opportunity it offered farmers to plan activities and minimise risks was significant.

"ICCSIR is not a 'pure science' initiative. We focus on developing practical applications of weather and climate studies: models to accurately indicate micro-level weather patterns. This is facilitated by a network of automatic weather stations for continuous measurements of weather parameters installed for example, in the Rukmavati River Basin of Kutch."

He shares with us further possible uses of the data: "While the facility will be useful for farmers, young scientists are being trained to undertake research on monsoon variability and change, and their impacts on water resources, agriculture, fisheries and public health. In the long run, ICCSIR will develop an information system and model for a regional climate and societal impacts database that will be critical for researchers, stakeholders and policymakers and the general public. ICCSIR is also engaged in drawing up profiles of groundwater resources, soil-nutrient patterns and carbon sequestration."

Dr Rohit Srivastava of ICCSIR chimes in: "This also makes it feasible to study the impact of interventions such as our Rukmavati River Basin project scientifically. VRTI (the community extension NGO of Excel) has years of field experience and rapport with local farmers and local farming patterns and practices, which has also helped us to understand and align our studies and services to farmers' needs."

Devanshu Mehta, Director, ICCSIR elaborates on a very crucial advantage of the data collected through the Automatic Weather Station (AWS). "While 'weather forecasting' helps develop long term strategies, and 'now-casting' helps farmers to plan their day-to-day farming activities, the role of ICCSIR is not limited to forecasting or now-casting weather, but it is also a step towards building a climate resilient agriculture practice. The information collected by ICCSIR creates a road for precision inputs farming based on GIS/GPS-based information on soil fertility and water availability."

Dr Srivastava adds to this, saying: "We circulate relevant farm related information to voluntary organisations and institutions

A network of automatic weather stations for continuous measurements of weather parameters has been installed in the Rukmavati River Basin of Kutch.

working in agricultural development. They are also sent directly to farmers through WhatsApp messages and voice SMS services. Messages are sent out in Gujarati and English." He proudly shows us the messages that have been designed to aid easy communication.

Through farmer-training programmes, farmers learn how to effectively act on the advisories regarding the choice of crops for the season, and sync their regular and seasonal operations in accordance with the weather. They enable them to make decisions such as whether to undertake or withhold sowing operations, start harvesting or postpone the activity. Evaporation rates indicate how much water should be used to irrigate the field. Wind data guides activities such as spraying of plant protection and nutrition solutions, and temperature and humidity data can throw light on the onset of likely pests and diseases. The agro-met advisories would also be useful in the management of farm activities such as plugging, harrowing and hoeing, storage and transportation of produce; warning about the seasonal onset of pests and diseases; and protection of cattle in extreme weather scenarios."

As one farmer in Mandvi belt said, "If the message says that it is going to be a windy day, the 'dava' will just fly away… we don't spray our fields on such days. *Kaan mandine sambhalvu pade chhe* (We have to listen attentively). The messages are like whispers from the Rain God… blessings that come to hold our hand." There is a sense of wonder in his voice. For him, dependable weather predictions are like answers to prayers.

Forecasts Forewarn Farmers: Check Losses

Almost 2000 tribal farmers in Chhota Udepur and Jetpur Pavi talukas were able to control a loss of Rs.1,350 per acre by heeding to the forecast sent by ICCSIR. According to the ICCSIR forecast transplantation of paddy was possible only after 10th of July. Hence farmers were advised by the Shroffs Foundation Trust to delay the raising of the nurseries by at least a week.

Farmers in Mandvi and Anjar taluka have also reported benefits by heeding micro level advice such as spraying of fungicide to control PM, checking the ravage caused by fruit flies by timely application of pheromone traps, spray of pesticides as a precaution against the sucking pest and increasing the frequency of irrigation in an unprecedented heat spell in the month of March.

After the ICCSIR warning the farmers of Moti Rayan in Mandvi taluka shifted the wheat *biyaran* (seeds) from a *naliyawala makan* to a *slabwala makan*. Even a small check on losses is significant as in a region like Kutch and crops like wheat, the profit margins are negligible.

While ICCSIR forwards the weather forecasts to 250 farmers in Kutch and several organisations, governmental and non-governmental, working with farmers through regular messages, the messages are circulated widely as most farmers meet at the village dairy and share farming related information. At present about 25–30 per cent farmers heed the weather forecasts, *chokkana thayee jay chhe*, become alert, the impact of messages will definitely grow as they learn about how certain messages have helped fellow farmers.

On the Trash Trail

Cow Dung, Organic Waste Converters and MobiTrash

Traditional Wisdom to Modern Pragmatism.

"I had a new assignment, I was on a 'Trash Trail' at Kaka's bidding," said Dipeshbhai. "When Kaka is on a mission, nothing stops him. Wearing my oldest clothes, I joined the rank of scavengers in Mandvi, Kutch. This was way back in the 1980s, when the soil in Kutch was dry and non-arable. We brought in truck loads of vegetable waste from the vegetable market and deposited them in trenches and let Nature do its job. The decomposed organic waste nourished the soil and rejuvenated our pilot plot of unyielding, dry saline soil."

But waste dumps in Kutch were not the only problem.

The growing dumps of waste at almost every street corner were the concern, and cow dung was the inspiration for further experiments at Amboli. We strove to reduce the foul odour of municipal solid waste and shorten the time cycle for waste to decompose to organic manure.

Maya Gandhi recalls how microbiologist Shubhalaxmi Sampat carried waste from the canteen to the lab to experiment with microbes to accelerate the composting process. The then

Go-var (Gobar)—*go* meaning 'cow' and *var* meaning 'boon'—is how cow dung is known in many Indian languages. It indicates how much traditional Indian wisdom revered this excrement. Even the sacred texts of India, the Vedas, which condemn all forms of excrement as abominable, hail cow dung as auspicious. So much so that one finds its use in many sacred ceremonies and worship.

So, what's so special about cow dung?

Its use as a natural fertiliser is well accepted. Cow dung is used to produce biogas. In any typical Indian village, it not uncommon to find the entire floor of the house coated with some fresh cow dung paste. Cow dung mixed with lime is also used to coat the walls of houses.

Kaka realised that there was something more to this tradition of 'lipan' than beautiful patterns. What was the special quality? Cow dung has anti-bacterial properties; it is the best natural disinfectant. The tradition of applying a fresh coat of cow dung after a dead body leaves the house for 'dehdahan', or cremation, is still followed.

The MobiTrash van racing through the city of Pune. Garbage is embarrassing baggage for cities that are now overflowing with waste. MobiTrash, the 'waste warrior', simplifies waste management.

The growing dumps of waste at almost every street corner are a concern.

From large centralised dumps that were often an eyesore for citizens, Excel focused on decentralised 'desktop' solutions.

High quality compost in just 10 days. The OWC's decentralised waste management system eliminates waste dumps in landfills.

Bioculum is a key input in the Organic Waste Converting process.

The treated waste is converted to finished compost at a centralised facility.

Turning waste into green wealth.

Deputy Municipal Commissioner Khairnar saw the value of Kaka's experiments and provided land at Chincholi in Mumbai for management of city solid waste. A Public Interest Litigation filed by Almitra Patel in the Supreme Court against open dumping of municipal solid wastes led to the creation of municipal solid waste management stipulations in the year 2000. These guidelines made it imperative to find solutions which did not mar the cityscape with unhygienic dumps.

"Early experiments in the processing of solid waste at Mandvi and Mumbai led to several solutions in urban waste management. Like always, Excel's solutions are radical. This one was a *shirshaasan*, a complete reversal." Ashwin Shroff explained, "The radical twist in the Celrich process is the waste segregation order. In a reversal of a worldwide trend, we experimented with a process that did not depend on waste segregation. Kaka sought a solution that accepted people's laziness. We first compost all the kitchen/city waste and subsequently segregate it. This process respects the dignity of the people who handle the waste. The compost has the fragrance of good soil and is an excellent organic manure."

Hrishit, Ashwinbhai's son, adds, "As an outcome of these experiments, one of our largest and oldest projects is a project for the Ahmedabad Municipal Corporation established in 1999. Excel's waste management plant at Ahmedabad decomposes over 8,000 metric tonnes of solid waste annually, a number that is slated to go up to 12,000 soon. The waste management technology was also exported to Mauritius in 2010. We set up a plant to handle 300 MT of solid waste in a day."

From large centralised dumps that were often an eyesore for citizens, Excel focused on decentralised 'desktop' solutions.

Transforming ideas into effective form has been Excel's strength. An organic waste converter (OWC) was developed over 10 years ago. The 'ah!' element is that this biomechanical process converts waste within 15 minutes into an odourless, homogenised output, which becomes organic compost in just 24 hours! Think of how much compost could be created and sent to farmers to nourish vast tracts of land! However, 10 years later, when not enough OWCs had been sold commercially to justify effort and costs, another hard look at the OWC model was due.

Typically meant for housing colonies, hotels, industrial campuses and other clusters of waste generation, there was a cautious response to OWCs initially. Logistics were involved: Who would be in charge of the machine? Who would manage maintenance? Where would it be placed? Local municipalities looked askance. The OWC would require a lot of capital investment. There were too many hassles involved.

Enter Ashwinbhai's son, Ravi.

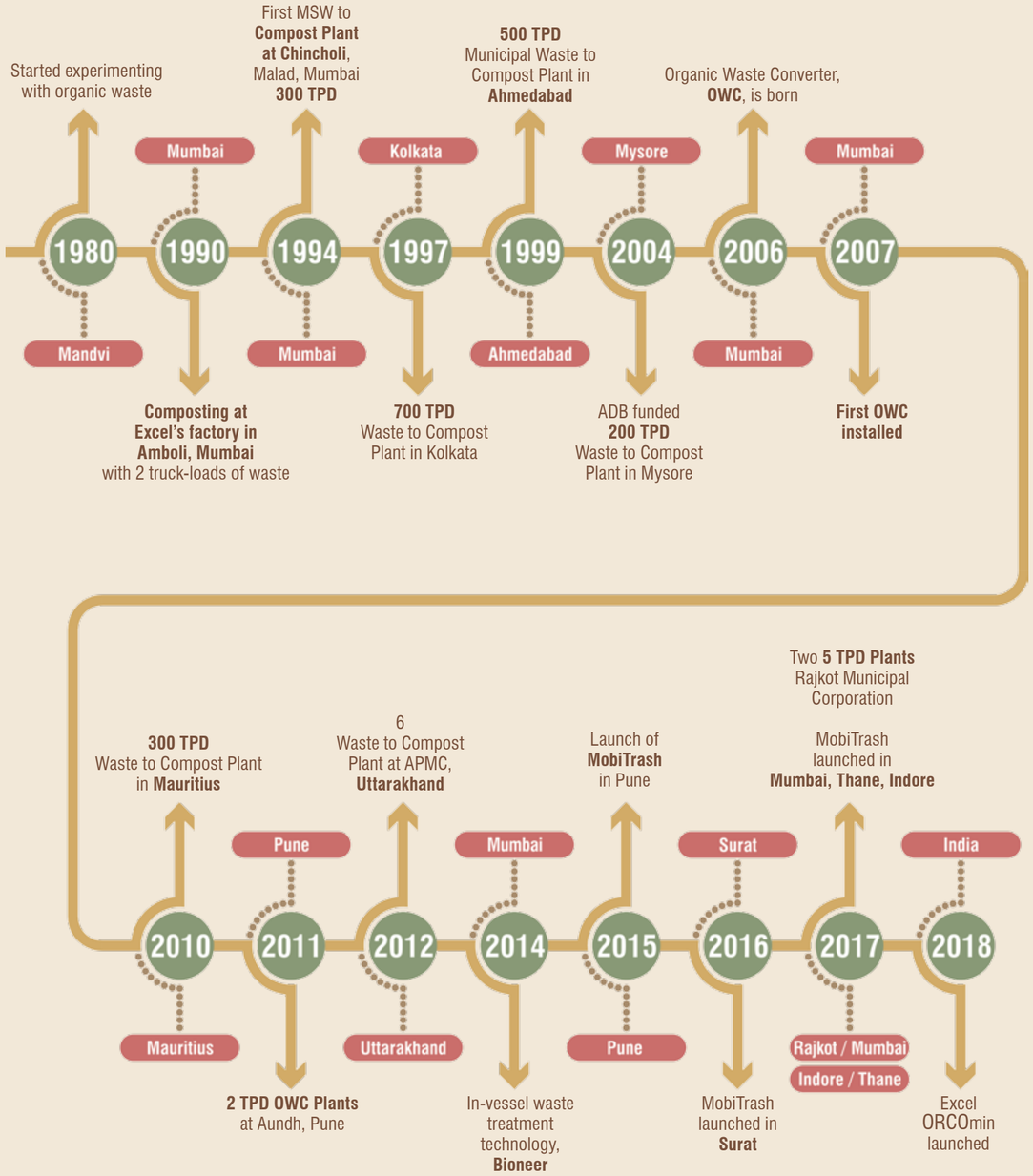
"We didn't discard our idea, but we found a new way to implement it. **In short, we converted a product (OWC) into a service (MobiTrash): composting on wheels.** It was India's first decentralised composting machine, starting at as low as 10 kilograms per day going up to a few hundred kilograms a day. MobiTrash, the 'waste warrior', simplifies waste management tremendously. It was a response to people's need for a trouble-free solution. For that, they were willing to pay a small monthly charge that covered the service."

How does MobiTrash work?

"It is, simply put, a composting machine loaded on a mobile van. It treats wet waste at the site of the waste generator: housing societies, office complexes, malls, restaurants, schools. The treated waste (raw compost) is then carted away to a centralised facility to be converted to finished compost. It is hassle-free, because there is no need to own a machine, use up valuable space, or employ people to manage the waste. The waste generator simply registers for MobiTrash by contacting us, and we initiate a free trial. If the

Curing the compost.

The Journey from Waste to Wealth



1975 Kaka inspired the VRTI team to help rejuvenate the barren, saline Mandvi campus land. The Mandvi Municipality provided City Solid Waste, rich in organic matter. A natural, in situ composting process here helped the research to reduce composting time. Organic solid waste improved productivity.

1990 Kaka guided the Amboli team to set up a microbiology lab. The result was a mechanical separation facility, and the development of DFBC/BIOCULUM: a consortium of microorganisms that improved the compost quality and the composting process, especially for the farming process, with crop-specific enrichment.

1994 Mumbai's Dy. Municipal Commissioner MCGM, Mr Khairnar, allocated some land at the Chincholi disposal site for Excel to scale up and address the challenges of Municipal Solid Waste (MSW) in Mumbai city. The beneficial impact of MSW-derived compost was demonstrated at demo plots: Malvani saline land; Aksa village, Maharashtra; Sangli agriculture land, Maharashtra; Bhavnagar Bioremediation Plot 74, Gujarat.

1994 The plague struck Surat city. Dr Almitra Patel, an Environment Policy advocate, conducted a survey to assess the impact of MSW generation in India on health, hygiene and environment, convinced of the benefits of compost derived from city solid waste.

1996 Dr Patel filed a PIL in the Supreme Court against open dumping of municipal solid waste. The court appointed a committee, including Chairman Mr Asim Burman, then Commissioner of Kolkata; Mr S R Rao, then Commissioner of Surat; Dr Almitra Patel; Mr P U Asnani, then Dy. Municipal Commissioner, Ahmedabad.

1999 The Draft Report they prepared was discussed at prominent institutions like the IIT. The MoEF (Ministry of Environment & Forests) was notified in Gazette MSW (Handling and Management) Rule 2000.

1995-2006 Excel's process of microbial-aided accelerated MSW composting has been implemented at city level. 16 MSW Composting Projects in India for capacities ranging from 100–700 tonnes per day.

2006 Excel's Organic Waste Converter was developed to address MSW Composting at the source of waste generation, with compost ready in 15 days. Capacities range from 100–200 kg per day.

2014 Bioneer, a fully automated waste converter, was introduced, with a quick conversion solution. The nation-wide Swachh Bharat Mission urged citizens to be more 'waste responsible'.

2015 MobiTrash service launched in Pune. Monthly subscribers could have a daily pick-up of waste, online service and delivery of compost. The service extended to Surat, Mumbai and Indore. MobiTrash treats 8.5 tonnes of segregated waste daily.

2016 SWM Rules were revised, recognizing the alarming waste situation, calling for immediate action.

2018 ORCOmin, an affordable, compact composter, was launched for those who had no robust composting solution facility to treat 25–100 kg of waste per day.

waste generator is happy, they sign up for our service, which costs Rs. 199 per household per month for residential societies."

How did you change a green idea to a green service?

"This idea was conceived in August 2015, and in September 2015 we did a pilot launch of MobiTrash in Pune. We began in October 2015 with our first van. Since then, we have introduced another four vans and are planning to introduce one more. We are already treating more than 1,500 kg of Pune's waste per day, effectively diverting this waste from going to the landfill. The service has also been launched in Surat, Mumbai and Indore."

Is it sustainable in the long-run? Are such environment-friendly services commercially viable?

"We firmly believe that once this service is established, it will be. So far, the response has been fantastic. Pune's citizens surprised us with their enthusiasm in accepting such a service. We offer a daily pick up of waste, online help and delivery of compost to our subscribers. During the free trial period offered to each client, we educate the participants to sort their waste so that the service runs smoothly. Stray plastic objects or similar items show up occasionally, but our technology is robust enough to handle this.

"MobiTrash continues to fine tune its operations, with the objective of expanding over time, across the country.. We also run terrace farming as a business area."

What should conscientious citizens do?

"Let's minimise our waste, treat it responsibly and also think of how it can be recycled. Segregate it. Our waste is our own responsibility, and that message has to spread. MobiTrash and other waste warriors will come along to help you make your future a cleaner place."

Like Princess Scheherazade's one thousand stories in *The Arabian Nights*, this story, too, flows into its next episode. "Compost banao, compost apnao," says Amitabh Bachchan in an advertisement produced by the Swachh Bharat Mission. There are several ads promoting composting in various building complexes, and these ads pair the august actor with Excel's OWC. You can watch these ads on YouTube.

"As Swachh Bharat became a popular movement, Excel realised that citizens wanted a cleaner India and were willing to take this up as a serious social issue," says Hrishit.

The seed of Gandhiji's concern with waste, kept alive in Excel, carries on with greater intensity and urgency with the new government. Excel's decades of persistent experimentation and involvement with waste has been vindicated by the common sense that with rising populations and consumerism, waste disposal would be a relevant concern.

"Today, composting has become a national mission, involving a concerted effort by several ministries, including the Ministries of Fertilisers, Agriculture and Urban Development. There is a move to increase the capacity range of composting machines and also bring down their cost. Our customers include Infosys, Trident, Oberoi, TCS, RBI and many others that have the Excel machine."

The Swachh Bharat Mission is a far-reaching and significant one. In 2016, new municipal solid-waste management regulations were brought in.

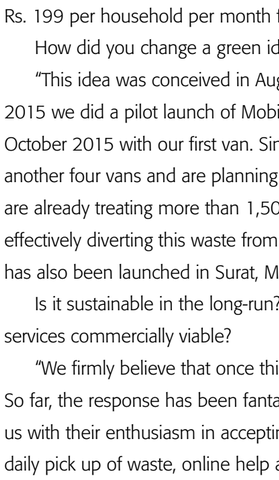
"To comply with the new rules, we see demand from PSUs, government housing colonies and others, in more and more tier-three cities."

Competitors?

"Yes, there are half a dozen or so competitors, but we have a history; ours is the established company. We also wish to bring decentralised solutions closer to people so that waste need not all go to the centralised pool. Current solutions take care of the acidity as well as the smell. This means we are looking at producing machines that cover differing capacities and a price range. We are also exploring RDF—refuse-derived fuel—which takes combustible waste to be used as fuel. The key ideas are: it's accessible to a wider spectrum of people, it's more affordable, and it has robust technology."

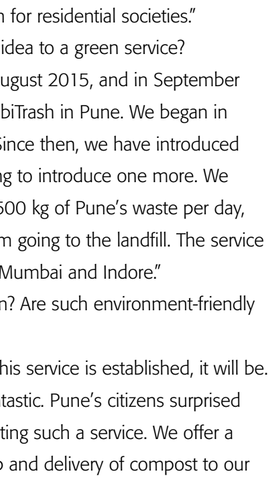
The most recent addition is the ORCOmin. For those who generate about 25–100 kg of waste a day and don't have a composting facility, this is the answer.

Waste management is a fascinating journey that doesn't end. Chennai? Udaipur? Agartala? Anywhere in the country! And if you have any questions, there is also a dedicated Swachh helpline! Just pick up the phone and dial 1969 and ask your question. You can find out more and do your bit for the Swachh Bharat Mission…



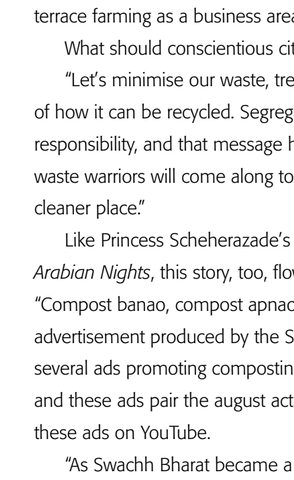
Segregate

Customer segregates and keeps the wet waste collected at a designated spot.



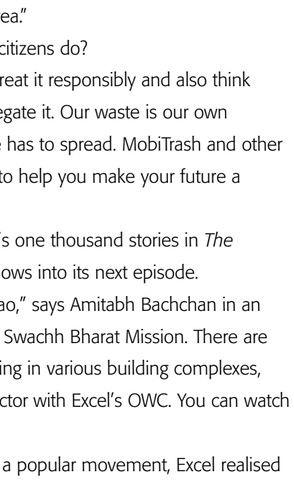
On-site Treatment

MobiTrash operators treat the segregated wet waste inside the van in about 15-45 minutes.



Raw Compost

The waste is converted to an innocuous 'raw compost' post on-site primary treatment.



Stored for Curing

Raw compost is stored inside the van and taken to the secondary site for a 10 day curing.

Starting with Pune, MobiTrash now offers services in Surat, Indore and Pune.

Getting Past the 'Ick' and the 'Yuck'

Wastewater becomes NEWater

"OK, ok, I'm all about recycling and reducing waste generation, but this is just gross. I mean, I know it's safe and clean. Rationally. And if you give me recycled toilet water without telling me that's what it is, I would probably drink it and not give it a second thought… But if I know, or even think that's what it is, there's no way I would drink it." That would be the gist of our general reaction if we are offered a glass of 'cleaned up' sewage water, however crystal clear, odourless and pure the water is.

There is a major hurdle to 'toilet-to-tap', and it has nothing to do with the technology involved. It's the struggle against the 'ick factor': convincing the public that it's safe to drink treated sewage and that it doesn't taste gross.

Delhi Chief Minister Arvind Kejriwal sought to break the taboo around the use of treated sewage and drank a glass of cleaned-up waste water at a pilot centre. After that, a momentum to replicate the technology has started. Projects such as the Transchem Agrictech installed Biofilter Sewage Treatment Plant at Delhi Jal Board are paving the way for other municipalities to get past the 'yuck'. A first, in India, the biofilter plant at Keshopur in North Delhi was installed in July 2015. The plant filters around 3,500 litres of sewage every hour, providing around 2,500 litres of drinking water every hour. As Atul Shroff summed it up, "Singapore's done it, and so has Orange County, USA. Even astronauts drink recycled wastewater! And it's become a reality in India. India has joined the elite toilet-to-tap club of the world. Others use it for non-potable functions such as landscape irrigation. If we want to continue flushing, then we need to be pragmatic about what we are drinking," Atulbhai says with a wry smile.

The cleaned-up water has been continuously lab tested and matches the WHO standards for drinking water. The project addresses the spiralling demand for potable water. It will reduce clean-up budgets and revive the Yamuna.

"Wastewater becomes 'NEWater'," Rakhee Gupta, Director of Transchem Agritech, pronounces with justifiable pride, referring to what Transchem has achieved. Then, she tells us about the toilet-to-tap technology pioneered by them. "After screening, raw sewage is pumped into a multilayered biofilter comprising earthworms, processed organic media, selective microbial culture, and inorganic media. The water at this stage is fit for horticulture purposes. The treated water is then pumped into a membrane system that makes 85 per cent of the entire water good enough to drink. Even the reject 15 per cent water is fit for horticultural use. The plant can also run on solar power. This is possible because this is a low-power consumption technology."

Reflecting on the 10-year toilet-to-tap journey, Atulbhai says with a mischievous twinkle, "It all started with a 'why not' in my garden. We had been composting dung through the vermiculture process. I was watching the shiny wriggling earthworms and marvelling at their digestive system—a long 'head to tail' system—and pondered about this digestive length. Perhaps it gave these nightcrawlers the amazing ability to convert waste to such a nutrient rich product. I was suddenly struck by an idea, or call it my 'eureka' moment. For the next few days, I asked myself again and again, if they can digest cow dung, why not human 'dung'? Kaka had been telling us for the past few years, "Our sewage lines are the only perennial rivers we now have". Our rivers have run dry, rainfall is declining and our aquifers are depleting. If we could develop a technology using earthworms to clean up water, we would solve a very pressing problem in nature's gentle way. A menace would become a much sought-after resource: clean water.

Wastewater becomes potable NEWater.

"So, we began our experiments using earthworms, processed organic media and selective microbial cultures. We read what we could lay our hands on, visited biofilter plants around the world and collaborated with scientists till we got it right. The pilot plant at our plant site was just the beginning.

"We wanted our treated effluent water to be consistent in quality with effluent water that was processed in the conventional way. We struggled. The area required by the conventional treatment plant was large and power consumption was high. With our biofilter, it has gone down from 110 HP to 10 HP, and results are consistent. To date, we have installed 25 plants, the initial one at our Transpek plant, including one to treat the thionyl chloride effluent."

Biofilter effluent treatment plants were installed at the plant sites of Shroff Group industries. The municipal waste 'nala' water at Bhavnagar was cleaned to provide process water for the plant. Established in 2013, the pilot has been scaled up to supply 10 lakh litres per day in 2016. "Today, we save 50 per cent on our daily water bill and we clean the sewage water of the city. Our biofilter plant in Dhordo inspired the block printers of Ajrakhpur, Kutch, to invest their hard-earned money in a plant to recycle their dye-contaminated waste water. Transchem Agritech has also developed selective cultures to treat waste water generated by chemical and pharmaceutical, dairy, food processing, wines and distilleries, fisheries, and sugar industries.

"Our transzyme and earthworm culture technology has several 'plus and bonus' features. It has a low operating cost, low power cost, low maintenance cost as no mechanical equipment is used, and it does not require constant monitoring; it's like a 'plug and play' technology! Besides this, all solid wastes are converted to compost, hence sludge disposal is not an issue. A reassuring bio-indicator was that 100 per cent of the fish survived in the clean-up process as no chemicals and oxidising agents are used! The discharge water meets the norms established by the pollution control board for irrigation and river discharge. The 'reject' water of the membrane, vermiwash, is nutrient rich. The bio-fertiliser contains Nitrogen, Phosphorus, Potash and other micronutrients."

The modular design of the trans-biofilter can be scaled up as required. "This can lead to exciting possibilities," explains Rakhee. "We have recently given a presentation to the sarpanchs of 1,200 villages along the Ganga. A sewage treatment plant can be established in each village to provide a cost-effective solution for achieving the objectives of the National Mission to Clean Ganga."

Every problem has a pointer; the solution often lies hidden in the problem.

Beware Delhi!

70% of water in the capital unfit to drink.

According to this article in *India Today*, "Only last year a spike in industrial pollutants in the Yamuna forced the Delhi Jal Board to cut production at two of its water treatment plants by half. This means that Delhi's tap water, at times, is diluted wastewater. About 20 per cent of Delhi is not connected with drinking water supply lines. Half of Delhi is out of/not connected to a piped sewerage network. This coupled with a creaking clean-up infrastructure means nearly half of the 850 MGD sewage that Delhi generates flows into the Yamuna untreated. The urban local body itself accepts that the drinking water supply at our homes is contaminated with sewage water."

Ensuring a 100 per cent sewerage network may take Rs. 25,000 crore and 15 years: this is where the 'toilet-to-tap' project—basically decentralised cleaning and reuse—can be a game-changer.

http://indiatoday.intoday.in/story/water-contamination-in-delhi-mcd-study/1/199446.html, Vikram Singh, New Delhi, 7 June 2012
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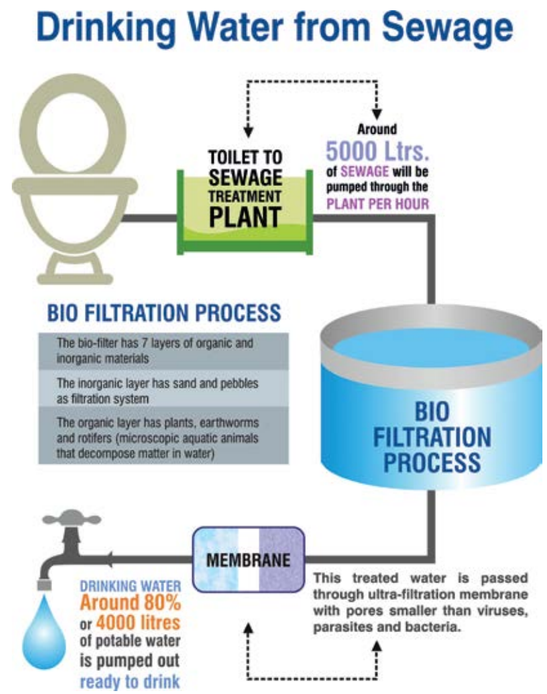


Blue is the New Green

The Future: Multiple Benefits of Seaweed

"Cut the greed not the trees."
"Let the green be seen."
"Green, go green…"
But do we listen?

Having more trees is one of the answers to the threat of global warming and climate change. Through the natural process of photosynthesis, trees absorb CO_2 and other pollutant particulates, store the carbon and produce oxygen.

But Ashwin Shroff advocates blue. "'Blue is the cool green' is my new mantra."

"Blue is the new green?" we quiz, rather puzzled by Ashwinbhai's sweeping proclamation.

The little mystery adds just the touch of interest to the problem of enhancing 'green'. Melting glaciers, rising sea levels, and frequent weather extremes will leave no continent untouched. Water supplies are shrinking, temperatures are rising, climates are becoming unpredictable, crop yields are dropping, forests are burning, and our oceans are becoming more acidic. This has huge implications for our livelihoods and human security. Human activities such as deforestation and the burning of non-renewable fossil fuels have resulted in production of excessive greenhouse gases in the atmosphere. These emissions, or infusions of thermally active gases -—Carbon Dioxide (CO_2), Methane (CH_4) and Nitrous Oxide (N_2O), into the atmosphere came at a much higher rate than anything previously seen on Earth. CO_2 is emitted in amounts that far exceed those of any other greenhouse gas. The crucial question is 'Can these emissions be reduced in any way'?

"The blue around us, the vast expanse of oceans and seas offers a plausible answer. It is a resource we have just begun to tap." That is Ashwinbhai's first hint that helps us understand why "blue is the new green".

Seaweeds and coastal plants have a huge potential to act as carbon sinks, and capture and store carbon to help combat the effects of climate change. This is not widely known and is also hugely underestimated. 'Blue Carbon' is a new term that designates carbon that is 'fixed' via vegetated ocean and coastal ecosystems rather than by traditional land ecosystems like forests. These blue carbon systems are highly efficient C sinks, more efficient than land-based systems for long-term carbon storage.

Ashwinbhai is passionate about the subject. "When I read about early research in this area, I was very excited. The findings could be our Alladin's Magic Lamp. If we do 'dariyakheti', use the sea and oceans as our fields for seaweed cultivation, we could ease the pressure on our land based systems for carbon sequestration."

"No land required, no fresh water needed, the biomass build up is fast, doubles in 40 days... Seaweed could be our breakthrough answer."

"Think about it…to reduce the impact of climate change, the number of trees we need to plant is enormous. This is not always feasible, as land is also required for feeding our people and our animals. Where we have wastelands, water is a constraint. On the other hand, we have such a long coastline. Gujarat's coastline is 1,600 km long, and India's coastline is around 7,500 km! Seaweed grows well in tropical regions on coral reefs and on the rocky and sandy bottoms of marine waters in intertidal or sub tidal zones.

Pilot seaweed cultivation along the Mandvi coasts.

According to a research undertaken by Deakin University's Centre for Integrative Ecology within the School of Life and Environmental Sciences, the discovery that some species of seaweed contained compounds that only degraded at very high temperatures means that there is potential for a contribution to long-term carbon storage.

"Seaweed cultivation could provide coastal communities, especially Pagadia fishermen, (fishermen who wade into the sea to catch fish) and their families, who are also very vulnerable to climate change with an additional source of income."

What can one do with seaweed?

"Seaweed cultivation has several benefits. It is a very versatile product widely used as food in direct human consumption, composted as a rich fertilizer and also used as animal feed. It can also be processed to provide renewable energy, because producing biofuels like seaweed in the sea removes many of the serious problems connected with conventional biofuels. Minerals from the ocean have a very high nutrient content. Seaweed is much more nutrient dense than any land vegetables. It is an excellent source of micronutrients including Folate, Calcium, Magnesium, Zinc, Iron, and Selenium. More importantly, seaweed is a great source of iodine. Herbovita, a plant nutrient manufactured by VRTI has demonstrated good results with pulses, vegetables, fruit trees and garden plants."

What is a carbon sink?

A carbon sink is a natural or artificial reservoir that accumulates and stores some carbon-containing chemical compound for an indefinite period. The process by which carbon sinks remove carbon dioxide (CO_2) from the atmosphere is known as carbon sequestration.

Ashok Jain takes us around the Herbovita production unit at VRTI. As with processes in their factory sites, the pilot Herbovita production unit is designed with simple equipment: the idli grinder and icebox make the system. "Women self-help groups can take on production with a small capital of Rs. 5 lakh. The market for the product is sizeable."

Shouvik Jha and Himmatbhai who have made noteworthy contribution to the development of seaweed explain the potential earning from seaweed cultivation.

"VRTI is cultivating the seaweed (*Kappaphycus alvarezii*) along the Mandvi coast, Kutch, Gujarat. As per the cost economics worked out by VRTI, the cost of building a raft for ocean agriculture and seeds would be about Rs. 3100. A fisherman family would need at least 30 rafts to harvest a daily crop. This would entail a cost of Rs. 93,000.The seaweed crop can be harvested after 45 days of seeding. A single raft has the potential to yield about 450 kg a day. Considering a market value of Rs. 10 per kg a farmer can earn Rs. 450 a day and about Rs 13, 500 per month, for about 7-8 months of the year excluding the monsoon season."

"We have just established our pilot photosynthesis factory in the sea." Ashwinbhai is hopeful.

He is waiting to see the rafts of seaweed floating on the shores of Mandvi soon.

Seaweed cultivation, an additional source of income for coastal communities.

Herbovita – plant nutrient made from seaweed at VRTI, Mandvi.

Faith in a Shared Destiny

'Alone we can do so little;
together we can do so much.'

Helen Keller

The Buddhist Story of the Four Friends

"Well, this is my tree, because I saw it first," the elephant asserted. "Besides, I protected it as a shrub."

The other three—the monkey, the rabbit and the partridge—spoke up one by one, each staking their claim as rightful sole beneficiaries of the tree.

The monkey said, "I fed on the fruits of the tree long before you ever saw it. I even fertilised it with my poop."

Next the rabbit spoke: "But I fed on the leaves of this tree when it was just a small sapling, before the monkey ate its fruit, and way before the elephant ever saw it. The tree is rightfully mine. I watered it."

Finally, the partridge came forward and challenged them all. "The tree belongs to me because I ate the seed and pooped it out. I helped plant the seed that grew into this huge tree long before the rabbit fed on it, or the monkey ate its fruit, or the elephant saw it."

The elephant, monkey, and rabbit conceded that the partridge was the first to know the tree. So, all of them bowed to the partridge and regarded it as their elder brother.

The four animals became friends and decided to share the tree together in peaceful harmony, enjoying the beauty of the tree's fragrance, the delicious fruit, and the bounty of its shade.

They realised how insignificant each one was alone. The bird had planted a seed; the rabbit had watered it; the monkey fertilised it; the elephant had protected the sprouting tree.

They worked together to obtain fruits. The partridge and rabbit found the fruits on the ground. The monkey climbed the tree and dropped the fruits but only the elephant could reach the highest branches with his trunk. Together, standing on top of each other, the four friends could reach the fruits on the highest branches. There was plenty for all of them to eat.

Other animals in the forest often saw them together. They were called 'The Four Harmonious Brothers'.

This remarkable Buddhist story highlights some great truths… the importance of cooperation despite differences in size, strength, temperaments, and even species. It speaks of unity, generosity and mutual respect, and suggests the protection rather than the exploitation of nature. Each of the four was concerned with trying to help the others to get what they needed. And more importantly, each got more than he would have managed by himself.

That is the spirit of *sahaviryam*.

What in today's parlance is practiced as Corporate Social Responsibility, was and is *sahaviryam* in the Excel ethos. Describe this social conscience as empathy for the community they are situated in, explain it as concern for the development and well-being of those less fortunate, or understand it as a deep sense of responsibility to their motherland, for the Shroffs social commitment was the foundation of their business. This social obligation was never a matter of compliance, it was a always a 'going beyond'... of striving to embrace corporate actions that were firmly rooted in high ethical standards and constructive action that would have a positive impact on the environment and stakeholders including consumers, employees, investors, communities, and others.

We share here some stories of the community work done by the Excel Group to ensure the safety of their employees and the environment, empower women, generate livelihood opportunities through natural resource development and vocational training, interventions to ensure dignity for the disempowered, disaster relief and much else.

In talking to Excelites—past and present—one common emotional denominator comes through: Excel extends a family feeling to their people. Amidst the voices are those of people that are not on Excel's direct payroll, such as contractors, ex-Excel entrepreneurs and those associated with the company in myriad ways. The family spirit has passed down as a precious legacy from C.C., the founder himself, who once asked his dearly loved younger brother to apologise to factory workers for having scolded them, even though he had good reason to. "Just as you are my brother, they are my sons," he had said. Companies make long-term investments in people by stitching them deep into its fabric and build teamwork by nurturing close bonds with others.

Some members of the Excel team at the Lote Parshuram Plant.

Shrujan… the Fun is in Finding a Way Out

Empowering Craftswomen to Earn a Livelihood

Sometime today, whenever they are free from their household chores, 3,000 craftswomen living in 120 remote villages of Kutch will sit down to their embroidery. Not only because hand embroidery is a way of life but also because they are part of Shrujan, a participative grassroots movement that empowers them to earn a home-based, sustainable and dignified livelihood through the practice of this craft.

The Dhaneti experience convinced Kaki that the skill of hand embroidery could become the craftswomen's lifeline.

Deciding to Do Something

The story of Shrujan is the story of an ongoing search for relevance; of learning to do more and more important things that contribute to the well-being of a people and a place.

In 1969, Kutch was devastated by a long period of drought. Chanda Shroff had gone to Kutch to help with relief work. When she reached Dhaneti village, she saw how desperate the situation was. And yet, the women were reluctant to accept charity. They were willing to do any work, including manual labour, but even such work was hard to find.

Chanda Shroff, or Kaki as she is affectionately known throughout Kutch, recalls, "The women were starving but there was something about them that was quite arresting. What I saw in them I also saw in their embroidery: there was an air of confidence about it… the colours were bright and numerous, the motifs large and bold, the overall effect was overpowering… and yet very pleasing."

The women belonged to the Ahir community. Kaki asked them if they would embroider some saris for her, using their traditional stitches, colours and motifs. They agreed more out of courtesy than conviction. Upon returning home to Mumbai, Kaki spent Rs. 5,000 to buy 30 saris and boxes of silken threads.

When the parcel reached Dhaneti, Parmaben (a skilled free-hand artist) took charge of the saris, drew their traditional designs on them, working late into the night in the light of a single kerosene lamp. She distributed the saris among 30 women whom she considered to be the finest craftswomen in Dhaneti. When the embroidery was done, she packed the saris, got into a truck and made her way to the post office.

Kaki arranged a small exhibition in Mumbai and invited her relatives and friends. Each sari was priced at Rs. 400. All the saris

The women work in the comfort of their homes at their time.

were sold within a few hours and the entire earnings sent right away to Parmaben to be distributed among the 30 craftswomen who had never imagined that their skill could actually enable them to earn some money.

Outwitting Obstacles, One at a Time

The Dhaneti experience convinced Kaki that the skill of hand embroidery could become the craftswomen's lifeline. The question was: 'How?' The women lived in remote and far-flung villages and had several domestic duties to attend to during the day. They had neither the money to buy textiles and threads nor the training and experience to market their embroidery.

Kaki took one 'obstacle' at a time and looked for a way to outwit it. If the women could not leave their homes, the textiles and threads would come to their homes! The postal service along with some local person on a camel or a bicycle would serve a cluster of villages, to begin with. The women would embroider in their spare time, as much, as fast or as slow as suited them. If the women did not have the money to buy the material, these would be provided to them. They would be paid their fair dues at their doorstop for their time and skill as soon as they completed the embroidery.

All this seemed doable. But where would the money come from—to pay the women, to buy the fabric and thread, and to cover other related expenses?

Pioneering a Socially Relevant Business Model

Kaki's business instincts prompted an answer. With the help of her family, relatives and friends, she set up Shrujan, a not-for-profit organisation. The word Shrujan was coined from the names of two family members, Shruti and Ranjan. It was only later that someone told Kaki that the Sanskrit word for creativity is also Shrujan.

From the outset, Shrujan functioned like a business enterprise. The textiles embroidered by the craftswomen were fashioned into high quality garments and lifestyle products and sold in urban areas in India and abroad. Production, marketing and selling became a means to an end, a means that would generate revenue on an ongoing basis.

In this way, long before the term 'social entrepreneurship' became fashionable, the Shrujan team working quietly in a small corner of the world had pioneered and practised its version of this business model with far-reaching success.

Standing Firm on Core Beliefs

Shrujan's success is based on a stubborn adherence to its core beliefs. The primary one is that *kaarigar*s (artisans) of all skill levels and especially those living in remote and inaccessible villages must be assured of work.

Another strongly held belief is that the craft must constantly strive to higher and higher levels of creative and technical excellence. This and only this will give Shrujan a competitive edge, allow it to stand out in the marketplace and earn a loyal and ever-expanding customer base.

Shrujan also believes that lifelong relationships must be built with all individuals and groups that make up the craft enterprises. Parmaben of Dhaneti was a young woman when she met Kaki for the first time. Today, this frail but gutsy 89-year-old grandmother says, "I take great pride in Chandaben. I know she takes great pride in me as well. Together we have walked a long and hard road. Someday, I will tell you all about that. But for now, all I want to say is that she is part of my family and I am part of hers…"

Safeguarding the Future of One Craft

It was this intimacy with people that alerted Shrujan to some worrisome trends in the early 1990s. Young girls seemed disinclined to learn the craft from their mothers and grandmothers, and the few that did learn were not motivated to practice it. The concern was that if this trend continued, hand embroidery would become extinct within a few decades if not sooner, and with no written documentation of the craft, there would be no way to revive it any time thereafter.

So Shrujan launched a bold and ambitious project called Pride and Enterprise. Master craftswomen created a treasure trove of large embroidered panels. Each measuring 3 feet by 4 feet, the panels represent all the different types of Kutchi embroidery, showcasing 16 styles of embroidery practised by nine different communities. These styles are identity markers for each community, each with its distinctive lexicon of stitches, for embroidery is an important means of personal, social and spiritual expression. The Ahir community's embroidery has particular stitches such as the *saankdi*, or chain stitch; the *baavadiyo* stitch; the *aabhlo*, or mirror work. Another example is that of the Meghwad Maaru community, whose *soof* embroidery is geometrical with floral motifs and rendered in satin stitch. These panels display some of the most exquisite hand

embroidery produced anywhere in the modern world. Pride and Enterprise was at the intersection of conservation, education, enterprise and empowerment. It raised the quality of the crafts to its highest level and took a giant leap towards securing its future. It was for this project and its profound impact on the preservation and revival of a living heritage that Kaki was honoured with the Rolex Award for Enterprise for the year 2006.

A special bus called 'Design Centre on Wheels' began to take 30 to 40 panels at a time on a rotating basis to the villages of Kutch. It generated tremendous curiosity. Young girls, in particular, stood in front of the panels and exclaimed, 'Is this hand embroidery?' Slowly but surely, knowing the craft and being good at it became a matter of pride. Indeed, the panels are many things to many people: a learning resource, a showcase, a design bank, a community asset…

There is much more that Pride and Enterprise must still accomplish. So far, the knowledge, skills and wisdom of this craft have been transmitted orally, from mother to daughter. But with young girls unwilling to learn in this traditional manner, new ways of teaching and learning and safeguarding the craft heritage have to be found. This calls for research and documentation and using modern media to do the work of skill training and embroidery-related education.

Shrujan has already researched and documented the embroidery of the Ahir community and produced a film and a book, both entitled *Under the Embroidered Sky: The Embroidery of the Ahirs of Kutch*. There are, however, at least nine other embroidery communities that need to be researched and documented.

Safeguarding the Future of All the Crafts

During its 44 years of existence, Shrujan has not only nurtured embroidery but also other textile crafts such as block printing and weaving. But the fact remains that the overall crafts scenario is bleak. The 22 different crafts that were once the glory of Kutch are today in

Kaki's business instincts prompted an answer and she set up Shrujan, a not-for-profit organisation.

Shrujan launched a bold and ambitious project called Pride and Enterprise. Master craftswomen created a treasure trove of large embroidered panels.

The 22 different crafts that were once the glory of Kutch are today in a state of crisis.

Senior *kaarigars* from various crafts communities repeatedly urged Shrujan to do for all the crafts, what it has done for embroidery.

Shrujan has launched the Living and Learning Design Centre (LLDC), a *kaarigar*-dedicated multidimensional craft education and resource centre on a 9-acre campus near Ajrakhpur village.

a state of crisis. Most *kaarigar*s cannot earn from their craft practice, and with no other livelihood option, they are forced to migrate or take up menial jobs that afford neither dignity nor economic security.

Senior *kaarigar*s from various crafts communities repeatedly urged Shrujan to do for all the crafts, what it has done for embroidery. This led to the creation of the Living and Learning Design Centre (LLDC), a *kaarigar*-dedicated multidimensional craft education and resource centre situated in a three-building, 9-acre campus near Ajrakhpur village, 16 km from Bhuj, Kutch. The museum was inaugurated on 25 January 2016. About 1,400 women, some of whom had never stepped outside their villages, crossed the threshold to visit it in its opening week.

"Because this place is for the *kaarigar*s, and because it is Shrujan, there's ownership of the place by the women," explains Ami Shroff of Shrujan Trust, which commissioned the Living and Learning Design Centre. "It is for them to come and see the work they do and substantiate it as a continuation of what their predecessors did."

Through LLDC's two main components—the Crafts School and the Crafts Museum—practising and aspiring *kaarigar*s as well as rural youth will receive need-based training, exposure and individual nurture. They will be equipped with a variety of skills including those related to design, management and marketing. This will enable them to practice traditional crafts for contemporary markets and earn a dignified and wealth-generating livelihood.

The Crafts Museum complex with its three galleries and archives is the first of its kind, international-level museum that showcases the best examples—traditional as well as contemporary—of the crafts of Kutch. The craft of hand embroidery is the primary subject of all the museum shows.

In Phase 2, the Crafts School will conduct an 'Integrated Crafts Course'. The Crafts School will have fully equipped working studios for all the 22 crafts of Kutch. This will make the LLDC the single largest living and working crafts environment in all of Kutch, perhaps even in all of India.

The ongoing search for relevance can be intimidating. Shrujan agrees but would surely say that nothing is impossible. There will always be problems; the fun is in finding a way out…

The Game Changers

Shroffs Foundation Trust: Mapping and Addressing Needs through a Partnership

The Shroffs Foundation Trust (SFT) was established in 1980 as a commitment to the communities that lived in the vicinity of Kalali, close to Transpek Industry Ltd. These initial social welfare activities were given a focused development impetus when Mrs Shruti Shroff was given the responsibility to lead the organisation as its Managing Trustee.

In the early nineties, SFT expanded its coverage from the immediate neighbourhood; it was entrusted with the challenge of nurturing the development of Chhota Udepur, a remote, crime-infested and under-developed tribal pocket of Gujarat.

We spoke to Shruti Shroff about the 30-year journey… the little successes, setbacks and lessons that eventually led to greater insights and fine-tuning of programmes.

How would you assess the endeavours of SFT over the past 30 years?

The game changer programmes in the past 30 years have been watershed development, scientific agriculture and crop diversification and development of animal husbandry and dairy as a sustainable livelihood. Agri-mechanisation made workable and sustainable by grooming local entrepreneurs and vocational training of tribal youth is the second leap forward. The community now understands the value of these interventions, and this indicates that we are now ready for the next level of development initiatives to create a "*garibi mukt*, *shoshan mukt*, *pradushan mukt*, *poshan yukt* and *nyay yukt* society (poverty-free, exploitation-free, pollution-free, just society)."

Shruti Shroff, Managing Trustee, SFT, with the community in Chhota Udepur.

What would you say has been your most crucial lesson?

Our starting point and focus is always the people, their needs and their wisdom. We strongly believe we are not givers and neither are they takers. We are here to share a dream, to shine a torch on visible and at times 'invisible' needs… We work with them to create a path to fulfil that need. Our endeavour is to empower them to walk that path, to strive in every way to make the intervention sustainable.

Embroidery provides women of Chhota Udepur a steady supplementary source of income.

It is our job to prepare the community for the road ahead and not prepare the road for the community.

The initial effort focuses on knowing each other, mapping the needs, capacity building and enabling the community to own the project. This is the foundation of our community work. We equip them to tackle the challenges that obstruct their march forward, steady them if they falter, sit with them and facilitate the resolution of conflicts that may arise… Feedback from the community and programme evaluation is critical at every stage to modify and fine-tune interventions.

Ours is a very workable quadrangle model based on a 'Government–Voluntary Organisation–Industry–People' partnership.

Earlier, you mentioned that you see faster upscaling of projects now than in the previous years. How is that so?

The preservation and management of the most precious resources of the region, soil and water, makes agriculture a possibility and food security a reality. The community has risen from the ashes of a subsistence existence and had a taste of sufficiency… With food in their belly, a rich harvest in their fields, they see a dream and aspire to a better way of life. They thirst for new knowledge. They are ready to soak in, to absorb and implement new ideas.

The Mahila Kisan Sashaktikaran Programme, designed to empower women farmers, received a heartening thumbs-up from the tribal community of Chhota Udepur.

Empowering the women farmers of Chhota Udepur. 7,300 women from 90 villages have been mobilised through MKSP, a central government-aided scheme.

This is an exciting stage, the right effort can leverage a significant change, because we have a foundation, we have years of trust and our credibility to draw on.

Growth builds on growth, exponentially.

Earlier, it took six years of patient demonstration before we saw new agricultural technologies percolate to the fields. In 2013–14, we saw this happening in six months through women farmers who participated in the Mahila Kisan Sashaktikaran Programme (MKSP). The response was astounding.

Why do you feel the MKSP, a central government scheme, generated such a heartening response in its first year?

All successful programmes depend on institution building at the village level.

We were hopeful when we started, but mobilising the participation of 7,300 women from 90 villages, and providing them training and essentials through 72 'locally manned' Farm Schools has created a major stir in the field. We have never before witnessed this kind of enthusiasm, this instant energy and instant action.

Women work hard in the fields, harder than the men. But in most communities, they have little say in decision-making regarding agriculture-related practices because they do not 'own' the land. There are perhaps many reasons for the success of the MKSP in our region. Women are diligent learners and have a greater keenness to improve their lives. They are natural communicators who come home and share their learning. This sharing is easier in tribal communities as tribal men and women work in pairs, shoulder to shoulder, and a certain sense of partnership exists between them. The women meticulously followed what they learnt at their farm schools in the field. They followed every step more scrupulously than the men.

Breaking our myths of gender bias, the tribal men have been quick to learn from their women. Higher and quality yields, savings on input costs… this is a language the men understand. As one woman cheekily remarked, "Everyone is drawn to the honey, they have no choice, but to follow us."

Success has an amazing quality; it multiplies. Banks came forward to give special loans to women farmers. With this, women

Young women welders work shoulder to shoulder with men on Thermax shop floor.

Learning the trade at Vivekanand Institute of Vocational and Entrepreneurial Competence.

farmers had power to purchase quality inputs for better yields.

The focus at the 72 farm schools is on sustainable agriculture techniques in the context of five crops: maize, paddy, wheat, udad and gram. Soil testing, through portable easy-to-use kits; use of organic manure; vermi-compost; and bio-fertiliser such as *amrutpani*, and pest management preparations such as *brahmastra*, locally manufactured by the farm school coordinator, are being accepted by women farmers. Being an entrepreneur gives our *samajshilpi* (farm school coordinator) a lasting stake in the programme. Other services and facilities have been created at select cluster levels, such as rice mills and machinery for agri-mechanisation.

SFT has worked with agricultural universities since its inception in 1980s. Starting in the early years, SFT held seminars and workshops with experts from agri-universities to bring the latest agri-science development to remote tribal villages. Sheer numbers make the impact visible. With 72 farm schools in villages of Chhota Udepur and Pavi Jetpur and 7,300 enthusiastic women farmers who participate in the training activities regularly, modern agricultural practices have an easy entry into tribal villages.

Just a small example gives us an indication of the tremendous potential. By switching to the new method of paddy cultivation (System of Rice Intensification; SRI), a woman farmer reported a whopping production of 1,300 kg of paddy compared to her earlier production of 380 kg, with reduced input of resources such as water and negligible input of chemical plant enrichment and plant protection products.

The Lokarpan of VIVEC, Vikekanand Institute of Vocational and Entrepreneurial Competence is a milestone in your endeavours. What is its significance?

Our formal education system does not provide students with the basic skills to enhance their job opportunities. This has translated directly into unemployment for our tribal youth. Hard-earned money pumped into private schools and higher education yields no returns. Their disappointment and disheartenment to find that their education has no market value is something the education system does not account for when it creates education statistics, and hence, the focus on vocational education is significant. SFT initiated vocational education programmes at our Kalali premises in 2011 on the centenary of our founder late G.C. Shroff, under the banner of Vivekanand Institute of Vocational and Entrepreneurial Competence (VIVEC).

In 2013–14, we initiated steps to take VIVEC to its own premises in Paldi in the Waghodia block of Vadodara District. It is a sprawling campus of 1 lakh square feet, with six classrooms, 11 labs, 20 courses and accommodation for 400 students in the hostel. Our long-term goal is to transform these labs into production labs so that our students can earn while they learn. The Desktop Publishing (DTP) labs will take up job work; the Business Process Outsourcing (BPO) course that prepares students for call-centre jobs will take on real-world assignments to make our students more 'employment ready'. The Welding lab would have enough equipment to manufacture various items from iron and steel. This professional exposure will give our students a jump-start.

The courses have been identified through intensive consultation with various federations of industry and guidance from well-known industries, including the insights of Shroff Group of Industries. Atul, my husband, and Transpek Industry have played a crucial role in helping VIVEC with this exercise and curriculum development.

Personality development, and language and leadership skills bring an added dimension to our training. The young girls and boys leave VIVEC as confident adults. We strive to facilitate a process of transformation from potential to actual excellence.

Vocational training at Vivekanand Institute of Vocational and Entrepreneurial Competence (VIVEC).

We are the Victims and the Warriors

The Strength of Synergy: Tackling the Aftermath of Cyclones and Earthquakes

On the morning of 9 June 1998, the telegraphic link between the Kandla post office and the Ahmedabad Indian Meteorological Department, IMD, was disturbed. So, the signal X message (extreme danger) did not reach the Kandla post office.

"We received this telegram on 15 June. By then, everything was over," a Kandla Port Trust official was reported as saying in a news report.**

Bad communication sealed Kandla's fate.

A nation's genius, as well as its blind spots, are most starkly apparent at times of great crisis. The machinery of the state did not live up to the need of the hour when winds hurtling themselves at the speed of 195 km/hr and swirling waters destroyed the town of Kandla and nearby areas as also the Kandla port. More than 10,000 people were killed during the 9 June cyclone and over 15,000 were displaced. Communication was greatly hindered throughout the impacted region as power transmission towers fell because of the cyclonic winds. Over 1,62,000 structures were either destroyed or otherwise damaged and lakhs of trees were uprooted.

The hands from heaven, the groundswell of help and sympathy came pouring in from voluntary organisations and people all over the state. While the state went into indecisive inertia, the local volunteers swung into action. Vivekanand Research and Training Institute, VRTI, was one of them.

Kaka is all praise for late Tulsibhai Gajara, who was then overseeing the development programmes initiated by VRTI, established by Kaka in the mid-seventies. Tulsibhai liaised with other

Cyclones or floods, our teams rushed to the rescue.

voluntary organisations and stressed the need for all of them to work as a team. The response was positive. Efforts were coordinated. Resources, volunteers and funds were pooled and deployed with thoughtful planning. The then collector also synchronised the state's efforts with people's efforts.

"The 52 student volunteers that Manubhai Pancholi sent from Lokbharti Sanosara (near Bhavnagar) were a 'godsend'. Ever-ready, they were the foot soldiers who surveyed the needs of villages in the affected Kandla–Bhuj belt."

Kaka's memories of those days are very vivid.

"We would set off at six o' clock in the morning, moving from village to village, eating where we could, resting where we were."

The detailed surveys conducted by the Lokbharti students were useful on many counts, resources were distributed with an exactness that ensured near zero wastage. Through these visits, local village-wise volunteers who could take the lead were identified.

EXCEL drew on the experience of Kutch to develop a protocol for immediate action during calamities. Detailed surveys to assess needs, village committees to actively partner in relief and reconstruction were organised. The local *vikas samitis* were involved in decision making, material distribution, account keeping and several other tasks. The commitment was long-term to facilitate some transfer of knowledge, such as best agricultural practices or development of local skills. What always stood them in good stead was Excel Industries's expertise in microbiology, technology and products—sanitising, decomposing, disinfecting. "We work on both sides of the science: on the one hand, to develop helpful microbes to tackle a ticklish problem, and on the other, if problematic microbes arise, we know how to control them."

"We are proud of four significant achievements," Kaka says as he looks back in time. His readiness and energy—he must have been 70 plus then—is inspiring. "We could save more than a thousand uprooted trees in the Mundra garden belt with the people's help and our product Celrich. They were replanted in a Celrich enriched soil. They survived. That was *adhbhoot*, a miracle." Kaka's pride and satisfaction in the successful experiment is apparent even today, almost 20 years later.

Restoring electrification to the region was another daunting challenge.

"The Keshubhai government had announced that it would not be possible to restore electric power in Kutch for the next three months because of the extensive damage. That was not acceptable to us. We joined hands with Gujarat Electricity Board engineers. Volunteer teams were formed in each village. They worked with the electricity board engineers to re-erect the uprooted electric poles. With the people's determination, the darkness in Kutch was dispelled earlier than the government had promised."

A roof over the head was another pressing need.

"The monsoon was lurking in the shadows. We had to act with urgency. Houses had collapsed and several homes were 'headless'. Ambuja Cement supported our initiative with subsidised cement and trained local *kadiyas* (masons) to construct 'safe' slabs that were properly cured. The Morbi suppliers offered the tiles to us at concessional rates. Backed by data obtained through the survey, the foot soldiers from Lokbharti ensured that only the required number of tiles were unloaded at each village. Thus, we contained costs and did not run out of tiles.

"Schools restarted without too much delay as we motivated students to take on the responsibility of repairing their schools. They did this with pride."

Cleaning up the rot and stench brought Excel's expertise to the fore.

"Kandla and Gandhidham were graveyards. The slush and decomposing dead bodies spelled an epidemic. They had to be disinfected immediately. We were able to save the situation with Madhyam/ Bioculum (another of our microbial products) along with Sanitreat, an odour-masking powder from Excel, that we had earlier used with dead cattle. This was the first time it was used to sanitise putrefying dead human bodies."

Madhyam and Sanitreat have subsequently been used regularly to check the spread of disease in the wake of destruction caused by natural calamities. All that is needed is to spray the sanitisers at body orifices.

What came next was crucial. It showed Kaka's foresight and his ability to build teams that could take on the toughest jobs. He continues, "We could not afford to be caught unawares again. Kutch is a disaster-prone region. We needed our own Lokbharti team,

our own foot soldiers, our own '*vyavastha*' and preparedness. We selected 50 youth through a gruelling interview process to evaluate their strengths and assess their agility and leadership in crisis situations. We are not taking 'exterviews', we joked amongst ourselves, we are taking 'inter'views; we are gauging their inner '*shakti*'. Selected youth were inducted into our disaster rehabilitation team with a three-month rigorous training."

"The cyclone came again, sooner than we had anticipated, in 1999. This time, it struck western Kutch. We had our own team. The cyclone was accompanied by pelting showers. I shudder at the memory of the furious intensity of the rains even today. Thousands of animals, sheep, goat and cattle died in this cyclone. Their drowned carcasses contaminated all the water bodies. There was no drinking water in the region. Chlorine tablets were distributed on a war footing with the help of our foot soldiers, local volunteers and voluntary organisations.

The slush and decomposing dead bodies spelled an epidemic. They had to be disinfected immediately. Madhyam/Bioculum/Sanitreat, Excel's products, earlier used with dead cattle, were used to sanitise putrefying dead human bodies in the aftermath of the cyclone in Kandla and Gandhidham.

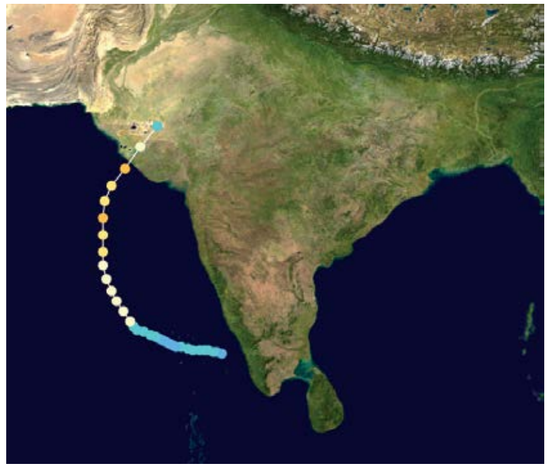
"The collectorate, Kaka, Tulsibhai and the voluntary organisations did not sit back on the laurels of a mission that was accomplished. During the 2 October Gandhi Jayanti celebrations, the group resolved to strengthen their mechanism for collective action, not only during disasters, but to build a network to synergise human knowledge, physical and financial resources, and collaborate towards development, which is governed by community initiatives. Twenty-two local organisations had come together and started working as a group during the cyclone. The group thus formed came to be known as the 'Kutch Sankat Ane Punarvasvat Abhiyan'. This experience had enabled the voluntary organisations to gain confidence to perform as a collective, even in totally unexpected disaster situations. Thus, Kutch Sankat Ane Punarvasvat Abhiyan was renamed as 'Kutch Nav Nirman Abhiyan' (in short, Abhiyan) to work as a supporting and networking organisation to voluntary organisations of Kutch, on issues that were of common interest.

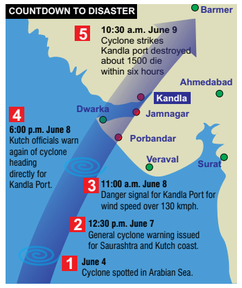
"The Abhiyan is active even today. One of its initial endeavours, in the year 2000, was a three-day brainstorming and contemplation that brought together 150 people including representatives from the centre and the state. Some of the discussions hovered around drought relief. We, the members of the Nav Nirman, objected. **Enough about relief, we need to be drought proof.** A series of interventions were planned for 2001. Before we could even start, Kutch trembled again!"

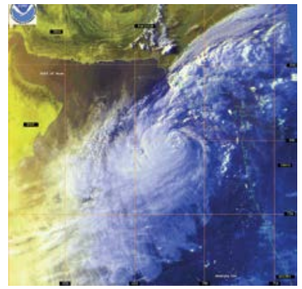
An earthquake of 7.9 magnitude on the Richter scale affected several parts of Gujarat and showed much of its ire in Kutch. Grieving families, fallen buildings and broken dreams resulted. The towns of Anjar and Bhachau were completely wiped out. In Bhuj, 90 per cent of the buildings were affected and almost all the villages in the region were reduced to piles of stones, rocks and rubble.

The Shroff family, Excel Group and their voluntary organisations sent large teams that camped in Kutch for more than three months to partner with members of the Abhiyan in the rebuilding of Kutch. Three years of preparedness helped them lead rehabilitation from the frontline. Reconstruction of owner-driven homes that could withstand the pressures of cyclones and earthquakes were the priority. The tasks were done without compromise, within budgets.

In Roha, we met Nitin Joshi and Sanjeev Kavitake, members of the Excel earthquake reconstruction team. "Kaka gave us a brief orientation about the local conditions before we left for Kutch. I, a commerce graduate with no idea of how to build a house, was







Winds hurtling themselves at the speed of 195 km/hr and swirling waters destroyed the town of Kandla and nearby areas as also the Kandla port. More than 10,000 people were killed during the 9 June cyclone and over 15,000 were displaced. Over 1,62,000 structures were either destroyed or otherwise damaged and lakhs of trees were uprooted.

given the responsibility of building 545 *bhungas* (circular-walled with thatched roof, traditional houses unique to Kutch) in a village. I was hesitant, but Kaka said, 'You can do it.' After a three-week intensive training from the civil engineers, we worked with the local people to build their houses. Kaka's confidence in us and our training at Excel helped.

"We learnt to make houses, bathe in cold water, and Sanjeev, who was in Kotada Mata, learnt to cook his own food. He even mastered the craft of making chapattis. We solved the language problem by keeping a register of key Kutchi phrases. Soon, we did not need the register."

Whenever, wherever a disaster strikes, an Excel team will be sent… Latur, Maharashtra, 1993, Orissa, 2000… Committed hands are more crucial than funds.

"See what a government system precipitated at Kandla. They thought their duty was done by sending out such a critical disaster signal through a paper in an age of phones. Everything cannot be left to *raj-vyavastha*, the rulers and governments," Kaka says, decidedly. "I learnt this from Vinoba Bhave," he continues, with the wisdom and sobriety of years. "What counts is our *samaj-vyavastha*, our social systems, the role we play as citizens. We are the victims and the warriors."

** http://m.rediff.com/news/1998/jul/01kandla.htm According to the jargon, signal VIII signifies danger and that a severe storm of great intensity is expected to cross the coast to the south of the port. Signal X indicates that the port itself is in danger from a storm. And that is where the Kandla port authorities were deceived. They had received a signal VIII warning.

The 2001 Bhuj earthquake occurred on 26 January, India's 51st Republic Day, at 08:46 AM IST and lasted for over 2 minutes. The epicentre was about 9 km south-southwest of the village of Chobari in Bhachau Taluka of Kutch District of Gujarat, India. The earthquake killed between 13,805 and 20,023 people, injured another 1,67,000 and destroyed nearly 400,000 homes.

Building Bridges of Goodwill

"You Can Leave Excel, but Excel Will Never Leave You"

If anyone wished to be associated with Excel Industries, it would be wise for them to do some homework. Entering the Excel ethos is very different from going into another similar modern and forward-thinking corporate. While Excel Industries has had over 100 breakthrough innovations spanning its 75 years, it has, in a parallel way, fostered a deeply caring approach.

The blessings of the elders of the family greet Excelites daily, from the photographs lining and dotting the walls and cabins. Walking around, one commonly hears kinship terms: Bhai, Kaka, Ben, Kaki, Bhabhi… The Chairman of the company is 'Ashwinbhai'. His wife is 'Ushabhabhi'. There is a warm camaraderie suffusing the office space.

If you were applying for work under Kantisenji (Kaka) years ago, you might be confronted with questions like "Do you know cycling? Cooking? Can you write your name three times on this paper?" This happened with Bipin Jha, currently Excel's Senior Executive, Accounts & Finance. Or, armed with a certificate as a Chemical Engineer, you might summarily be asked to dismantle and refit a pump. Kaka's ways were extraordinarily unusual, but he wanted people who were practical, who could focus on the task and get it done, even in the most challenging circumstances. One of them was the setting up of the Roha plant, which Kaka's elder brother, Govindjibhai, had committed to, in an almost impossibly short time frame.

Bahadur Gandhi, Vipin Doshi (today, adviser to ICC) were sent to Roha and later joined by Suresh Ogale, then a management trainee. It was February 1975 and Excel was setting up a plant on an MIDC plot there. The place was like a forest. They cycled their way around, initially getting to know their surroundings, and building bridges with the local community. This was an essential part of Excel's way of working. They use this approach with people around, their colleagues, and those that they train. First comes the relationship with people in their surroundings, as seen later in all the new places where they expanded. From social structure, to infrastructure, to manufacturing, to profits… in that order.

The wonderful thing about building bridges with people in the local community, is that it generates a lot of goodwill. In every new place that Excel Industries announced its presence—whether in Roha, Bhavnagar, Kutch, Lote Parshuram, Gajod or any other—the policy was to recruit people from the local area and bring them into the 'family'. This even meant bringing in the cured inmates from the leprosy home in front of the Bhavnagar site, as Kaka did! If people were willing to learn, they were trained. They could choose what kind of work they felt they would be good at.

C.A. Mehta and Pankaj Kapadia were dynamic technical people and coordinators, and kept things going to get the Roha plant ready.

In every new place that Excel Industries announced its presence—whether in Roha, Bhavnagar, Kutch, Lote Parshuram, Gajod or any other—Excel initiated community programmes and employed the local populace in their plants, bringing them into the 'family'.

At the time, around 90 per cent of the workers were local, and they felt the bond, calling it **their** company. This positive approach held both Excel and the local people, in good stead.

They say that what goes around, comes around, and there are many examples that illustrate this, scattered along the journey of Excel. In Roha, the team experienced this first hand, because in 1989, when the floods came, it was the local people who worked with Excel for their mutual benefit.

In 1989, it rained incessantly. River Kundalika overflowed its bank, and Roha was flooded. The plant and machinery was under water. Of the 8,000–9,000 trees that they had planted, about 2,000–3,000 were culled by the storm. But like people, nature also offers a silver lining; these fallen trees prevented product containers from floating away.

As Vipin Doshi and Bahadur Gandhi recount, smart planning was needed. With varied experiences, the team had already acquired situational decision-making abilities. As the water levels rose, lists of needs were made and resources assessed. They got hold of a jeep, found fuel and sent it off with a note to Mumbai, listing their needs. An emergency meeting was held and within four hours, Kaka and Ashwinbhai sent off a truck from Mumbai with all kinds of supplies and food and everything that was needed, including cholera vaccines. Excel was the first to send effective help.

Journalists from *Business India* marvelled at the Excel team's speed, efficiency and care, and Excel was in the news, quoted as an example of the humanitarian spirit in action. Other corporates came for advice in disaster management. Even their local bank, whose vaults held currency notes, was inundated with water. How were they to save these notes? Bank officials were desperate. Excel held out hope…their plant's drying machine was working. Could this help? It was placed at their disposal. It must have been a uniquely funny sight to watch currency notes being dried out by Excel's drying machine!

How to get back to work? The local people, mostly farmers, rallied round, pulled out their axes and came to the Excel site. In groups, they began chopping up the wood. They cleared the site by themselves, and asked if they could carry the wood away for their own use. Of course they could.

These are the benefits of the family feeling, the concern for people around us, the essence of *sahaviryam*, which is really the joy of togetherness. These are the kinds of stories one would like to know about, before one enters Excel. Entrances and exits of people happen more frequently today, in corporates all over the world. They happen in Excel too, perhaps much less than elsewhere. The difference is that here, both entrances and exits receive the blessings of the management. There are many cases of people who left Excel, and returned to the 'family' later. There are also examples of those whose loyalty generated a response from the management. Prabhunath Pal, who joined to look after transport maintenance, has an expanded role, and his daughter, Pushpa, and son, Sachin, have become part of Excel. Multiply this situation manifold, and you get the picture.

Suresh Ogale sums up his own exit from Excel, 12 years after joining: "You may leave Excel, but Excel will never leave you."

Scenes of destruction, Roha floods, 1989.

The Safety *Chalisa*

Good Samaritans and the Value of Safety Measures for a Chemical Plant

"Yug sahastra jojan par bhanu par bhanu,
leelyo taahi madhur phal janu.
(You rushed upon the Sun, thousands of miles distant, thinking it to be a sweet luscious fruit.)"

This verse from the *Hanuman Chalisa* describes an antic of Bal Hanuman. When Indra saw the hungry Hanuman leap into the sky to catch the great yellow ball, he threw his weapon, the Vajra (thunderbolt) at the child, who fell to earth wounded. There was no other way he could stop the speeding child from burning to death.

Indra saved Bal Hanuman, but he evoked the ire of his enraged father Vayu. To placate Vayu, the gods Brahma, Indra, Varuna, Agni, Surya, and Yama offered Bal Hanuman a multitude of boons that made him invincible.

"Protect us Lord Hanuman."
The Monkey God is an epitome of strength, courage and wisdom.

The workforce at Lote begin the day with a vow to adhere to the principles of safety.

But, before he received his safety 'kavach', the protective shield of divine boons, even Hanuman was not allowed to play with fire!

Every morning at 8.15 a.m., the entire staff at the Lote Parshuram plant site assemble in a neat formation of rows, facing the Ganesha temple. Hands folded, they start the day with a prayer asking for the God's protection. At the end of the prayer, they pay obeisance to Ganesha—Lord of Good Fortune, Lord of Beginnings and the Remover of Obstacles—before they proceed to their respective duties, helmet in hand.

They have Ganesha's blessings, but safety is, and must be, a daily endeavour.

Suresh Patankar, Senior Manager HR, started the discussions on safety with his first experience of transporting a hazardous chemical.

"I was a safety officer in the early years of my service. I was all jitters and tension when I carried the first consignment of acetyl chloride 700 km from Lote to Hyderabad. Tracking trucks transporting hazardous chemicals was a challenging task, before mobile phones made communication with the truck drivers simple and 'instant.' In the pre-mobile days, we cultivated contact points enroute to monitor our trucks. Every 20 km, local tea-stall owners, small-time vendors, a *hawaldar* of the police *chowki* were our informants. We even had handicapped persons as our communication points. These contacts alerted us about problems and mishaps that transpired during transit. It did not matter whether they were our trucks or the trucks of other companies carrying hazardous chemicals. Currently we are using an interactive software that helps us to ensure safety protocols critical for the movement of hazardous chemicals. The software enables us to track outbound vehicles on real time basis through GPS installed in the vehicles." Suresh Patankar beams with a father's pride.

"Several safety officers and safety teams in other chemical plants and industries in the Lote Parshuram and Roha Industrial Estates have been trained by Excel safety teams. Safety is the first priority at Excel. There are no discussions, no debates, and we are immediately sanctioned whatever is required to improve our safety standards. Coordination between departments, staff and contract employees is a regularly oiled engine. Every shift has members from the safety team."

Sanjay Chauhan, safety officer, chimes in: "We have a Safety Synergy Group that comprises members from all the Shroff Group of Industries. Every quarter, a meeting is held at one of the sites. Safety procedures and problems are shared. The visiting team does an audit of the host plant. The critical feedback is a signal for continual improvement."

In the wake of the Bhopal Union Carbide Disaster in1984, a high-level committee had been deputed by the central government to inspect chemical plants manufacturing hazardous chemicals. All the managers and technical staff were tense, but when Kaka briefed the team that was to interact with this high-level committee, his perspective surprised and relaxed everyone. "This is an opportunity and not a threat. We will have the chance to interact with the best safety experts from across the country; we can learn from these consultants free of cost. Let us make the most of this."

Excel's strict adherence to safety standards is reiterated with an emphasis by those working closest to danger, again and again. Plant operators Subhash Naik and Sanjay Gharat feel secure working here, as measures are continually introduced to enhance safety. "*Chlorine bahut* danger gas *hai*. Chlorination *mein bahut* improvement *hua*. *Abhi* blower *bithaya hai*, safety *se kaam kar sakte hai*. *Bahut sari* company *mein yeh nahin hai*."

Sanjay Chauhan feels that the safety team was held in high esteem by the industrial estate because of their willingness to face danger. "Kolhapur, Sindhudurg, Satara, Sangli or Raigadh, whenever a chemical accident occurs, state pollution control board officers,

Fire safety drill at Roha.

The Roha plant firefighters have won 36 prizes between 2006 and 2016 in various fire-safety competitions. Their team comprises young women and men.

factory inspectors, police or the industry safety teams call us, the Excel team, first. They know we have the skills and willingness to deal with chemical disasters. We have our management's unconditional support on this count."

Vikas Yadav recalls an early rescue mission: "A drum containing a hazardous liquid had begun to leak on the road while being transported. The police mistook the material to be ours as the transporter and the despatching organisation had not removed the earlier Excel labels on the truck. They called us. We advised them to overturn the drum, and wait till we reached the spot. Then we did whatever was needed to eliminate the hazard. A potential tragedy was averted."

Another mission, and this time it was Sanjay Chauhan to the rescue. He was returning from the office of the Director of Industrial Health and Safety, Kolhapur, when he received an SOS from the Director, requesting him to return. There had been a leak in the chlorination pipe of the effluent treatment plant at Lote. "The panic in his voice was palpable." Sanjay stopped, hired a taxi and charged back to Kolhapur. Meanwhile, he calmed the local safety team with some practical tips over the phone and helped avert the disaster. "I did not waste time with permissions. I informed my seniors once I was in a taxi speeding to Kolhapur."

Mr Budhwani, (MD of a company based in Roha) from the Roha Industrial Estate also recalls how the Roha safety team had come to the rescue of his workers who were stranded in his plant with a pool of chlorine around them because of a leak.

Toppled tankers, mishaps in neighbours' plants, fires in the city or the industrial estate… there are many brave tales and awards and felicitations that speak of the team's presence of mind and mastery in handling hazardous situations. "We had a trained firefighter before the Lote Parshuram Industrial Estate got its fire station in 2006–07. And their firefighters were also trained by our colleague Bajange," Sanjay Chauhan informs us.

"Our hero number one is Bharat Bajange," the team announces unanimously. "He rushes to help wherever there is a fire, in the local industry or a fire in Chiplun."

Bajange just smiled, a little embarrassed by all the praise showered on him.

The Roha plant firefighters have won 36 prizes between 2006 and 2016 in various fire-safety competitions organised by the Maharashtra government authority. Their team comprises young men and women. "We are very honoured to be given this training," the young women Sukanya and Pratiksha tell us, pointing to their trophy.

Vijay Kate's chance to prove himself came when a valve in an HCL tanker 'failed'. With the speed of a cheetah, he took the risk-fraught initiative to refit the valve and avert a possible disaster in their plant.

Weren't you afraid to sprint to danger?

His reply, though 'filmi', is heartfelt: "*Darrke aaage hi jeet hoti hai. Kaise nahi karte? Apne* Excel *ka naam kharab hota!* (There is no victory without fear. Our Excel's name was at stake.)"

Thinking of Bal Hanuman, we adjusted the helmet on our head. Even visitors to the plant site needed to follow the safety protocols.

Winning is Not Important

Aatapi Seva Foundation: Comprehensive and Inclusive Development of Marginalised Rural Communities, and Empowering People with Disabilities

"Winning is not important for me… It is the sheer joy and excitement of being able to participate!" Jeeviben Parmar, 43 years of age from Uber village of Jambusar block, is ecstatic. "I like the festivity that goes with the event. It is a chance to meet old friends and make new ones. And so what if I cannot walk upright!" There is an impudence in her voice that is endearing.

Jeeviben regularly participates in the Khel Mahakumbh, the sports meet for the differently abled. Though Jeeviben says winning is not important, she is the proud recipient of medals at the district and state levels.

She talks about how her self-esteem and confidence have grown since she came in touch with Aatapi: "It is not about earning some small money; it is about earning my dignity. Who would think that till about five years ago, I was confined to the dark corners of the house? I felt like a worthless piece of furniture that was gathering dust… useless… Pity and disdain were the only emotions I seemed to evoke in others."

When Aatapi delved into the lives of people with disabilities in four villages of Jambusar block, Bharuch district, in the year 2008–09, the situation was bleak. They were generally resigned to a future with no promise. They were not aware of their entitlements or the public resources and services they could draw on to live more fulfilling lives. The findings of the in-depth survey in 13 villages that Aatapi undertook in 2012 were similar.

Disability certificates, bus passes, support to obtain aids and appliances, scholarships for children with special needs brought a remarkable change in the lives of the differently abled. It was the first breath of independence. Sewing, training in computers, linking farmers with disability to mainstream farmers' groups, women with disabilities with self-help groups transformed lives as it enabled the disabled to earn a living.

Small groups were formed at the village level to address basic issues of local persons with disabilities. Nearly 50 leaders in 20 villages have emerged. They have started taking initiatives at the village level to bring persons with all disabilities under one umbrella. Aatapi nurtured the leadership and facilitated the shift from 'beneficiary' to 'right holders', and from individual to collective rights. This resulted in the formation of the Viklang Parivartan Sangathan, a block-level advocacy group.

Jeeviben's story illustrates the significance of these initiatives.

After Jeeviben came in contact with Aatapi through a field worker who informed her about her entitlements as a person with disability, there was no stopping her. Aatapi became a part of her life.

When Aatapi delved into the lives of people with disabilities in four villages of Jambusar block, Bharuch district, they found these people resigned to a future with little promise, unaware of their entitlements or the public resources and services they could draw on to live more fulfilling lives.

Aatapi enables single women—widowed, unmarried or abandoned—to find the path to dignity through leadership and livelihood development.

She found the courage and will to venture out of her self-imposed boundaries and venture beyond the four walls of her home.

Jeeviben's opportunity to 'stand on her own feet' came when Aatapi organised a month-and-a-half training programme in tailoring. She participated in the course with zeal and diligence. Despite the daily hardship of travelling to the next village, which was 5 km from her own, she completed her course. She and other young women with disabilities from her village supported each other.

Jeeviben applied for a sewing machine from the Department of Social Defence. (Social Defence Directorate of Social Justice and Empowerment). With the sewing machine, she was on her path to independence. She started taking small jobs from neighbours. Today, she earns an average of Rs. 25–30 per day. More significantly, she contributes financially to her family.

But Jeeviben had bigger dreams. Observing the success of self-help groups in other villages, she took the initiative to organise the women of her village into a self-help group and motivated them to save money. She started attending leadership meetings and other training programmes for people with disabilities organised by Aatapi. She became an active executive committee member of Viklang Parivartan Sangathan.

She says of her leadership initiative, "I feel very good to receive everyone's support and love… that gives me the courage to take on new challenges." She is a respected member of her community now.

Aatapi helped her in securing a low-interest loan from the Bank of Baroda through the Joint Liability Group, amounting to Rs. 25,000. The other members of the group put their full trust in her. She repaired her house with the help of this loan. Her father, her brother and his wife are very proud of her achievements. Her relationship with her family has improved. She has won the respect of family, friends and others in her community. Life is no longer a never-changing dull shade of grey, but sparkles with the colours of joy.

Like Jeeviben, there are several others who are realising their little dreams. As quiet and shy Ramanbhai Jadhav, who had been attending leadership training programmes, had exclaimed, "I've wanted to do *garba* since childhood, but this is the first time I danced! I am no longer a prisoner of my handicap."

Single but not Helpless Anymore

Just as physical handicaps limit a person's ability to lead a fulfilling life, social handicaps undermine a person's dignity and rob them of their ability to live with their heads held high. The plight of single women—widowed, unmarried or abandoned—in our society, especially in a rural setting, is pitiable. Laxmiben's simple story will help us understand the power of intervention, which enables them to stake a rightful claim to family property, and access enabling and supporting government schemes and livelihood opportunities to develop their potential as entrepreneurs.

"We were a small happy family, my husband and two children. Suddenly, my world collapsed. My husband died of a sudden illness. I was only 40 years old then. This was just the beginning of my trials. I lost my young son to an accident a few years later. We became a two-woman family, my daughter-in-law, her two children, and me.

"We had a small agricultural land. We lost that when the canal was constructed in our village under a government scheme. The burden of survival weighed us down. Neighbours harassed us. Vendors took advantage of our situation. My daughter-in-law and I worked for a brick kiln where we were paid a meagre Rs. 1 for lifting 10 bricks. There were days when we had no work. My daughter and son-in-law helped us out with food doles.

"Aatapi came to our rescue. With their help, we applied for '*niradhar vrudh*' and '*vidhwa*' pension ('destitute elderly' and 'widow' pension). Three years later, we received the pension amount of Rs. 20,000. With this amount, we bought buffaloes. Aatapi helped us use available resources to our advantage through training. We are now able to run our house from the income we get through milk production. Now, my old parents, too, stay with us. Our status in society has improved."

Seven-year-old Aatapi Seva Foundation began its development interventions in the Jambusar block, Vadodara district, in a spirit of partnership with the community, with the dynamic support of TML Industries Ltd. Its focus was to enable community partners to strive towards a life lived with dignity and confidence. The models of change are initiated in the areas of agriculture, empowerment of women, persons with disabilities and quality education.

Initiated in four villages and 300 households, Aatapi's reach now encompasses 3,500 households in 20 villages. This is being extended to 31 villages with collaborations from multiple institutional partners. The journey has now begun towards comprehensive development of these villages.

Aatapi's work with women farmers recognises and reiterates their role as farmers. This has been achieved through financial inclusion: micro credit and bank linkages, admittance in farmer groups, exposure to scientific best practices, access to resources, creating forums of interaction between men and women farmers, leadership training, and representation of women farmers on the Executive Committee of Farmer Organisations.

But what all farmers value the most is the introduction of climate-resistant agriculture techniques that enables them to overcome the challenge of saline soils, especially in the Jambusar block.

Reliable and timely financial support has saved many farmers' families from the vicious cycle of high-interest loans that were a result of borrowings from private moneylenders. The financial support was utilised not only in enhancing agriculture practices through purchase of timely inputs, but also for redemption of mortgaged land, renewal of annual land contracts for farming and repairs, and building of homes. This modest contribution to the 'family kitty' by 600 female farmers has grown to a sizeable Rs. 2.25 crore from 2011 to March 2016. The recovery rate was 98 per cent. This speaks volumes about the sincerity, dedication and significance of women farmers.

Winning medals is secondary. The Khel Mahakumbh, the sports meet for the differently abled, provides an opportunity to build confidence and camaraderie within their special group.

Jeeviben applied for a sewing machine from the Department of Social Defence. With the sewing machine, she was on her path to independence.

The Path is Made by Walking On It

When the Big Fat Indian Wedding is Sacrificed for a Social Cause

There was no warning of the heavy rain or the floods; the 2014 floods were the worst in the Valley's recent history. Over 400 people were killed and hundreds of thousands were rendered homeless in the Kashmir valley, refugees in their homeland. Months passed. The flood-affected families were losing hope of any permanent solution.

Preeti Shroff, sitting in faraway Mumbai, did not know this flood would change her relationship with Kashmir. From being a tourist to this paradise on earth, she has become involved in the rebuilding and revitalisation of Kashmir in a small but significant way. "When my son, Chaitanya, got married three years ago, he and his wife made a commitment. They decided that they would like to utilise all the money that would have been spent on a 'big fat Indian wedding' for a meaningful activity. My daughter-in-law, Shivani, who had a strong connect with Kashmir, felt we should do what we could to help the flood affected families. We started with relief distribution of basic essentials such as blankets, utensils and food supplies. Shivani went to personally oversee the distribution. She realised this was just a needle in the haystack of needs. The people had lost what had taken a lifetime to build. They needed homes and livelihoods to restore their dignity and rebuild their lives.

"I went in April 2015 to see what we could do on a sustainable basis. I thought that Kashmir's rich craft heritage and my experience with handicraft and hand-skills (with the C.C. Shroff Self Help Centre) would be an appropriate entry point. I have not made much headway in this sphere as yet, though I did one skill training workshop with 22 young girls. I am still an outsider, with limited local contacts and little credibility. It will take some time, perhaps a lifetime, to be an 'insider', to be accepted. I am trying to flow with their fears and aspirations.

"Building homes was a pressing need, so I began to look at what we could do for this. How would the experience we had in community work, transfer to building safer, affordable and comfortable homes for them?

"I realised Kashmir, like the rest of India, is many regions, religions and cultures in one state. It is surrounded by troubled regions, rife with unrest and separatism: Afghanistan, Swat region of Pakistan, Xinjiang of China and Tibet. The people yearn for stability. Their work days are not assured. Life is 'normal' for an average of 180–200 days a year. Things can shut down without notice. Naturally, they aspire for government jobs to be assured of a regular income, and seek government dole for sustenance. Sixty per cent of the youth is educated, 70 per cent are drug addicts. People feel used, uncared for, trapped between two nations that regard them as a territory and not a people."

Shivani Shroff went to personally oversee the distribution.

"As I walk I will make a path," says Preeti Shroff. The 2014 floods have been the beginning of a slow but steady relationship with Kashmir.

Preeti narrates the story of a troubled Kashmir.

"The ground reality has many nuances that I have yet to understand. But people everywhere, you realise again and again, are intrinsically good. If our work rekindles their faith in the country and fellow citizens, perhaps a beginning will be made."

Preeti and her team's efforts over the past 15–16 months have been a little like the game of hopscotch. Picking up the marker from the square that lands at their feet and beginning from there. She looked at reviving a school without teachers in Jammu, but that did not move forward as the village had to be evacuated and shifted as it was landslide-prone. Next, her team enabled people to build homes from funds available through the Indira Awas Yojna. In addition, some supplementary funds were provided from their resources. Drawing on the local-economical-quick-assemble designs they had developed at Agrocel, her team focused on building toilet blocks under the Swachh Bharat Abhiyan. The toilet blocks cost Rs. 15,000; four blocks can be assembled in a day after the bricks have been precast. The design and technology have been locally adapted as cement is expensive in Kashmir and skilled labour is not available. Two local urban youth have been trained in the technology and groomed as entrepreneurs. These youths have, in turn, trained local labour. About 133 toilet blocks were constructed in Sopore, 35 miles from Srinagar and Murh in Jammu.

Preeti Shroff

A toilet block under construction. Drawing on the local designs developed at Agrocel which enable quick assemblage, her team focused on building toilet blocks under the Swachh Bharat Abhiyan.

They have also designed model houses with a noteworthy improvement on the safety factor, specifically the roof design, which was high on maintenance and also responsible for crushing families during the disaster with its sheer weight. The work on building 135 houses in Udhampur under the Pradhan Mantri Awas Yojna, coupled with toilets blocks under the Swachh Bharat Abhiyan, will begin soon.

Through Agrocel, Preeti and her team have also begun working with local farmers in the Jammu and Kashmir region to develop sustainable practices and market linkages. "Even developing the right packaging can result in better prices. Their apples are better than those of Himachal Pradesh, but they don't get a good price because they reach the Delhi markets almost battered. We hope to work with farmers in this direction in the next season."

Preeti sees her task as introducing new and appropriate skills in the region, finding appropriate ways to make use of local skills, developing new markets and enabling people to make the shift from apathetic takers and receivers to entrepreneurs.

We asked Preeti how many years she would give to Kashmir. "At least 20 years, that is my promise to Kaka. It is only over an extended time that the 'hardness' begins to moisten and the seeds of change start to sprout. Sometimes, maybe not. There is always hope. And Dipesh's faith. As I walk, I will make a path."

This is Our Company

A sense of ownership and *apnapan.*

A company's reputation is impacted by every decision, every act. It is how the company's customers, competitors, community members, even strangers, perceive it. It tells us about how and how much it contributes to the industry and to society in a wider context. It is also a reflection of how people within the company feel about working there. Here are some excerpts from voices from the employees, the industry, consultants, neighbours and contractors.

It is Not Loyalty; *It is Love.*

Sustaining the Legacy of Care

Though retired, their bonds with Excel have not been severed.

"It's not just loyalty for Excel. It goes much beyond that… **it is love**." D.B. Mehta corrects us at a freewheeling discussion with Excel's senior citizens. "We have many families where three generations have worked for Excel. Excel was not the best paymaster in town, but it was the most rewarding company to work for."

"Man lives not by bread alone," chimes in C.A. Mehta, the poet of Excel. "It was the meaningfulness, not the money that bound us to Excel. Fearlessly, with the 'licence to make mistakes', we sharpened our learning and mastered our weaknesses. We were the team that learnt to imagine the unimaginable by the simple act of writing the most audacious idea on a brainstorming wall."

D.B. Mehta recalls: "Kaka was a matriculate but had an amazing understanding of chemistry. The taken-for-granted, day-to-day experiences of cooking were the vehicles to explain complex processes to the uninitiated."

"'Observe your wives and mothers cook,' Kaka would advise. 'It is love and attention to details, not recipe books that make a finger-licking meal. A housewife can tell whether she has added salt to the dish just from the aroma. The right heat, just enough oil, the combination and balance of spices, the colour, the texture, the fragrance… this is what makes a perfect dish.'

"At Excel, we were 'cooked' with the flame of love," Marzban adds. He remembers the many nights on-site when Kaka would come with a plate of biscuits or fruits for everyone, and how he would come again, later in the night, with an armful of blankets to quietly cover those that had eased their tired bodies into a horizontal position on whatever surface they found.

The incidents are countless. Kaka taking care of C.A. Mehta's children, entertaining them with a movie outing when C.A. was away at the site. A holiday and work trip for C.A. Mehta and his family with accommodation and a car at his disposal when he could not afford to take his children on a vacation. A posting at the Bhavnagar plant site near his father, when his father needed his attention. A watchman's son being allowed to learn while he earned…

Marzban speaks again: "Kaka taught by example. Deeds create a culture, not words. Kaka was there to give a helping hand to a labour unloading a delivery truck. He bent down to clear the mess on the floor and stood by to hold the door for an employee." For Marzban Patel, this was what made the experience at Excel unforgettable; this was the energy that made people excel.

But Marzban is the Arjuna today, asking the difficult questions. He is proud of Excel, but worried about its legacy. "Organisations tend to forget basic questions, like why they exist. They need to ask: 'Why are we in business? Is work still about joy and achievement, of fulfilling a social need, or is it simply about earning a living, efficient production and generation of wealth and more wealth?' At 75, Excel must not simply add years. It must revisit its founding vision. It must find the Krishna within to persist with the dream and the chosen direction even when the '*kurukshetra–dharmashetra* (the battle of challenges and conflicting interests)' pushes it elsewhere."

Gosalia, a stalwart at Excel who has had the opportunity to work with all three of the founders—Papa, Bhai and Kaka—has similar concerns about Excel's future. "We must continuously strive to keep our core intact through a stimulating work ethos that will sustain and inspire the new generation. Sustaining a legacy in a multigenerational business is a dynamic process. Being proactive and positive is the way forward."

The challenge is to build something that outlives you.

From left: **Dipesh Shroff (MD), Prakash Shroff (ED), Ninad Gupte (Jt. MD), Jagdish Naik (Director), ECCL.**

Kailash Dabholkar, CFO, Excel, in a lighter mood.

Fron left: **D.B. Mehta, Ashwin Shroff and C.A. Mehta.**

Bipin Jha and Maya Gandhi.

Mein Excel ka Certificate Hoon!

Spotting Opportunities, Polishing Talent and Moving Ahead

"A one-room *chawl* house and a few small potted plants if the space permitted… I could not dream beyond that." Dattaram Mande recalls his early years in Excel and life in Mumbai.

"I am an artist-poet type of person and longed for my *gaon* (village), but I had no land and no opportunity there. I could not complete my schooling because of economic compulsions.

"My family had been compelled to leave our corner of the earth and its blue sea, sun-kissed beaches, mouth-watering delicacies… the alphonso mangoes, cashew nuts, kokum, coconuts and prawns. We had to exchange it for the *bhagadodi* (hustle-bustle) of Mumbai."

"I joined Excel as a worker in the Celphos plant. They noticed my sincerity and honesty, and I was 'promoted' as safety attendant. I channelled my creativity in making beautiful labels and signs for the chemical containers in the plant. My next rung was first aid. The doctors thought I was good, so from 'worker', my status improved, and I joined the rank of 'staff'. The highlight of my life was participating in the annual drama performance. It gave me a chance to hob-nob with the '*saab log* (the senior staff)'. My talents were noticed.

"Then Lote happened and changed everything. Excel wanted to enlist locals from their staff who had the potential to take on a basketful of responsibilities to develop this lone plant in the Konkan region. I volunteered to go and was lucky; I was selected.

"The training at Gyan Prabhodhini transformed me as a person. *Lote mein acchhi* responsibility *mili, acchha kaam mila, gaon mein sab pehchan ne lage, sanmaan mila.* (In Lote, I was given responsibilities, interesting work, and everyone in the village recognised me and respected me.) I never felt like a '*chhota aadmi*', a lowly person, again!

"My impossible dream came true. I saved money and bit by bit, built my own house. I bought a large plot of land in 1987 for Rs. 12,000. Today, its value is a few lakh rupees. Though I am retired, I earn as much as my last salary from rents I earn from the extra blocks I built on my land. My training at Excel taught me planning and management.

"Excel is still my family. I am invited to all their family celebrations. I am an active member of the Lions Club and devote my spare time to community work. If I had stayed back in Mumbai, I would have been a *kida*, an insect, jostling in a one room *chawl* with my brothers and their families.

"*Mein* Excel *ka* certificate *hoon!* I am a certificate of Excel's goodness. Chance *mile toh ek aadmi apne chaand par pahonch sakta hai…* (Given the opportunity, any individual can realise his dreams.) There are many stories like mine. Some were encouraged to study and, today, run their own business, others have had the opportunity to work in their areas of interest. Employees have been given a helping hand to tide over their difficult times…"

"*Mast company hai hamari* Excel! Life *ban gayee!*" "(It's an amazing company… our Excel! It redefined our lives!)"

Dattaram Mande and his wife in Lote.

An Excelite's Adventures

From Cyclones to Waste Treatment to Gardening

At the age of 75, Ganpat Khanwilkar celebrates his birth year with that of Excel Industries. He is a veteran Excelite. Now, after over 38 years of service at Excel, he recalls his adventures with the company and his expertise in waste management, including making compost (Excel's brand, Celrich), which made him a national and international traveller!

Kaka, centre, with veteran Excelite Ganpat Khanwilkar, to the right, his wife, to the left, and son Eknath Khanwilkar, standing behind.

He joined in 1968, moving to Amboli after three years to help with the manufacture of Phosphorus Pentasulphide. The formula 'P2S5' rolls easily off his tongue, though he has not been in touch with the chemicals since he retired. But his passion and love remains with 'Celrich', a rich organic manure that is a by-product of composting waste. He learned the usefulness of Celrich under Kaka's guidance.

In Andhra Pradesh, the cyclone struck in 1977.

"Kaka asked if we could help. Excel sent seven of us with equipment to help fabricate homes in 11 villages, where we worked for six months," he recounts. While they ate, the swirling sand often spread itself over their food. They had to be careful of animals, attracted by the dead bodies of the cyclone victims. Many volunteers just ran away.

He worked right through the Mumbai riots, the earthquakes in Latur and Kutch, braving the waste, which included corpses. Celrich went with him even to Muscat, where he conducted training for over two months! He talks about a critical time in Mumbai.

"Municipal staff workers were on strike and waste dumps were becoming unmanageable. Deputy Municipal Commissioner Khairnar sought Excel's urgent help. Kaka, in an unusual gesture—albeit quite characteristic of him—offered to convert the city waste into compost at Excel's Amboli Factory. Truck after truck of waste was dumped at Amboli. We heaped the stinking waste five feet high, with the help of loaders. We sprayed the heaps with slurry that was made with cow dung and other ingredients, and pushed pipes into these heaps to help it percolate through. Every seven to eight days, we churned the heap, checking the temperature, which had to be between 80–90 degrees. Then everything was sieved by machine and packed into 50-kg bags."

Khanwilkar had been successfully using Celrich to boost the growth of plants in the area. This ability came in handy later.

"When my wife fell ill, Kaka had her admitted to a hospital in Bhavnagar, made arrangements for me to go there too, and gave me quarters nearby. Kaka had told the authorities that I had used Celrich to help plants grow, so I was given work in the hospital garden, to tend to plants. My wife was hospitalised for seven months, and I could be close to her throughout. Kaka made sure all the expenses were taken care of."

Working with waste is a taxing, distasteful job. Did he ever feel troubled about it? Khanwilkar has one answer that answers all questions. "I always told my colleagues that this is our company, and *our* honour is at stake if we let it down."

The first off shore assignment of Celrich was in Muscat. It was Ganpat who was given the responsibility to go there and train the plant operators.

In the Excel office in Jogeshwari, Eknath Khanwilkar, his son, has been working for 28 years in the finance and accounts department. This father–son employment situation is not unusual… a reflection of the family feeling on both sides.

Snippets from On-Site Conversations

"All with Excel's support"

"I became my village sarpanch, and now I do community development work in my village. All with Excel's support!"

Vijay Kate, Worker, Pharma, Lote, 21 years in service

"*Mala abhimaan ahe*"

"I am only a Class 4 pass, but I have learnt to work with computers. Excel has given me self-worth and a standing in society."

Ravindra Bait, Plant Operator, Lote, 21 years in service

"Excel values your expertise."

"Excel tumhare merits ko importance deta hai. Education kaisa bhi ho tumhara, fiking ka kaam dene ki koshish karte hai. Excel mein harassment nahi hai. Politics nahi hai."

Vivek Narayan Joshi, Roha, Accounts Department, 30 years in service

"Easy communication with bosses."

"Sabhi friendship mein rahte hai, saab or worker aisa difference nahi hai. Whenever we have any difficulty hum aapne sir ko freely bol sakte hai."

Subhash Naik, Operator, Roha

"*Bahut achha* company"

Bahut achha company hai. Meri bimari mein bahut help kiya. It is a good company. Excel helped me during my illness.

Bhagwan Tukaram Lad, Roha, 37 years in service

"No Boss*giri*"

Boss log bossgiri nahi dikhaate hai. We can talk to them about our problems anywhere, even in in the passageway.

Subhash C. Naik, Operator, DETC III, Roha, 20 years in service

"The 180-degree difference"

"I retired four years ago, and since then, I have been working for another industry. There is a 180-degree difference in the work culture. In my present job, money is the only denominator, the only value. People are treated as a commodity, another raw material. Excel cares for the work-life balance of its employees. They think of everything: a person's career, job satisfaction, his home, family, children, health and social life. At Excel, employees are not threatened at the smallest mistake. 'Nikaal dungi!' is never used as a tactic to control employees. This job security and kindness sometimes makes employees complacent. I think a little bit of the stick approach is required."

Pramod Butala, started as Chemist and retired as Chief Manager, 37 years in service

"EXCEL was a temple for me."

'I spent 22 years of my working life with EXCEL. I never felt I was working for an employer. I felt it was my duty to carry forward the Excel philosophy wherever I went, in everything I did.'

K.P. Rajan, Personal Assistant to G.C. Shroff

"We are ever fresh."

"But yahaan, we are ever fresh, daily grind ki drudgery nahin hai."

Amol Kerkare

"It was the proudest and happiest moment of my life."

"When I completed years of service I was felicitated at Excel. Excel called my entire family."

Sanjay Yashwant Gharat, PIP Dept, Roha, 23 years in service

"Flat organisation"

"Excel is a 'flat' organisation. Any problem and you can meet the top boss."

Rajkumar Korde

"Excel encouraged me to develop my hobby."

"I was encouraged to sing during our annual functions and other celebrations. Mujhe bahut promote kiya Bahar competition ke liye bhi bheje the."

Vivek Narayan Joshi, Roha, Accounts Department, Medical VRS, 30 years in service

"We are people"

"Excel knows us as people, not just as employees."

Nitin Joshi

"Excel changed me."

"Excel changed the way I was, especially after I went through a leadership training. I am my village mukhiya."

Bhaskar Amre, Lote

"Elastic *aur samajhnewali* management"

"Human being ke liye ye company asaadharan (unparalled) hai. Trust hai, respect hai, aadmi ka value usko milta hi hai. Management ka approach kabhi badla nahi hai, koi bhi situation ho, aur konse bhi level ka worker ho. Ek healthy-friendly mahol mein sab kaam karte hai. Bahut elastic aur samjne wali management hai. Excel's management is flexible and understanding. Kabhi problems hote hai, workers demand karte hai, par management ki samajhdari ke karan kuch tootta nahin hai."

Prahlad Krishnaji Bhate, Ex-Excelite, Roha, 38 years in service

"*Jeevan ek anand, jeevan ek khel*"

"Our team has had the honour of playing up to the National level. Like Kaka, Ashwinbhai inquires about us like family when we travel for a game."

Excel Kabadi Team

"*Apnapan and nayapan*"

"Do bahut hi achhi baat hai yahan. Saab ka apnapan and kaam mein nayapan hai."

Rahul A. Redij, Sr. Executive, Engineering and Services, Lote, 20 years in service

Voices and photographs are representative of some of the several Excelites we met.

Until You Give, You Won't Get…

Women amongst Men: Professionalism in the Workplace

The women in Excel's team are a formidable group with a voice of their own. Often, women have to overcome all kinds of challenges in male-dominated sites. Excel's Lote site boasts a lady who is a member of the Sexual Harassment Committee.

Sridevi, who came here from her native Kerala, is a microbiologist. Her husband works in a company close by. She has been in Excel for 11 years and finds the work environment comfortable.

"The predominance of men does not worry me, since I have known the people for so long, and they treat me with professional respect."

Snehal Jadhav, the receptionist at Lote, confirms this feeling of secure comfort.

Sridevi adds another dimension that signals that you need two hands to clap. A satisfactory work environment demands commitment from the employees and the management. Responsibilities and rewards are two sides of a coin. You cannot have one without the other.

Her husband has greater pressure in his job, but she understands this. While she appreciates the comfort of the working conditions here, she also makes critical observations. "I think Excel needs more professionalism, especially in a market with fast cycles." She is willing to give that extra effort for the company to be more productive. "This is what is needed. As Devi, the Goddess, says, 'Until you give, you won't get…'"

Her observations are candid. As a long-standing member of the Excel family, she cares enough to appreciate the good things while also suggesting constructive changes.

Vidya Degwekar was welcomed back to the company after a 16-year hiatus.

Sridevi and Snehal Jadhav, a secure and comfortable work environment.

Maya Gandhi is Excel's living Wikipedia. Having played multiple roles at Excel, she is a storehouse of the company's history.

These two young girls are members of Excel-Roha's safety team and have many awards to their credit.

Changing the Perception of Accountability

"Key Result Areas are Now Defined."

Jagdish Naik was earlier an outsider, a partner with auditors S.V. Ghatalia and Associates and is now Director and Corporate Adviser to Excel Group of Companies. However, he feels he was an Excelite very early on.

"I slip into the 'we' as if I was with Excel even then, because of the belongingness that I always felt." This 'we-ness' crops up as he talks about the events within Excel. He talks about the time when the Shroffs bought back their shares from the Tatas, with whom they had partnered for a good 30 plus years.

"The Shroffs and the Tatas matched so much in terms of their value systems, their transparency… this, I feel, is definitely a factor in making the partnership so smooth."

He remembers the grace with which the Shroffs accepted good advice, however palatable or not it may be. "Here is a participative management, where people are treated as assets," he adds.

"This 'we-ness' crops up as he talks about the events within Excel. Here is a participative management, where people are treated as assets."

Ninad Gupte, too, talks about the comfort of being in a senior position within Excel. His thoughts align with Jagdish Naik's. "We are never, ever asked to do anything unethical. Breaking the rules is out of the question, but bending the rules is not encouraged either," he says.

J. Naik responds to a general question about the attitude of today's youth, and the search for better opportunities, better salary packages, which may override their interest in working for a value-based company. "I used to tell the management that accountability pressure is very low… because of the 'hand around the shoulder' approach, people's comfort level is high. For some people, it would matter, to be in that zone. Then, a time comes when one starts looking at accountability too." He balances both approaches with his own experiences.

"It's easy to measure top lines and bottom lines of a company, but there is a softer side; of getting extraordinary work from ordinary people, so well seen in the Bromine plant in Dhordo. I went there in a jeep that was continually jumping over the terrible roads, where the BSF people registered names so that they could make sure the same number of people survived the desert and returned!"

He breaks into laughter at his remembrances.

"But the focus was never to make profits. It was more about reinforcing that porous border area with more movement, about providing employment to stop migration. When you become a witness to such things over 20 years, you realise how rare this company is."

Ninad remembers that in bad times, in the 1980s, people offered to take an unconditional 10 per cent reduction in salary. But the company resolved to return this amount with interest. Ninad was a beneficiary, even though at the time he was not with Excel.

Jagdish says, "Company culture should be very dear to young blood. The 'hand around the shoulder' and empowerment is there for them in Excel, but perhaps Excel too needs more systems."

Ninad says "We need to change the perception of accountability. If you bring in systems to do things more efficiently, then the culture and the importance of the company can change. You don't completely bind people with systems so that creativity is affected, but at the same time, you can't leave them to define accountability on their own.

"In the last three years, we have increased salaries substantially. A substantial portion of the salary increase is in the form of performance incentives, wherein the Key Result Areas (KRAs) are defined."

There seems to be a need for a course correction. More accountability needs to be brought in, which is being done. If the company does well, everyone has a share in that. But work needs to be done for that, which is why the KRAs have been introduced.

"When one starts such processes, counselling is given to show that this is part of the company's checks and balances. For example, even Dipeshbhai's credit card comes to me for approval!" says Jagdish, laughing. "It's just a part of the system."

This is an eye-opening, even reassuring, precedent for all, at every level in the company.

Voices from Outside

Values Do Matter

I consider it a privilege to be associated with Excel Industries Limited, on the occasion of its 75th year—a very important milestone—of service to the Indian chemical industry.

I have been familiar with Excel for the last several decades. It is clear that Excel represents technological innovation, pioneering work in Phosphorus chemistry, a deep understanding of the Indian farmer and his needs, geographic spread, and unique passion for community development. It also stands for humility (to the extent of self-effacement), pride in the country, the company and its rich legacy, simplicity and the concept of a wide family: encompassing employees and other stakeholders.

I have enjoyed participation in the CSR Committee meetings as much as I have enjoyed the board meetings themselves. Excel has a full-fledged CSR team, working very actively (much before CSR became a mandatory requirement) in key areas such as agricultural innovation and crop cultivation best practices, animal husbandry, education and skill development, primary health, water management and women's empowerment. During each meeting, there are detailed discussions on each CSR activity and its community reach. To me, this is typical Excel: a very conscious corporate citizen.

It is not often that one observes the CEO of a company taking extensive notes while being in the audience at a high-level complex chemistry lecture. That this is typical of Ashwinbhai shows his passion for knowledge and innovation.

It is not easy or common for a company to exist, grow, thrive and be uniformly respected for 75 long years. That Excel has achieved this distinction clearly shows that even in a commercial and competitive global landscape, values do matter.

I wish Excel many more milestones of service to the society.

Excerpted from Rajiv Pandia's Message
Independent Director of Excel Industries Ltd
He headed Herdillia Chemicals Ltd
(later Schenectady Herdillia Ltd and SI Group).

Transparency, Compliances and Ethical Practices

My association with the Shroff family started from 23 July 1992, the day when Shri Ashwinbhai joined the board of one of our Nanavati Group companies as an alternate director to our non-resident director.

The formal association over the years grew into a relationship bound with similar values of integrity, morality and social consciousness of our families, culminating in 2002 when Shri Ashwinbhai invited me to join the board of Excel Industries Ltd.

Over the years, I have experienced the exemplary management style of the Shroff family, laying emphasis on transparency, compliances and highest ethical practices combined with philanthropy and social consciousness. As the corporate performance of Excel Industries Ltd grew, creating wealth for its shareholders, the company contributed equally towards the welfare of the society.

The philanthropy of Excel Industries Ltd and the Shroff family was rewarded recently with the Honourable Chief Minister of Gujarat, Smt. Anandiben Patel, awarding the Gujarat Ratna Award for excellence in CSR to Excel Industries Ltd.

Every board meeting has been an enriching experience as the agendas include items of compliances, CSR activity, innovations in technology, increasing diversity in product range, besides the discussions on the corporate performance. The transparency with which Ashwinbhai presents and discusses the corporate performance and projections of the company is laudable.

I would like to congratulate Shri Ashwinbhai Shroff, Smt. Ushaben Shroff, Shri Dipeshbhai Shroff, Shri Atulbhai Shroff and Shri Ravi Shroff on the occasion of Excel Industries' 75 years, the way they have guided Excel Industries Ltd, even in times of difficulty, with tenacity of purpose and achieved the excellent performance as we presently see, never forgetting the values of social welfare and philanthropy over the years.

I wish Excel Industries Ltd all the very best for the coming years. May it prosper and spread prosperity!

Excerpted from Priyam Jhaveri's Message
Independent Director of Excel Industries Ltd and
Director, Nanavati Group

My Excel Experience

Excel Industries Ltd is completing 75 years since its foundation and 55 years since it became a listed corporate. My pleasure at wishing the Excel team on this occasion knows no bounds.

As an independent Director on the board of Excel Industries for many years, I have seen two chairmen leading the company. I have also seen the demerger to create Excel Crop Care Ltd for addressing one segment of the agriculture market. The transition from one leader to next and the demerger were very smooth reflecting the culture of the organisation in general and promoters in particular.

The Shroffs have impeccable credentials as a business family. Their spirit of nationalism is reflected in most of the decisions guiding their business and social initiatives. During the time when 60 per cent of its business was threatened, the use of fair means to protect it cannot be underestimated. The family came out of the shock with flying colours in the shortest possible time.

The HR policy of the company is unique in its approach. It is a rarity in the corporate world to treat employees with so much care and love.

Over the years, the company law has made it mandatory for the promoters to involve independent directors in sensitive areas of management. The Shroffs have not only followed the mandated changes in letter but also in spirit.

Personally, I have gained a lot of knowledge and noble friends through the years of association with Excel Industries Ltd and the Shroffs.

May God bless them with many more decades of gainful contributions!

Excerpted from Ram Bhogale's Message
Independent Director of Excel Industries Ltd and
Managing Director, Nirlep Appliances

Society Before Business

Deepak Mehta has known Ashwin Shroff for more than 30 years. He has differentiated himself as a person with high respect for society, putting the good of society even before his business. His value systems have had a deep impact on the culture of Indian Chemical Manufacturer's Association (now ICC), with which he is associated in various capacities, including being its President at one time.

He has helped develop leadership in other associations too, be it Roha, Mahad or Chiplun industrial estates. Excel executives have been encouraged to participate in associations and take leadership roles for the benefit of industry and society.

"I have known him as unbiased and impartial. He is never in any controversial situation. He has always found time for new initiatives and the common good. I have never seen one-upmanship in his behaviour.

"He is good at presenting the right framework to government; we at FICCI and ICMA leave it to him to present the scenario of the chemical industry in India, abroad. We leave it to him and agree with his suggestions.

"He has a way of taking everyone along, being high in his ideal and modest in approach. Relationships with his colleagues and workers are family-like.

"Responsible care is a new buzz word but he has practiced it for a long time. Environment, skilling, leadership and networking are his strengths."

Excerpted from a conversation with Aruna Lakhani
Deepak Mehta
Managing Director, Deepak Nitrite Ltd

On the Right Side

The chemical industry has been going through many changes, with increasing focus on the environment. It is the people like the Shroffs who have always been on the right side of doing things in the proper way. It is something that is truly creditable. They choose to manufacture chemicals that have directly contributed to the betterment of the society. Water and waste treatment are important to the Swachh Bharat Mission. The pharma intermediate space is also very important for our country.

CSR activities are a compulsion now, for profitable companies, but this family has been doing it since much earlier. In Kutch, a lot of work is being done to encourage rural women to make handicrafts through their self-supported organisations. Ashwinbhai was the recipient of ICC's Prestigious Life Time Achievement Award in the year 2012.

Over the years, I have come across a lot of senior people in Excel and have found them to be absolute professionals, very dedicated, loyal, knowledgeable and hardworking, and in general, I find the employees in Excel to be very self-motivated and disciplined.

It is very creditable that the entire Excel Group is together and cohesive. Ashwinbhai is a gem of a person, calm and understanding of situations. I recall travelling with him in the car while he was talking to his daughter and son-in-law who live abroad, and I could see his love for his family.

My interaction with Excel Industries and Ashwinbhai Shroff started when I started Alkyl Amines Chemicals Ltd in 1982. Even though we are a supplier of a very small quantity of chemicals to them, the relationship with them has been very fruitful and educative.

Yogesh Kothari
Chairman and Managing Director, Alkyl Amines Chemicals Ltd

Nurturing People

Although I came to know about Excel Industries in the early fifties as an articled clerk of S.V. Ghatalia and Co., who were their auditors, my association was limited till I met Ashwinbhai Shroff.

Excel Industries is a well-known and respected company. Mr Govindjibhai Shroff, who was heading the company then was a highly respected person in business circles. I came in contact with Ashwinbhai during my association with the Indian Chemical Council.

The Shroff family is responsible for making Excel Industries a company with a reputation for ethical business practices, besides taking care of environmental and safety concerns inherent in the chemical industry. Under the management of the Shroff family, Excel Industries has grown as one of the best chemical companies focused on building an organisation that continuously innovates and develops products for the benefit of the community.

As an active member of ICC and being a past President, Ashwinbhai has made a significant contribution to the chemical industry. He and his wife, Ushaben, have invested considerable time and effort in building capabilities and promoting inclusive development of rural communities that help people to earn a respectable and enhanced livelihood.

As a person Ashwinbhai is simple, unassuming, quiet and very friendly.

Devendra Kothari
Independent Non-Executive Vice Chairman of Kansai Nerolac Paints Ltd

Green ChemisTree and Green Engineering

Green ChemisTree Foundation is a Section 8 not-for-profit company, established in 2009 with the vision to accelerate the implementation of 'Green Chemistry and Green Engineering' based practices by the Indian chemical industry for environment protection and sustainable development.

GCF's association with Excel Industries' values and vision got ignited after an informal meeting with Shri Kantisen Shroff (Kaka) in 2011. We are honoured to have shared with Kaka our vision of a 'green' Indian chemical industry by 2025, and his blessings came to us in the form of a postcard, which continues to be our source of inspiration. Excel Industries, since then, have continued to be a committed partner on-board in nurturing the cause of 'Industrial Green Chemistry' in India.

Excel Industries Ltd has been the first chemical company to financially support the '**Industrial Green Chemistry World (IGCW)**' Convention, a dedicated industrial event organised every two years in Mumbai. It has also been one of the first CSR partners with GCF for promoting the cause of green chemistry amongst students, colleges and chemistry teachers.

Ashwinbhai Shroff's extensive network and committed ideas have collectively contributed to our growth and outreach in such a short span of time.

Together with Excel Industries Ltd and GCF, we have been able to impact the Indian chemical industry's green chemistry and green engineering deliberations.

Green ChemisTree Foundation Outreach has expanded the understanding of 3,000 chemical industry stakeholders since 2009 about **green chemistry** and **green engineering** and is connected to over 50 global experts and speakers willing to invest their time and efforts to spread the understanding of green chemistry in India.

Along with many other initiatives, the ChemisTree-of-Life was launched. This was a public campaign, inaugurated by Ashwin Shroff in January 2015, with the objective of sensitising the younger generation towards the importance of chemicals and their contribution in our daily life.

Krishna Dave Padia
Promoter of Green ChemisTree

"You are Never an Outsider"

Dr Prashant Patwardhan, journalist and President of the Lote Parshuram Industry Association

Dr Milind Gokhale, doctor, practising in Chiplun

Ajay Mehta, Secretary of the Lote Parshuram Industrial Estate

Prakash Deshpande, President of the Lokmanya Tilak Smarak Vachan Mandir

Shri Mohan Warankar, Shri Sambhaji Kadam, prominent in the educational field

Prashant Patwardhan: "I feel Excel is my company though I have never worked here nor owned any share in the company. Once you get to know Excel, **you are never an outsider**. You become part of the family. In the early days, this region did not even boast of a high school. The Industrial Estate came later. We could not provide the company even a 10th-standard graduate. Yet, Excel took 90 per cent of its staff from this region…the company trained and groomed them. Today, we can provide engineers and science graduates to Excel.

"In small and big ways, most managements today want to squeeze their workers, their suppliers, their contractors… They think only about themselves, but not Excel. Excel has been always fair to all stakeholders.

"Excel is the first to come forward when there is a social cause that needs support. Their assistance does not stop at the industrial estate or village level, but has benefitted several *taluka*s in Ratnagiri district. I would call them social entrepreneurs, business people with a purpose beyond profits.

"Excel has also been closely involved with women's self-help groups to regenerate interest in growing *nachni* and medicinal plants, which they did, on land that was earlier barren. Now, each year, the higher yields help in generating income for them.

"It's not only here in Lote. In every Excel site, the staff of Excel who know the company culture help to develop family relationships with the local people, wherever they are."

Ajay Mehta: "There are 180 industries in our industrial estate. But it is always Excel that we count on. It is not just Ashwinbhai… we have received unflinching support from all their officers: Gagangrasji, Jawdekarji, Patankarji… They are all are living examples of the Excel culture.

"When we started our Common Effluent Treatment Plant, CETP, Excel worked hard with us. They provided the experts and the expertise. They helped us do the necessary tests and research and make presentations to the concerned government officers. Our CETP problems are sorted because of them. Even when there is a safety issue in the estate, Excel is the first to come forward to help."

Prakash Deshpande: "Excel has supported our 152-year-old library on many occasions, for example during the 2005 floods when countless wet books had to be 'restored'.

"When we had organised an All India Sahitya Samelan, which was attended by several hundred guests, Excel pest-controlled the grounds to ensure that no snakes, scorpions or insects would sting our visitors. Excel folks also took care of the waste management, the leftovers and the disposable cups and plates."

Dr Milind Gokhale: "Excel and I are twins. In 1983, on the auspicious day of Guddi Padva, I inaugurated my hospital and Excel inaugurated their plant. I had the privilege to interact with Kakaji on several occasions. He is a very simple, down-to-earth person, concerned about the local people. He introduced smokeless *chulha*s in the region and even tried to introduce weaving to the women.

"Here, there are only 10 large scale industries. Excel is one of them. Normally, people are afraid of chemical industries; not so with Excel. Once you join, you retire with Excel.

"Thirty-five years ago, an Excel worker had chest TB. I thought my job was over after I had prescribed the medicines and certified that the patient was ill. But Prakashji, then plant manager at Lote, stressed the importance of follow-up and continuous interaction with the patient's family. He stressed that our responsibilities included periodically visiting the patient in their village to ensure that the person continue taking the prescribed medications properly."

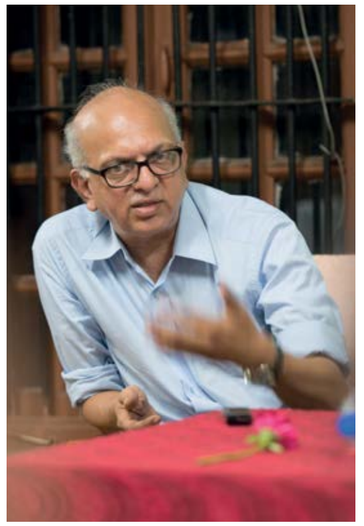
Shri Mohan Warankar and Shri Sambhaji Kadam: "Excel gave us the first table and chair for the school, Nutan Vidyalaya. They still exist and are used. Excel was always present, partnering in different ways for the growth of the cottage industries or the clinic or other ventures, so much so that parents wanted their children to do well in the school, so that they could be employed by Excel!

"Excel stands out from others because of the *parivar* feeling they have created. Everyone feels, **'this is my company'**."

Mr. Prakash Deshpande with Ashwin Shroff.

Mr. S. H. Budhwani with Ashwin Shroff.

Makarand Joshi, ex-Excelite & now an entrepreneur.

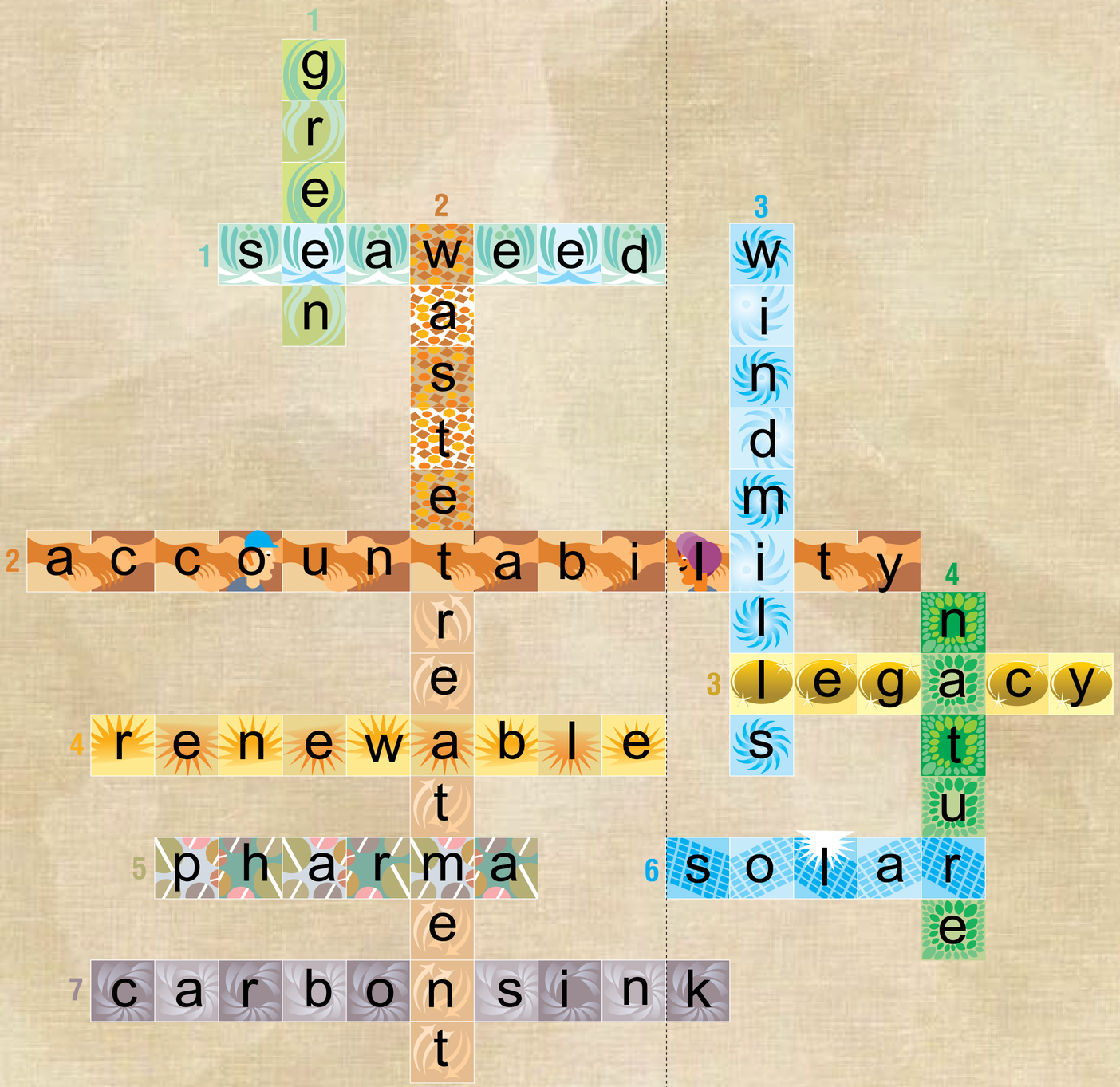


Dr. Milind Gokhale

Dr. Yatin Jadhav

Aajibai and her daughter-in-law. Aajibai supplies milk to the Lote Parshuram plant from the day the foundation was laid till date. Starting wirh one buffalo, she has thirty buffaloes today.

Clues to the Future



ACROSS

1. Marine plants and algae with potential as carbon sink: Excel's new experimentation with these.

2. A situation in which people are responsible for things that happen.

3. An inheritance or something that is part of your history, that remains from an earlier time.

4. A natural source of energy that is not depleted by use, such as water, wind or solar power. The way forward globally!

5. A company that makes and sells pharmaceuticals.

6. Relating to the sun: a source of energy that is becoming popular.

7. A reservoir that accumulates and stores carbon-containing chemical compounds. These can remove carbon dioxide from the atmosphere.

DOWN

1. The colour that indicates environment-friendliness.

2. Dealing with refuse: the activities required to ensure that it has the least practicable impact on the environment. A follow up to the Swachh Bharat Abhiyan. (2 words)

3. A building with sails or vanes that turn in the wind to generate power.

4. The collective physical world, including plants, animals, the landscape and other features of the earth.

The Family Business Paradox

Generational Changes: Ravi, Excel and the Family Business Network

The PwC India Family Business Survey 2016 observes that 75 per cent of Indian family businesses have grown in the last 12 months; 84 per cent expect to grow either steadily or quickly and aggressively over the next five years. At the same time, 56 per cent of Indian family businesses feel that the need to innovate will be a key challenge in the next five years.

Considering the implications of the statistics, we see clearly that while family businesses strive for growth, future directions will need to keep in view new trends and ingenious ways of defining and achieving goals.

What about transitions? Being handed a meal on a plate can be comforting, but what if the cuisine needs some modern zing for a demanding new palate? A fresh look at cooking methods is called for! Transitions from one generation to the next within family-run businesses can be onerous, fraught with resistance. This was an intriguing arena and became a focus of study for Ravi.

"I've invested a lot of time in understanding the **family** aspect of family businesses, what the global theories are, what it really means. I've wanted ours to move smoothly in Excel, so that it nourishes the business aspect and the business feeds back to the family." Ravi laughs. "Many professionals regard the term 'family business' as a paradox!

"Ten years ago, I became part of the Family Business Network (FBN). At first, I absorbed, learned, and then became actively involved with organising conferences across India and participating in them, where the **family aspect** of family businesses is discussed. Excel was also taken up as a case study. I've tried to keep an open mind to try and understand this theme.

"At first, you think your situation is unique to your family, but then you realise everyone's in the same boat; 70–80 per cent of the core issues are common, though different families may be at different stages in the journey. Generational issues, sibling rivalry, egos, personal ambitions… these are common to many families."

We ask him if he can illustrate this with an example from Excel.

He pauses.

"You know about the split in the family that happened decades ago. Well, I have tried to see how it was handled by the earlier generation. My intent is to prevent something like this in the future. Understanding the earlier generation's approach is important. They had a different upbringing, a different frame of mind and external environment, so their perspective developed accordingly. My standpoint developed differently, since my context had changed."

Vision, tradition, innovation, succession: the whole ride!

For Ravi, learning was quick in Anshul, because he was the one taking decisions for the turnaround. He had returned to India from Boston to begin work in a loss-making unit and a working culture that he realised would need changes.

"To add to the losses we were making, we also had to face competition from China and its cheap products. My focus had to be on financials, since the question was not only of survival, but also of growth. It was a swing from the earlier times of enjoying profits before 1991, which is the time when my father and his generation developed their skill sets and enjoyed the close support of the family. I quickly realised that my technical background wasn't enough; I had to understand the language of finance. That was the biggest difference between my father's approach and mine; looking at it from a 'finance first' perspective. I felt we needed to focus on financials and revolve the company's activities and operations around making the financials better."

We ask if he could put all his learning into a nutshell.

"One question is, 'Can I make the best product in the world?' The other is, 'Can I be the most profitable company in the world doing what I do, and then do whatever needs to be done for that?' I think we have to look at today's world and engage with the second question."

In the context of post-independence India, where focus on economic self-sufficiency and establishing India's credibility were primary, the first question was fundamental. Translating his learning and transferring it from Anshul to Excel needed many bridges to be created across the generational gap, but he felt he needed to take this on, however long it took.

"It took long because there were so many dynamics involved. It was a test of patience for many people, including myself. It meant persisting with a change that I thought was fundamentally required. The common thread here was Dr Patkar, who spoke the financial language in Anshul, and helps us extend it in Excel."

Assimilating and blending into the company using different tools and means of communication was crucial. This would make it possible to create acceptance from his father, all the way to those in operations.

"Within the family, communication plays an extremely important role. How things are communicated, the body language… I would see this as important, especially if I had to take responsibility as a family member."

How could communication be sustained in the family?

One very interesting development is that Ravi; brother Hrishit; and their cousins Chaitanya, Pratik, and Paritosh have created an investment entity called Vitta Five (*vitta* from the Sanskrit word meaning 'wealth'). Proportions of their salary are pooled into this investment. For Ravi, the purpose of this is to create a common platform to stay communicably connected with family on the journey they traverse together, since all of them deal with completely different business environments and continue to develop different skills. Coming together to discuss this investment provides the opportunity for them to tune into each other.

Succession plans? Not formalised yet and not needed at the moment, since it's not a complex issue, unlike many other family-run businesses.

"Work responsibility is different from family responsibility. I may be good at my job, but does that make me a good family member by default?"

The Changing Tide: Humanism, Accountability and Numbers

Keeping People and Growth Graphs Happy

"Yes, we find the 'people' culture here very comfortable."

"My father is a true-blue Excelite. He worked here for over 25 years. Now I am working here, too."

"There are no exits for Excelites, only entrances!"

"Excel gives us the green light to try out new things."

We hear many such statements when the name of Excel comes up.

The comfort of job security is high in Excel, and these statements are sweet to the ear, especially these days, when numbers are top priority, even more important than people. But some questions still manage to pop up. Sure, in many cases, the comfort of job security and encouragement to experiment helps people to be bold and take initiatives. At other times, it may lead to complacency, even laziness.

How does one reconcile these? How does one balance humanism and accountability, and also *make numbers work?*

There is a Sanskrit mantra, which, roughly translated, reads this way,

"In every word, there is a mantra;

In every root, there is medicine;

Not a single human being is worthless or unfit;

But to know all this, you require a 'Yojak', an entrepreneur, who is a rarity."

This nugget of wisdom reflects the way Excel's leaders value their people, their company **family**. It directs the way they train, designate, encourage an entrepreneurial spirit and move ahead positively, even after **mistakes**. They tick people's strengths, rather than put crosses on their lack of experience or academic qualifications. Kantisen (Kaka) says of himself, "I have lived with failure after failure with just enough success to keep me hanging on!"

When Excel was still a modest-sized company, the management was simple: refer your questions to the man at the helm. The founder, C.C. (Pappa) had an easy camaraderie with workers, staff and family members. After C.C.'s passing away, younger brother Govindji (Bhai) took over. After him, younger brother Kantisen captained the Excel ship through rough times to new visions and growth, taking the company from Rs. 50 crore to 300 crore.

Between these three brothers, three people-oriented aspects were delved into:

- Know a person's strength;
- Ask how to contribute to the flowering of this strength;
- Celebrate the outcome, not necessarily the success.

Along with the freedom to let people flourish, there is also the risk of people using that freedom to slack off a little. However, this is accounted for. Dipeshbhai puts it succinctly: "Inefficiency may sometimes be noticed, and it may carve out perhaps 10 per cent from our profits, but we are willing to factor that in, in return for their loyalty."

And this is borne out, as Hrishit Shroff observes: "This goodwill and loyalty can be seen in 'firefighting' situations, when staff dedication is called for, and they respond."

In 2008, for example, at a low period in Excel's life, when China had triggered global price wars with its cheaper products, the employees were firmly with the company. Orders were scarce, and the employees knew what that meant. That year, with no prompting, they voluntarily gave up their HRA and uniform allowance, in solidarity with their company.

So, profits, yes, but not at the cost of the company's family culture. And this is important, because there is danger when policies threaten to overrun people. Along with this, ethics was always a primary value that both the family and the company were based on, because with such values, you may not win every time, but you never lose.

Armed with these approaches, Excel managed to establish itself as a committed, innovative organisation with a capacity for grooming people, meeting challenges head on, capitalising on rudimentary resources, and making good on promises first and considering profits later.

Today, Ashwinbhai is at the helm, with the **gen-next** of the extended family—sons Ravi and Hrishit, and nephew Chaitanya—already at work in the Excel Group. The Group has multiplied its turnover to almost Rs. 2,000 crore, more than a modest size. The workforce is bigger and spread across different sites. As Excel grew, the management style had to transition.

The 'hand around the shoulder' and empowerment needs to be coupled with more accountability, so that the company does better and everyone has a share in that.

How does one stay with the company values and stream into the present, 75 years later, keeping this huge workforce continually motivated to optimise growth? Many questions come in with the new tide.

Maya Gandhi—Manager, advertising and corporate communications, with Excel for over 27 years, talks of how Excel does not skimp on the numbers of consultants invited to support and strengthen staff performance for different areas of training. It happens whenever required and for all levels.

And so, it happened around 10 years ago too, when Dr Patkar, management consultant and author, brought his expertise to Anshul Specialty Molecules Ltd. Dr Patkar has now brought his experience to Excel in recent years. With him has come a multidimensional change.

Dhiraj Dangodra, who joined the company in 1975, saw these changes in Anshul, where the company went from generating losses to making profits. Kailas Dabholkar, who started in Excel over 35 years ago, working with Govindjibhai, is now the CFO. He talks about how the new system of business units (BUs) was set up over two years ago. Abhay Dandekar, part of Excel for over 23 years, who has worked with Kaka and is now head of supply chain management in Excel, affirms that Excel is on a new page in its history.

"We have the same goals, but the approach has changed. Earlier, there was a kind of departmental approach, to take care of a certain segment of the value stream. This was done in generalised terms, with a collective accountability. Now, there's a more clear-cut understanding of who is responsible and accountable for what, and what impact each one's actions will have on their function and on the business."

The very structure of the BUs made each person within it understand his contribution to the company at

each stage in its performance. The accountability of each person came by default, as a consequence of the system, since the impact of every action of the person concerned could be seen in the chain, leading up to the set targets. Therefore, each individual's contributions became transparent and vital.

This was a new form of functioning, and newness usually causes a certain jittery resistance in people because of uncertainty. In the early phases of the change, however, there were certainly questions.

Dabholkar talks about initial responses:

"*Yeh kya hai? Chalega ke nahi*? (What is this? Will it work or not?) We used to be sceptical, and we said it would take three months to adapt to this. But people took it up, and now we see real results… in the numbers. We take into account all factors such as budgets, requirement of funds, contingencies, and make the annual plan based on all that. The monthly reviews tell us if we are on track, whether we need to quickly change our focus, for example, to take quick advantage of changing market conditions. We can do all this because of good coordination and clarity."

Abhay has this to say:

"About four years ago, we were not in this position. If purchases were made, we could not confidently say when payments would be made. There was a certain nervousness in the market in dealing with our company. Today, our cash flow is very good; there is a surplus, no '*jhagda* (fight)' or surly faces between supply chain and finance people. Good cash flow always brings a smile to my face. Finally, numbers speak.

"I credit three aspects for this positive change. One is the responsibility and ownership at all levels. **Ownership of an action is different from functioning within the unknown devil: the system.** The questions each person asks is, 'What value addition will my action bring for my function in the department and the company?'

"Control brought fluidity, and monitoring cash flow and interest rates was the second aspect. The third was the collections by the sales and marketing teams, who can now give their figures clearly and feel confident about making collections by given dates."

The R&D department is a crucial part of the Pharma Division. R&D staff were invited to meetings with customers, and direct understanding of the customers' needs reduced the distance between them in terms of time and deliverables.

At some stage, the seed of ownership was sown. Abhay says:

"We began talking the **language of numbers.** Non-finance guys learning finance! For example, from understanding the stocks in terms of metric tonnes, now we understand the stocks in terms of rupees. We got a flavour of this in a session on understanding RoI—Return on Investment—that had us zapped. The language was different. From quantities, we began understanding the rupee correlations. That component was brought in for non-finance guys like me and many others. This is a business. The language of money is common to all departments and binds us together. And it is now an inter- and intra-departmental language.

"Earlier, people thought '*Arre, Hebrew mein baat kar raha hai*! (Man, they're speaking in Hebrew!)' But now, we all talk the same language, and coordination has become easier because there is a commonality, though we approach the work from different sides of the table. The earlier abstract quality has changed to greater clarity in the last two and a half years.

"Now, if someone comes up and says, 'My inventory needs to be monitored,' or 'I am feeling the pressure of lack of working capital,' everyone understands because of the transformation that has taken place. We hope this will continue and evolve, because the world is a dynamic place. Perhaps there will be a new mantra for success later; we don't know. I'm generally optimistic, because I see that in Excel, acceptance comes."

When the process began, Ravi was very conscious of people's nervousness.

"My key investment," says Ravi, "was in communication. I wanted to be personally involved in making sure, everyone understood the new changes that were coming. We planned a series of meetings to listen to people and express things clearly, a chance to contribute ideas and give value to what they said. We wanted to create ownership on suggestions they gave and the results thereafter".

Dabholkar ascribes the adaptive company culture for the quick acceptance of these changes.

"People in the company are lovely. There is an enthusiasm with which this works now."

Dr Patkar agrees:

"Systems don't perform. It's the people who perform. When I came into Excel, I found individuals in Excel were wonderful. They were accountable, loved the company, its culture, felt their responsibilities, were competent… but, all this was not getting translated into numbers and growth. Perhaps humanism was taking predominance over accountability. Also, a direction was missing. If you put iron filings on a paper, they will sprinkle randomly. Once you bring in a magnet, they will become aligned. What we have done is just bring in the magnet, so that the same people start functioning to generate results. The magnet is just a catalyst, to give direction."

Things began moving in favour of better numbers. Understanding numbers reflecting manufacturing processes, time frames and sales can be a tedious, page-shuffling task. So Bipin Jha helps simplify things. As Manager at Excel he structures complicated figures into colour-coded graphs, which makes it easier for Ashwinbhai and BU heads to understand figures at a glance. Figures are available in annual, monthly, weekly and daily formats, depending on the requirement. Finally, the complexity is reduced to just a single piece of paper, which defines the annual requirements for the company's economic value-add.

What transformations happened internally, within the people?

Dr Patkar talks about another important development. He conducted a programme away from Mumbai, across all hierarchies of Excelites, which included the Chairman. Dr Patkar remembers with appreciation that Ashwinbhai attended it regularly, with full attention and participation. The workshop was premised on the concept that each person has his strength, that 'excellence' or '*moorti*' within, but the mind obscures it by playing monkey tricks with us.

There is a Sanskrit *subhashita*, which, roughly translated, means:

"(The mind is) like a monkey, inebriated, stung by a scorpion and seized by the demon all at once. (When that happens,) you are seized with the dilemma (of uncertainty), do this, do that." That monkey has to be understood and tamed to let excellence shine forth.

During the four weeks of the programme (one day a week), Excelites worked on intra- and inter-personal goals and on understanding this 'mind monkey', and moved towards chipping away at everything extraneous, to arrive at the *moorti* within. This, for some, can have its impact.

"My wife was baffled by the changes in me. After so many years, we went on a family holiday, and nothing went wrong!" says Abhay with a laugh. "People also say my temper issues have resolved, and I have mellowed down. I no longer walk around with wrinkles on my forehead."

Excel went through this two-pronged approach of strategic planning, coupled with allowing people to introspect, asking themselves, "What are my peculiar problems? Can I identify them and find solutions?" The twin approach has been useful in bringing about transformation.

Positive things remain, such as the 'open door' way of functioning. However, the style varies between Ashwinbhai and Ravi.

Ashwinbhai's familiarity with Excel's plants, the people and their families allows him to address employees by name and offer constructive help and advice whenever it is needed. People can walk into his office if he is free, to talk about the company or their lives.

Ravi does not have the same familiarity with the plants, unlike Hrishit and Chaitanya, who spent years at the plants in Kutch and Bhavnagar. Ravi's door is also open, but people come in with information along with an 'overlay' of the person's understanding of that information. This can then be thrown open to be tackled by the team, where Ravi's presence may not be needed.

"Today, by design, I don't want to be physically available for every decision, so I am available on email or WhatsApp, at any time or in any geography, with minimum words. In this way, I feel that people get more freedom."

A famous Indian businessman observes:

"…in today's digital age, the significance of brevity in communication has only been amplified. This is probably because now, more than ever, our fast-paced lives require data, knowledge and insights to be provided in bite-sized capsules for quick assimilation and application."

Both styles are valid. The emphasis is still on people. The best way to 'make' managers and employees seems to be by creating in them a strong sense of ownership for their functions, and then, **judiciously putting the reins in their hands.**

"You can get all the services, buy land, get licences, but you can't buy motivated managers. You have t**o make** them," says Atul Shroff.

Seventy-five years is a long time for a company to weather ups and downs and to make it through decades of life-threatening changes, and still come out alive, healthy and kicking, with new products and ongoing, relevant research and development.

It's the people and their adaptability to new conditions that make this happen.

The Biology of Belief

Re-connecting with Nature's Systems: Seaweed, Waste Disposal and a New Greening

A hundred years ago, science came with penicillin in one hand and the atom bomb in the other. Chemicals started gaining prominence as instruments of development, and now it is difficult to divorce them from the soaps, toothpastes, cosmetics, packaged food, stationery and hundreds of objects we use and consume in our daily lives. If humanity is to move forward, we must see how chemicals can be used for positive outcomes in the world.

It is also often the case that after a long period of time and experience with new inventions and innovations, we look back and realise that there were some effects of which we were entirely unaware at the outset. We sometimes call these effects **unintended consequences**. Some of these can be questionable. Some can pose a threat to our well-being.

How do we ensure that we create the least unintended consequences?

The answer lies with **nature**. What works is reconnecting with the systems of nature, to study it and the delicate balances that have endured for eternity. Our future lies in a childlike marvel of the complex processes that biology and chemistry bring to us, that we observe and try to mimic or recreate in simple ways.

Ravi Shroff sees the future in a fresh cup of yogurt, in the miraculous transformation of milk into curds. A biological transformation that is sophisticated, yet unimaginably simple, like many transformations of nature. "Green, safe, cost effective and energy efficient; we can't improve the processes of nature," he exclaims.

Without doubt, the ultimate alchemist is nature!

Nature's design is a fundamental principle of life.

Kaka, Kantisen Shroff, saw this well ahead of the times when he looked at cow dung for an answer to urban waste disposal. At 93, today, Kaka still thinks 30 years ahead of times. This forward-looking approach has given birth to various endeavours and products that Excel strove to develop. Today, these products are answers to some of the most urgent issues that plague our society.

Ashwin Shroff, deeply influenced by Kaka, suggests that the future must move towards regenerative processes: from non-renewable hydrocarbons to renewable carbohydrates. He believes that we must focus on how organisms function as holistic units and depend on cooperative relationships, both in their chemistry and in their nurturing environments.

How does one take cues from nature?

The process of photosynthesis holds many answers to humankind's future. Photosynthesis is nature's elegant chemistry. Green plants use sunlight to synthesise nutrients from carbon dioxide, a waste product that human beings breathe out, to produce sustaining oxygen as a by-product. Transforming waste into a precious resource is one of the pointers from nature.

Ashwin practises what Kaka passionately preached. He now focuses on projects such as investing in *samudra kheti* (seaweed cultivation). He shares his passion through various industry forums. Seaweed doesn't take up valuable land or fresh water, absorbs CO_2 using sunlight, and so becomes a 'carbon sink'. It can 'hold' carbon longer than trees, is generally hardy, and is a resource for fertiliser. It can be harvested and, so, can provide income for fishermen all along India's formidable coastline.

Practically every generation of the Shroffs is in tandem when it comes to the vision of renewability.

Gen-I looked at credible businesses along with human values. Gens II and III look at socially relevant innovative products while maintaining those values. There is much more government regulation and stringency, and the needs of stakeholders such as employees, customers, trade channels, neighbours, the economic and natural environment must be respected.

Hrishit Shroff shares Kaka's, Ashwin's and Ravi's fervour for developing innovative solutions for **waste disposal**. He feels our perception needs to change from seeing waste as a headache and a nuisance. We must recognise waste as having value. The ongoing challenge, as he sees it, is to develop a revenue model that is both economically and environmentally sustainable.

Atul Shroff experimented successfully, choosing **earthworms** as organic solutions to liquid effluents. He trained Adivasi women to make organic plant nutrients, *amrutpani*, vermiwash as also plant protection solutions, which he terms *'brahmastra'*, from organic materials such as **cow's urine**.

Dipesh Shroff began his journey tapping into the marine resources of nature as part of his commitment to improve the lives of the Maldharis, who lived precariously on the edge of the white desert of Kutch. The **marine chemicals** plant in Dhordo is testimony to his grit to create employment for them, and arrest the trend of their migration to cities. His son, Chaitanya, will soon dedicate his energies to take this dream forward.

The vision has come full circle.

Excel has tried to replace non-renewable energy sources with solar and wind power, so that in future, a large part of their requirements can be met this way. Their larger vision is to continue to work sustainably and ethically, by producing goods and services that improve the lives of users, and by providing jobs and enhancing workers' quality of life.

…And newer paths open up to make this possible.

Our journeys often take us on a circular path. We find we travel far to arrive where we started. The difference is in our perception. We understand the purpose of our journey, as if for the first time.

The solutions for the next 'green revolution' are not to be found in biotechnology, they are to be found in 'biology of belief' about purpose and values that will endure.

A biological transformation can be sophisticated, yet unimaginably simple. Green, safe, cost effective and energy efficient: without a doubt, the ultimate alchemist is nature!

How Do You Measure the Success of a Company?

Excel: A Social Enterprise

Walking around some of Excel's plant sites, one comes across a museum of sorts—the Manufacturing/Management Excellence Programme gallery—highlighting past and present leaders and their ideals; C.C., Govindjibhai, Kantisenji, Ashwinbhai. These modest spaces harness the power of people's memories through the leaders' thoughts, which are quoted and displayed on the walls, along with their portraits. "Profit is the by-product of the service rendered to the customers," says one quote. A selection of products is displayed as well. But this space provides only a tiny sampling of the extended, inclusive, family-style company culture that has prevailed at Excel for 75 long years.

When, as a leader, you take a pause from the daily grind to look back at the company's past, you get an objective view of the journey, as well as a self-check. Have you done a good job? The basic objective of forming a company is to offer products or services to customers, procure orders, generate profits and acquire assets. Those are tangibles, all part of a 'countable' world.

Today, Excel has many companies under its umbrella, and in this fast and furiously paced world, the quickest benchmark of a company's success is its turnover numbers. If we put the Excel Group's numbers into one side of the weighing scale, it would tip the scales admirably.

However, we also need to shine a light on the other corners of the company edifice, to find stories that balance numbers, with tales of achievements and struggles, revivals and ends. Let's look at the other side of the scale. What emerges from the company in terms of intangibles, the place where numbers don't belong? What goes into the other balancing scale?

Excel has also sown the seeds for countless offshoots. Some of those companies have grown prodigiously, some have fed off Excel to find their own niches, and some have taken entrepreneurial flights, led by early employees or associates of Excel. Excel has always encouraged this. Can we truly count in numbers, this **cumulative** interest on the early investments Excel made in their people, even after they had left the company?

Not everything that can be counted, counts.
Not everything that counts can be counted.

When Excel was started, the idea was to go in for some exciting exploration and accept challenges that others were hesitant to take on; profits would follow. There was no single measuring gauge for success, because the intangibles, those **moments of epiphany** were always a big part of the corporate deal. The multifarious contributions of their people; **innovative process discoveries**; clients' astonishment at impossibly quick deliveries; pride in **quality and contribution to the nation**… all these intangibles counted.

The stories here tell us about the way Excel saw, and still sees, itself.

The sudden ban on Endosulfan could have been seen as a major setback, but it became a lesson in turnaround and **resilience**. The Marine Chemical plant in Dhordo became a story of indefatigable **faith in a shared vision.** The need for new products gave birth to the manufacture of pharma intermediates.

Whether it is about engaging in products with quick cycles or projects involving long gestation periods, Excel has always tried to remain **ethical**, and there are some impressive stories around that. Excel's history amply reflects how it has engaged with people, both within and outside the periphery of the company**.** This has created the hallmark of the company's identity.

A company commands many resources. Some of these could be put to use for the good of the community, reflecting the spirit of **trusteeship**. In a broader context, Excel is a social institution. Not only are Excel's people treated as family members—and several generations of families continue to work here—but there is a deliberate tilt towards its responsibility to society at large, a tradition that the company embraced much before the term Corporate Social Responsibility (CSR) was coined. Being **frugal** and recycling whenever and wherever possible, going **green** with windmills and solar panels, going the extra mile for the **safety** of its workers and the environment, **setting up NGOs** that tackle the gamut of issues ranging from education and providing tutoring to children; to women empowerment, agriculture, farmers' issues from water interventions; to more productive methods of farming, natural resources management, livelihoods, reviving arts and crafts; to encouraging research… Excel attempts to express its **social responsibility** in various ways. There has been successful progress in new methods of solid-waste and effluent-water treatment, and a stimulating exploration into viable solutions for reversing the climate change.

Even if one can approximate the vast amounts of water recovered and the water saved from sewage that the Excel Group companies work on, can one really quantify how these interventions have bettered the quality of farmers' lives? Of women's growing confidence or the health benefits of toilets and sanitation, of educational opportunities, all rippling out over hundreds of villages, towns and cities? What measuring scales can do this?

Seventy-five years on, Excel continues to look inwards and outwards, to adapt to new expectations, where the people-oriented culture is integrated with higher accountability. Innovation is given a lift by following fresh ideas and new ways of developing products, processes and markets. There is a monitoring of the company's position in the ever-changing industrial landscape, its adaptability and its ability to weather storms, to test the foundation on which it stands.

Running a company is perhaps like arranging a bookshelf during an earthquake; changes are constant, both within and without. What we really need to determine is whether the foundation will hold.

In the case of Excel, the prognosis looks bright.

One scale can measure tangibles, such as profits, but how do you measure the intangibles?

The Excel team at Roha.

Thank you…

Excel Team

Excel's 75-year journey has been shaped by many hundreds of hands, hearts, minds and souls. With deep gratitude, I say 'Thank You' to each one of them for their contribution in the company's progress.

I would like to pen a few words on some of the names that come to mind.

Ashwin Shroff

Ambashankar Purohit
- The 'Metal Man' of Excel: copper, zinc, iron

Anant Mahamunkar
- Peon to Deputy Head: HR
- Welfare at heart

Anil Purecha
- Always smiling, versatile function organiser
- Liaison expert.

Arun Veeramani
- Much more than Company Secretary, his official role
- Fastidious about English language

Ashok Ishrani
- A childhood friend turned Excelite turned entrepreneur

B. Balachandran
- Technocrat par excellence: projects, processes, trouble shooting
- Excellent human being

B.V. Gandhi
- Highly versatile
- Roha site management to HO: personnel, E&BT, many roles

B.Y. Suvarna
- From fiery militant leader to constructive thinker: tamed by Pappa

Baburao Niwate
- Highly versatile: fisherman of Versova to versatile, barefoot trouble shooter.
- Shop floor Manager of Amboli site

Bipin Jha
- Statistician turned MIS expert, comfortably managed multiple roles
- EA to CMD
- Member of team for Excel Story 2

C.A. Mehta
- The engineer turned project manager
- Son of policeman, but heart of a poet
- Tall man with dwarf but intelligent children

C.M. Deshpande
- The shy, soft spoken, highly effective PR person and solver of difficult problems of company as well as people

C.R. Bhatt
- The first qualified chemist to join the company

D.B. Mehta
- A true Nagar Brahmin: intelligent, studious, curious, sharing knowledge and ideas, lifelong learner

D.R. Degwekar
- Engineer turned project management expert turned site in-charge.
- Straight talker
- His own brand of humour

Deepak Shah
- Chemical engineer, worked on shop floor and projects, joined Technical Directorate, learned business opportunity scanning and execution in policy context, turned successful entrepreneur

Dinanath Masurkar
- The early fabrication expert in Jogeshwari, helped Pappa give concrete shape to many process plants

Ganpat Khanvilkar
- The first colleague of Kaka who helped master city waste management

Gaynor Pais
- The tall, dashing, intelligent PR specialist who imbibed and advanced Excel values and helped launch many a product with catchy names and slogan to effectively educate farmers

J.S. Gosalia
- A truly versatile veteran of Excel, wore many caps in his more than 50 years of association with Excel—operations, R&D, marketing, projects—both internal and external, in addition to NGO leadership in the last 10 years

K. Srinivasan
- Headed finance and accounts in Excel Industries and Excel Crop Care. Effective leader who delivered. Tough negotiator.

Kirtibhai Shah
- The eternally young, serial developer of products and processes through his 60 years of association with Excel, and counting!

Laxmikant Patil
- The quiet yet effective R&D person, creating 'Laxmi' for the company by developing new products and processes.

Mohan Jawdekar
- The mechanical engineer turned operations man, turned garbage manager, helping Kaka to develop Excel's unique composting process.

Mahendra Trivedi
- From career in Excel Bhavnagar, to effective public leadership, to ministership in Gujarat Govt.

Maya Gandhi
- Masters in Clinical Psychology with a stint outside as a psychologist, social worker, lecturer. Joined Excel as a trainer and a welfare executive. Tremendously dedicated, sincere and intelligent, she has worn many different caps in areas of Employee Welfare, Training, Human Resource, CSR, Organisation Development, Employee Engagement, Master of Ceremony, Corporate Communication, Corporate Affairs. She is a trustee of our group NGO C.C. Shroff Self Help Centre. Active member of this book's editorial team.

Medhaben Padhya

- One of the earliest lady chemists to join Excel, worked actively on the shop floor, later managed library and information collection and dissemination.

Narendra Shah

- In true Excel tradition, an excellent technology developer and manager, without great academic degrees to back up! Now, a successful entrepreneur.

Nester Domnic

- A superb shop floor manager of hazardous materials and processes, from mercury-based products to Celphos.

Prakash Shroff

- An electrical engineer turned chemical engineer becoming Executive Director. His standard question: "I am confused, please explain?" or "Let's change the sequence of process steps & see what happens!"

P.V. Kango

- One of the toughest but most loved and respected 'Quality Control' men at Excel, ensuring quality in everything, not only in products and processes but also in people!

Prakash Gagangras

- His wonderful journey, from plant supervisor in Amboli, to site manager of Lote plant, spreading Excel values and culture not only within the Lote site, but in the industry and social circles. Now an entrepreneur.

Prakash Shringarpure

- A young engineer who joined Excel's Phosphorus team, journeying through R&D, pilot plant, project at Bhavnagar, to become the site manager. Mature personality, good values which were further strengthened by Excel values & culture. Now an entrepreneur.

Dr Purna Pragnya

- True to his name, full of knowledge and wisdom, headed chemical R&D, introduced breakthrough products like Flowcel, interacted closely with customers for product development.

Dr Ramesh Bhatt

- A gentle GP with long and rich experience, associated with Excel for nearly 40 years, taking care of not only Excelites' health, but also very good occupational health understanding and solutions.

Ninad Gupte

- Joined as fresh MBA, climbed the organisational ladder in Sales & Marketing, both domestic and international. Sharp mind and strategic thinker with very good networking capabilities. Had stints with other reputed organisations including MNCs but an Excelite at heart. Returned to Excel and has risen to become Joint MD.

Ravi Bhatia

- Congenial, bright, affable, joined as an engineer in Drip Irrigation Business (JV with Netafim), shifted his energies to International Marketing, developing African and other markets. Went on to head exports business of Excel Crop Care Limited.

S. Ganesan

- Masters in Agriculture, joined Excel's agrochemicals marketing team, rising steadily to head southern region. A voracious reader and presenter of important statistics to national and global audiences. Studied Environmental Law, International Treaties and is Head of International Treaties Expert Committee, ICC, safeguarding interests of India and Indian Industries.

S. N. Pathak

- Joined as an electrical engineer and worked in several projects as an electrical engineer. Considering his ability to manage people he was deputed to Bhavnagar as site head. Later took up responsibility as GM Human Resource at Head office.

S. R. Potdar

- Brilliant, energetic and enthusiastic, Mr. Potdar an engineer from IIT Madras and an Industrial Engineer from NITIE, reached the position of Executive Director of Excel. Known for his punctuality, straight talk and systems, equally at ease at detailing as well as understanding the holistic picture. Well read, well informed, quick grasping and assimilation of any subject, his command over various languages was exceptional.

S. S. Ogale

- Human Resource man all along, with holistic understanding of business needs and roles of people, has served Excel since long and continues to do so. Has had stints with other well known cos. and grown into a seasoned HR person. Also helps group companies and organisations in strategic HR.

Sachin Jadhav

- MSc. in Organic Chemistry, creative and diligent, he constantly experiments and works on new applications and new areas for products manufactured by Excel. Is in charge of ISO systems of the company and responsible for customer support from Lote site.

Saifee Degani & Shabbir Degani—Father & Son

- Saifeebhai, referred by one of the Bohri partners of Excel, joined Excel in the 1940s. Highly trusted by the family, he was an authorized signatory of the company. He looked after the administration that his son Shabbirbhai, a very jovial and friendly person, continued with, till his retirement.

Sanjeev Mantri

- Sharp, intelligent and amiable, with a futuristic bent of mind, he was a member of pioneer team of Excel developing Biocides, Phosphonates, Flowcel (Flow improver). Involved in R&D, marketing, heading commercial functions. After brief stint outside Excel, now heading group company Agrocel's Chemical Division. A great social contributor, especially in education.

Sudhaben Vashi & Dr. Satish Pathak—Brother & Sister

- Born in a farming family, Sudhaben acquired MSc. degree in agriculture from Haryana. Sincere and academic, she went to Israel for further studies and experience. She was in charge of regulatory affairs and registrations of pesticides for the company.
- Satish, a doctorate in soil science and a practicing farmer, was able to hone his love and skills at managing different soils. Developed Excel Bhavnagar's site's adjoining plots of saline lands into mini forests with biodiversity of vegetation and living creatures.

Vanraj Pattani

- Coming from the same neighbourhood as Shroffs, Vanrajbhai became the first sales and marketing head of Excel HO, through sheer hard work, dedication and business acumen despite his humble beginnings and educational background. After his retirement he partnered with other ex-Excelites and turned into an entrepreneur.

Vasantbhai Mistry

- The 'Glasslined Reactor Specialist' , engineering skills were part of his DNA. His love and care for GL reactors, a versatile lifeline of Excel, helped Excel very much.

Vipin Doshi

- Chemical engineer from IIT, Vipin joined at Amboli plant after a small stint outside. Forthright with a no-nonsensical characteristic, his expertise in Projects, Processes, EHS and all the technical areas led him to Roha as site in-charge technical with B.V.Gandhi. During and post his retirement, his EHS (Environment-Health-Safety) expertise is well recognised. He serves as a senior adviser on EHS & Responsible Care and other self initiatives of the industry through the apex trade association ICC (Indian Chemical Council).

Vivek Save

- MSc in organic chemistry, Vivek worked as a chemist along with Dr. Rajan Choudhari in C.C. Shroff Research Institute (CCSRI—1976, actively involved in developing products, processes and technologies in chemicals). His ambition, hard work and sincerity charted a growth journey for him such that from being a research chemist to Executive Assistant to MD, Mr. Ashwin Shroff, he jumped ranks and companies to become the Managing Director and Country Head of Lonza India Pvt. Ltd, a 120-year-old multinational giant.

Yashwantrao Lele

- Mr. Lele, a Gandhian to the core and a teacher, impressed Kakaji so much so that he entrusted his first batch of new, young and raw Lote core team to him to be trained to lead the new Lote site in '70s. He did such an amazing job, setting an example, that till today he is remembered with respect and admiration.

And all the others…

A.B. Phadke
A.D. Joshi
A.K. Chatterji
A.V. Bhadkamkar
Achala Pardhy
Alex Emmanuel
Alka Deshpande
Amarsingh Varma
Ambu Daji Patel
Ambashankar Purohit
Amrutbhai Lad
Anand Jadhav
Anand Kadam
Anand Korgaonkar
Anant Mahamunkar
Anil Kakkar
Anil Patel
Anil Purecha
Anupam Bengali
Anupam Bhattacharjee
Arifa Gandhi
Arun Ashar
Arun Dhuri, Dr
Arun Varade
Arun Veermani
Ashok Ishrani
Ashok Jain
Ashok Kulkarni
Ashok Tilak
Atmaram Parab
Augustine
Avinash Auti
Avinash Bakre
B.B. Reshanwala
B. Balachandran
B.K. Achutha
B.S. Jha
B.V. Gandhi
B.Y. Suvarna
Baban Shedge
Babubhai Karani
Baburao Niwate
Bade Bhaiya
Bahadur
Bakshi Col.
Bansibhai Marfatia
Basheer Patel
Bhagwanbhai Lad
Bhalchandra Abhyankar
Bhanubhai Purohit
Bharat Kale
Bharat Sanghani
Bharatbhai Karia
Bholanath Sarkar
Bhupendra Lad
Bipin Dave
Bipin Jha
C.A. Mehta
C.D. Patel
C.M. Deshpande
C.M. Lad
C.P. Shah
C.P. Vyas
C.R. Bhatt
Chandrakant Kamdar
Chandrappa
Chiniwala
Correa
D.B. Mehta
D.J. Unakar
D.K. Shastri
D.M. Kothari
D.R. Degwekar
D.V. Chudasama
Dasmabhai
Dattaram Bhagan
Deen Mohammad
Deepak Broker
Deepak Shah
Dhanji Mistry
Dhiraj Dangodra
Dhirubhai Doshi, Dr
Dilip Shah
Dinanath Masurkar
Dinesh Padhya
E.Y. Karekar
Fakir Mohamad
G.O. Kanabar
Gajanan Patel
Gajre
Ganesh Shetgaokar
Gangaram
Ganpat Gowale
Ganpat Khanvilkar
Gaynor Pais
Ghanshyam Doshi
Ghanshyam Makwana
Giribhai
Girish Parikh
Govind Babu Kumthekar
Gunwant Godhankar
H.G. Manchekar
Hansa Gosai
Harish Sanghavi
Harshad Gandhi
Harshad Joshi
Hemang Mehta
Hemant Thaker
Hindurao Jagdale
Ishwar Kawa
J.J. Dave
J.M. Vyas
J.R. Naik
J.S. Gosalia
J.S. Mehta
Jairaj Chapper
Jariwala
Jayant Meshram, Dr
Jaywant Shahpurkar
Jiten Harihar
Jitubhai Shah
John
Joseph Tuskano
Jyoti Alurkar D./O.P.V. Kango
Jyotsna Kapadia, Dr
K.B. Vohra
K.D. Dabholkar
K.K. Chhaya
K.M. Nair, Mrs
K. Nagrajan
K.P. Janardhan
K.P. Rajan
K.S.V. Nair
K. Sil
K. Srinivasan
Kakdya Ramji
Kanti Pandya
Kapdi Sudhakar
Keshav Khade
Keshav Mistry
Khajan Singh
Khandwala
Kiran Paranjpe
Kiran Shah
Kirtibhai Shah
Kishor M Kavadia
Kishor Nivalkar, Dr
Kishor Zare
Kumudbhai Shah
Kuverjibhai Patel
L.S. Patil, Dr
Laxman Gawda
Laxmibai
M.A. Thakur
M.C. Jawdekar
M.L. Shah
M.P. Mistry
M.S.M. Pillai
M.V. Potdar Dr.
M.V. Revankar
Magan Lad
Maganbhai Khasia
Mahadeo Main
Mahendra Jadhav
Mahendra Trivedi
Mahesh Bhatt
Mahesh Dave
Mahesh Jadhav
Mahesh Patil, Dr
Makrand Joshi
Manchu Soma Warli
Manjulbhai Sampat
Manohar Broker
Manohar Parab
Manoj Gohil
Manubhai Dhanesha
Manubhai Gagwani
Maruti Desai
Marzban Patel
Mathew Dabre
Matkar Madhukar
Maya Gandhi
Mayabhai
Medhaben Pandhya
Mohan Maraj
Moizbhai Degani
Mukund Vyas
Mulraj Ashar
Mumtaz
N.H. Attreya, Dr
N.K. Amin
Nalini Joshi
Namdev Shere
Nandkumar Chodankar, Dr
Narayan Jadhav
Narayan Madhvan
Narayan Muliya
Narayan Pednekar
Narendra Shah
Narendra Vasudeo
Nathubhai Prajapati
Navin Ashar
Nayan Gala
Neha Tiwari
Nelson Mendes
Nester Domnic
Nikhil Kapadia
Nikumbhe Suresh
Ninad Gupte
Nirmala Patel
Nirmalraj
Nitin Dave
P.D. Thosar
P.G. Butala
P.K. Shroff
P.M. Jadhav
P.M. Karia
P.P. Dhamangaonkar
P. Saxena
P. Sitaram
P.V. Kango
Paddu Kapadia
Padmakar Jawdekar
Pankaj Kapadia
Parag Karambele
Patric Domnic
Prabhakar Patil
Prabodh Purecha
Prabodh Sheth
Pradeep Ghattu
Pradip Gohil
Prakash Gagangras
Prakash Masurkar
Prakash Shringarpure
Pranav Desai
Prasad Ghate
Prashant Diwan
Prashant Yagnik
Pratap Dave
Pravin Desai
Pravin Parikh
Purna Pragnya, Dr
R.C. Yadav
R. Hariharan
R.K. Deshpande
R.K. Patel
R.M. Bhatt, Dr
R.N. Deshpande
R.P. Pandey
R.R. Pendbhaje
R.R. Upadhya
R. Ranganathan
R.S. Tiwari
R. Singh
Rafiq Salema
Raghunath Kambre
Rajan Chaudhari, Dr
Rajan Shirsat, Dr
Rajani Dhorbe
Rajkumar Korde
Raju Rana
Ram Bankar, Dr
Raman Lad
Raman Prajapati
Ramchandra Bhilare
Ramdhan Pawar
Ramesh Bhatt
Ramesh Dambal
Raamesh, Dr
Ramilaben Shroff
Ranjit Shroff
Rashid Nandolia
Ravi Bhatia
Raya Main
Rohidas Kabade
Rose D'melo
S.A. Rege
S.B. Dange
S.B. Kulkarni
S.G. Kapadia

S. Ganesan
S.K. Paluskar
S.K. Patil
S. Kundu Dr
S. Mukherjee
S.N. Pathak
S.P. Iyer
S.P. Merchant
S.R. Potdar
S.S. Elange
S.S. Kaimal
S.S. Ogale
S.Y. Patankar
Sachin Jadhav
Saifeebhai Degani
Sakharam
Salim Halai
Sanjay
Sanjay Jadhav
Sanjeev Mantri
Sarma Dr, P.P.
Satish Narvekar
Satish Wadivkar
Shabir Degani
Shailesh Keshruwala
Shakti Mehta
Shankar Parab
Shantaram Main
Shivaji Jagdale
Shivkumar Pareek
Shripat Gaekwad
Shyam Bahadur
Siddharth Shah
Subhash Mahajan
Subhash More
Sudhaben Vashi
Sudhanshu Mishra, Dr
Sudhir Nijsure
Sunil Jagtap
Sunil Murkar
Sunil Sharma
Suran Singh
Surendra Gajjar
Suresh Manjrekar
Suvarna Gokarna
Swati Das
T.D. Thomas
T.E. Shetty
Tukaram Govale
Uday Kulkarni
Ulhas Kulkarni
Usha Gadher
Uttam Khare
V.D. Patel
V.D. Deshpande
V. Gopalkrishnan
V.K. Parmar
V. Ranganathan
V.S. Puthran
V.T. Satam
V. Vaidya
Vanrajbhai Pattani
Vasantbhai Mistry
Vazir Khan
Veersingh Laturiaram
Vijay Bhatt
Vijay Kothiwale
Vijaya, Dr
Vinod Bariya
Vinod Vaidya
Vipin Doshi
Virendra Rathod
Vishwas Joshi
Vivek Bhatwadekar
Vivek Save
Walter Mendoza
Waman G. Mulye
Y.M. Vyas
Y.S. Mehta
Yeshwant Kambre
Yeshwantrao Lele
Yeshwantrao Niwate
Yogesh Pandya
Yvonne Murzello

The Storytellers…

People Who Shared their Views

Some of our storytellers…

We thank our storytellers (numbering almost 200) for trusting us with their stories. We spoke to Excelites (old-timers and those in service) working at the head office and Roha and Lote plants, members working with Excel subsidaries, associates, contractors, consultants, service providers, local leaders and community members. We also interacted with senior executives and team members from the Excel Group Companies, Shroff family initiated voluntary organisations, beneficiaries of community development programmes. From this rich sharing emerged a repertoire of heartwarming stories that are the backbone of this book.

We are grateful to Ashwin Shroff for giving us the opportunity to write these little and big stories. Kaka's enthusiasm and wealth of memories have overlaid many stories with a rich texture.

We are grateful to the Shroff family for their time. We thank Kantisen and the late Chanda Shroff, Ashwin and Usha Shroff, Atul and Shruti Shroff, Dipesh and Preeti Shroff, Ami Saraiya, Kirit Dave, Rajju and Sandra Shroff, Praful and Chetna Saraiya, Tushar and Hiral Dayal, Jyoti and Jyotsna Bhatt and Gen III—Ravi, Hrishit and Chaitanya Shroff, for helping us weave the fabric of the Excel Group and Shroff family with an honesty and openness that made us a part of the family.

Jyoti Bhatt and Hiral Dayal have been very forthcoming in sharing their priceless archive of family photographs. Shroff NGOs have been very generous in laying before us their entire library of photographs. These photographs have breathed life into the stories.

Ex-Excelites C.A. Mehta and D.B. Mehta, transported us back in time to the early years of Excel. These energetic senior citizens with their amazing repertoire of jokes and stories were always a phone call away to fill in the blanks. Their assistance has been valuable through the story development and review process.

A very special thank you to Maya Gandhi and Bipin Jha for their patient assistance and valuable feedback. We drew on their long-standing experience as loyal stalwarts of the Excel family, as they narrated insightful incidents, gave us valuable feedback, helped us verify the facts, fill in missing links and gather visual material.

We hope you enjoyed reading the stories as much as we enjoyed writing them.

Their views and experiences are the heart and soul of this book.

The Storytellers…

Nilesh Bhagat
Sr. Officer: Biotech sales and service, Pune, 9 years

Mavji Baraiya
Overall in-charge of VRTI, Mandvi, Kutch, 20+ years

Sendhabhai Paregi
Projects Coordinator
Mandvi, Kutch, 15+ years

Malay Joshi
Projects Coordinator
Mandvi, Kutch, 6+ years

Karsanbhai
Devjibhai Rangari
Arvindbhai Patel
Village Madanpura
Horticulture, musk melon, papaya farming

Devibai Lakhabai Rabari
Village Momaymara,
Village Vandh

Shamji Lalji Vakharia
Mandvi, Kutch
Horticulture: Date palm with parallel farming of pomegranate

Hareshbhai
Mandvi, Kutch, Cotton farming

Varshaben
Mandvi, Lady para-vet

SSG Group
Rukmavati river basin project

Varshaben
Vivekanand Mahila Vikas Federation
Mandvi
Leads 33 groups in 5 villages

Arunaben Parasia
Village Ludwa
Teacher, sewing classes for women

Chandraketu Mehta
GM: Head, projects and operations
Excel Ex-Employees, Baroda
40+ years – Retired as GM (which was the highest position then).
Still associated with Excel.

Devanshu Mehta
Chief Manager: Directorate, Excel
Ex-Employees, Baroda
45+ years, still associated with Excel and ICCSIR

Marzban Patel
Ex-Excelite, Baroda
Transpek Industry, Baroda

Bimal Mehta
Managing Director: Transpek Industry Limited, Baroda
Runs his own industry today

Rakhee Gupta
CEO: Transpek Agritech
Transpek Industry, Baroda

Maganbhai Patel
Shroffs Foundation Trust
Kalali, Baroda

Kamini Kansara
Shroffs Foundation Trust
Kalali, Baroda

Jyoti Dhomse
Sr. Coordinator: Aatapi, Baroda

Dr Rohit Srivastava
Assistant Professor: ICCSIR, Mandvi
4 years
Education: PhD, MSc (Physics)

Shouvik Jha
Research Assistant: ICCSIR, Mandvi
3 years
Education: MSc (Geoinformatics)

Sherin Hassan Bran
Senior Research Fellow (Dept Science and Technology project): ICCSIR, Mandvi, 2 years
Education: MSc (Meteorology)

Pruthvi B. Patel
IT Intern: ICCSIR, Mandvi
1 year
Education: MSc (Information and Technology)

Kajal Barman
Research Intern (short term): ICCSIR, Mandvi
less than one year
Education: MSc, I Year (Geoinformatics)

Manoj Gohil
Director: Agrocel, Dhordo

Ransinh Sodha
Factory Manager: Chemical engineer, Agrocel, Dhordo
23 years

Nalemitha Morana
Manager: Agrocel, Dhordo
19 years

Miyanhusain Gulbeg Morana
Sarpanch of Village Dhordo
Banni region leader
Agrocel, Dhordo

Viren K. Shah
GM: Site in-charge, ECCL, Gajod
25 years
Earlier with EIL, then with ECCL.
Diploma in Chemical Engineering

Shailesh Wadhaiya
Solar plant, ECCL, Gajod
24 years
Diploma in Mechanical Engineering

Vinod Patel
Date plantation, ECCL, Gajod
3 years
Bachelor of Rural Study

Sunil Vaishnav
GM: Overall In-charge, Kutch Crop Services Limited (KCSL), 8 years with KCSL, overall 20+ years with Shroffs

Bhavnaben Parmar
Officer: Production, Kutch Crop Services Limited (KCSL), 14 years

Khusbuben Savsani
Officer: Production, Kutch Crop Services Limited (KCSL), 3 years

Pramod G. Butala
Chief Manager: Ex-employee, Roha, Ex-Excelite, 38 years

Pralhad K. Bhate
Sr. Executive: Ex-employee, Roha
Ex-Excelite, 38 years

Bhagwan T. Lad
Worker / Pilot: Roha, MVRS, 35 years

Vivek N. Joshi
Staff: Accounts, Roha
MVRS, 34 years

Sachin Naik
Executive: Project, Roha
New engineers, 3 years

Nitin Todkar
Sr. Officer: Maintenance, Roha
New engineers, 1 year

Shantaram Mhatre
Sr. Officer: P2S5, Roha,
New engineers, 1 year

Sukanya Mahadik
Trainee: Civil, Roha, State-level fire fighters, 1 year

Pratiksha Mundhe
Apprentice: Electrical, Roha, State-level fire fighters, 1 year

Prakash Sathe
Manager: CSR, Roha, 38 years

Prakash Dhumal
Worker: CSR, Roha, 31 years

Vaibhav Vetkoli
Executive: CSR, Roha, 4 years

Sushil Rulekar
Sr. Executive: CSR, Roha, 15 years

Sanjay Y. Gharat
Worker: PIP, Roha, Operators, 23 years

Shridhar A. Gharat
Worker: DETC III, Roha, Operators
32 years

Subhash C. Naik
Worker: DETC III, Roha, Operators
20 years

Surayaji S. Kadam
Sr. Officer: Accounts, Roha
Job Rotation, 39 years

Hashiram G. Manchekar
Sr. Manager: HR
Roha, Job Rotation
28 years

K.K. Majumdar
Sr. Manager: SCM, Roha
Job Rotation, 34 years

K.T. Ramkrishnan
Sr. Manager: Eng services, Roha
Job Rotation, 29 years

Ajay K. Phase
Sr. Manager: Safety, Roha
Job Rotation, 25 years

Rajkumar S. Korde
General Manager: CSR, Roha
Job Rotation, 37 years

M.J. Gharat
Chief Manager: Production, Roha
Tech. group, 27 years

S.J. Bagal
Manager: P2S5, Roha, Tech. group
24 years

Vilas Mahale
Manager: Tech, Roha, Tech. group
10 years

Parag Karambele
Sr. Manager: Projects, Roha
Tech. group, 10 years

K. Sil
Chief Manager: QA, Roha, Tech. group
11 years

L.S. Patil
Chief Manager: R&D, Roha, Tech. group
24 years

S.B. Mohite
Manager: R&D, Roha, Tech. group
26 years

V.B. Bhusane
Manager: QA, Roha, Tech. group
27 years

S.M. Muchandi
Manager: Maintenance, Roha
Tech. group, 24 years

Mrs V.D. Degwekar
Sr. Manager: Accounts, Roha, Ladies
24 years

Nitin Joshi
Manager: Admin, Roha
Kutch experience, 23 years

Sanjeev Kavitake
Sr. Officer, Electrical, Roha
Kutch experience, 33 years

Shrikant Oak
Roha, Civil Contractor

Sudhir S. Shinde
Roha, General Contractor

Budhwani
Roha, RIA

Adv. Prashant K. Deshmukh
Legal Advisor, Roha

Malekar
Social Worker, Roha

Prakash Gagangras
Ex-GM: Site In-charge, Lote, 36 years
Retired and running SSI

Padmakar Jawdekar
Manager Admn: Lote, 38 years
Resigned and running medical shop

Dattaram Mande
Executive: Despatch, Lote, 38 years
Retired and counsultancy

Makrand Joshi
Manager: HR, Lote, 20 years
Resigned and running TVS showroom

Eknath Karekar
GM: Site In-charge, Lote
34 years in service with Excel

Suresh Patankar
Chief Manager: HR, Lote
34 years in service with Excel

Prakash Kulkarni
Manager: Pilot, Lote, 37 years
Retired

Sitaram Nigudkar
Sr. Executive, CSR, Lote
27 years in service with Excel

Vivek Shendye
Sr. Officer, CSR, Lote
28 years in service with Excel

Girish Kulkarni
Sr. Manager, Codex, Lote
17 years in service with Excel

Dr P.K. Jousheed
Manager, R&D, Lote, 1 year, Resigned

Rabinson T
Manager: Pharma, Lote
1 year Resigned

Arvind Talegaonkar
Sr. Manager: Pharma, Lote
4 years in service with Excel

Vishwanath Vaidya
Manager: Project and tech, Lote
14 years in service with Excel

Mandar Soman
Sr. Executive: Civil, Lote
22 years in service with Excel

Rohit Pawar
Executive: Maint., Lote
5 years in service with Excel

Sanjay Ajri
Manager: Instr., Lote
25 years in service with Excel

Amol Kekare
Executive: Project and tech, Lote
6 years in service with Excel

Rahul Redij
Manager: Engg and services, Lote
22 years in service with Excel

Ajay Deshpande
Sr. Executive: Maint., Lote
24 years in service with Excel

Vivek Thakurdesai
Manager: Pharma, Lote
28 years
in service with Excel

Sachin Jadhav
Chief Manager, QA, Lote
31 years in service with Excel

Vijay Kate
Worker, Pharma, Lote
23 years in service with Excel

Chandrakant Chalke
Executive: HR, Lote
33 years in service with Excel

Ramchandra Aainkar
Staff: Boiler, Lote, 32 years, Retired

Sunil Shere
Worker, PIP, Lote
23 years in service with Excel

Vijay Waghe
Officer, Biocel, Lote
33 years in service with Excel

Shirish Heman
Staff: HS, Lote
21 years in service with Excel

Sanjay Phodkar
Staff: Boiler, Lote
29 years in service with Excel

Arun Thasale
Worker: PIP, Lote
33 years in service with Excel

Sunil Utekar
Worker: Codex, Lote
26 years in service with Excel

Ravindra Bait
Worker: Codex, Lote
23 years in service with Excel

Pravin Shirke
Worker: Chilling, Lote
24 years in service with Excel

Milind Padhye
Worker: Chilling, Lote
27 years in service with Excel

Vishwas Joshi
Sr. Manager: R&D, Lote
28 years in service with Excel

Balkrishna Phuke
Sr. Executive: QA, Lote
28 years in service with Excel

Sanjay Jadhav
Sr. Executive: R&D, Lote
26 years in service with Excel

Omkar Gokhale
Sr. Executive: R&D, Lote
9 years in service with Excel

Shridevi Surve
Sr. Executive: QA, Lote
12 years in service with Excel

Snehal Jadhav
Staff: Admn, Lote
12 years in service with Excel

Surekha Mane
Lote
30 years – supplying milk since Lote's inception

Shailesh Chalke
Lote
10 years – cashew processor; entrepreneur through Excel CSR

Roshani Jadhav
Lote
15 years – Manufacturing and supplying cotton masks; entrepreneur through Excel CSR

Shaila Pawar
Lote
15 years – manufacturing and supplying cotton masks; entrepreneur through Excel CSR

Snehal Kadam
Lote
20 years – a trainer & social worker associated with Excel CSR since last 20 years

Dipti Sawant
Manager: Mahila Arthik Vikas Mandal, Khed, Lote
5 years – a trainer & social worker associated with Excel CSR

Rajubhai Redij
Lote
30 years – villager and running education society.

Dr Prashant Patwardhan
Lote
30 years – SSI & Journalist & President of LPIA

Ajay Mehta
Lote
20 years – SSI & Secretary of LPIA

Mohan Warankar
Lote
30 years – Villager and running education society

Sambhaji Kadam
Lote
30 years – Villager and contractor of industrial services.

Dr Milind Gokhale
Lote
30 years – Medical Officer, NGO and President of Engineering College.

Prakash Deshpande
Lote
30 years – Secretary of Lokamanya Tilak Library.

Arvind Jadhav
Lote
30 years – President of Lokamanya Tilak Library

Dr Yatin Jadhav
Lote
30 years – Medical officer.

Shriram Joshi
Lote
30 years – Contractor of industrial services

Jagdish Naik
Advisor: Mumbai
30+ years – Shroff Group of Companies

Ninad Gupte
Resigned as Vice President: Sales and Marketing, Mumbai
30+ years – Currently Jt-MD, ECCL

B. Balachandran
President: Chemicals division, Mumbai
37 years

Kirti Shah
Manager (Retired): R&D, Mumbai
50+ years – Currently Consultant, Shroff Group

J.S. Gosalia
Sr. Vice President: Chemicals, operation, Mumbai
38+ years – Currently Managing Trustee, VRTI

Ashok Jain
Sr. Vice President: Sales and Marketing, Mumbai
30+ years of association – Currently Consultant CSR

Jitendra Shah
G.M.: R&D, Mumbai
36 years, Retired

Kailas Dabholkar
C.F.O.: Finance and Accounts, Mumbai
40+ years

Ganpat Khanvilkar
Officer: Waste Management, CSR, Mumbai
35 years, Retired

Sanjeev Mantri
Chief Manager Excel: Marketing. Mumbai, resigned
23 years – VP Marketing, Agrocel

Vipin Doshi
Vice President: Operations, EHS, Mumbai
32 years (retired 20 Oct 2008)

S. Ogale
Resigned as Manager: HR, Roha Site. Mumbai
12 years (1974 to 1986)
Now Consultant with Excel

Pushpa Pal
Manager: Taxation, Accounts, Mumbai
3 years

Prabhunath Pal
Executive: Admn, Transport, Mumbai
39 years

Prakash Shroff
Ex-Executive Director: ECCL, Mumbai
47 years

Ranjit Shroff
Retired as Senior Manager: Finance, Mumbai 17 years ago.
53 years
Now Consultant with Excel

Maya Gandhi
Sr. Manager: Directorate, CSR; advt and corporate communications and trustee in C.C. Shroff Self Help Centre, Mumbai
29+ years
Earlier in personnel, HR and training

Bipin Jha
Manager: Finance and corporate Mumbai, Executive Assistant to CMD
25+ years

Anand Kadam
Sr. Executive: Marketing, earlier Library Mumbai
43 years

Awards and Recognition

If there is one thing that Excel is never short of, that is winning awards. Excel has almost made a habit of it. The first award it had won was the Acharya P. C. Ray Award for Development of Products and Processes through Indigenous Technology. That was in 1964. After that, other awards have come tumbling in.

1964 Excel becomes the first recipient of Sir P. C. Ray Award by Indian Chemicals Manufacturers' Association (ICMA) for Development of Products and Processes of Indigenous Technology

1968–69 The Bronze Shield for Import Substitution for Developing Indigenous Know-how for manufacture of Monochloro Acetic Acid

1969–70 First-ever Gold Shield for Import Substitution for Developing Indigenous Know-how for manufacturing Methyl Bromide, Aluminium Chloride, Phosphorus Pentasulphide and Aluminium Phosphide

1972 The Indian Chemicals Manufacturers Association (ICMA) Award for Innovative And Purposeful Programmes For Social Progress by the chemical industry

1973 Sir P. C. Ray Award for Development of Products and Processes through Indigenous Technology for Development of Elemental Phosphorus

1973 Sir P.C. Ray Award (Silver Shield) for Development Know-how of Elemental Phosphorus

1981 The Indian Chemicals Manufacturers Association (ICMA) Award for Process Design and Process Engineering of Chemical Plant and Innovative Production of Endosulfan

1982–83 First Prize / Award for Export of Organic and Inorganic Chemicals including Pesticides, from CHEMEXCIL (Basic Chemicals, Pharmaceuticals & Cosmetics Export Promotion Council (Set up by Ministry of Commerce, Government of India), Bombay

1983–84 First Award for Export of Organic and Inorganic Chemicals including Pesticides, from CHEMEXCIL (Basic Chemicals, Pharmaceuticals & Cosmetics Export Promotion Council (Set up by Ministry of Commerce, Government of India), Bombay

1983 Environmentalist of the Year Award to Mr. K. C. Shroff, Managing Director, Excel Industries Ltd, instituted by Chemtech Foundation

1984–85 Trishul Award for Excellent Export Performance For Three Consecutive Years; from CHEMEXCIL (Basic Chemicals, Pharmaceuticals & Cosmetics Export Promotion Council (Set up by Ministry of Commerce, Government of India), Bombay

1990 Sir P. C. Ray Award from The Indian Chemicals Manufacturers Association (ICMA), for Development of indegenous Technology for Butene Diol for safe and eco-friendly new process, a Global first

1991 The Indian Chemicals Manufacturers Association (ICMA) Award for Innovative and Purposeful Programmes for Social Progress

1991 CHEMEXCIL Award (Basic Chemicals, Pharmaceuticals & Cosmetics Export Promotion Council (Set up by Ministry of Commerce, Government of India) for Outstanding Export Performance

1990–91 First Award for Export of Organic and Inorganic Chemicals including Pesticides, from CHEMEXCIL (Basic Chemicals, Pharmaceuticals & Cosmetics Export Promotion Council (Set up by Ministry of Commerce, Government of India), Bombay

1991–92 First Award for Export of Organic and Inorganic Chemicals including Pesticides, from CHEMEXCIL (Basic Chemicals, Pharmaceuticals & Cosmetics Export Promotion Council, set up by Ministry of Commerce, Government of India), Bombay

1992 Jamnalal Bajaj Uchit Vyavahar Puraskar (Jamnalal Bajaj Prize for Fair Business Practice)

1992 FICCI award to VRTI for rural development

1992 Corporate Performance Award from mini and giant companies in the private corporate sector in India by *The Economic Times* and the Harvard Business School association of India at the hands of Shri Rangarajan, Governor, Reserve Bank of India

1992 The first award for the 'Best Exhibit' in Green Expo 2000 – All India Exhibition on Environment

1992 Award to Mr. K. C. Shroff, MD Excel Industries Ltd, for meaningful contribution towards growth and development of the pesticides industry from Pesticides Formulators' Association of India

1992–93 Top award for Exports of Organic and Inorganic Chemicals including pesticides from CHEMEXCIL (Basic Chemicals, Pharmaceuticals & Cosmetics Export Promotion Council, set up by Ministry of Commerce, Government of India), Bombay

1993–94 The Good Corporate Citizens Award from the Bombay Chamber of Commerce & Industry

1994–95 First Indian agrochemical company to receive the coveted ISO 9002 certificate for its manufacturing units – Bhavnagar, followed by Lote Parshuram and Roha

1995 Man of the Year Award to Mr. Kantisen C. Shroff, Chairman, Excel Industries Ltd, from *The Week*

1995–96 Certificate of Honour received by The Chartered Financial Analyst

1998–99 GPFA Prestige Award for outstanding contribution in developing indigenous technology for manufacture of pesticides and winning recognition in domestic as well as international market and giving thrust to India's export contribution

2000 Award of Excellence to Mr. Kantisen C. Shroff, Chairman Emeritus, Excel, by the Indian Environmental Association in recognition and appreciation of his pioneering, distinguished and meritorious service for the protection and prevention of environment, through his developmental, entrepreneurial and social activities, during past five decades

2000 Excel receives 'Corporate Governance Award' by Governor of Gujarat

2001 'Special Award' from CHEMEXCIL for outstanding Export Performance for the year 2001

2003 Maharashtra Safety Award for achieving Lowest Accident Frequency Rate during the year 2003 in chemicals and fertilizers sector (for Lote Parshuram, Ratnagiri) by National Safety Council – Maharashtra Chapter

2003 Bharat Gaurav Puraskar in Swadeshi Jagran Mela, Mumbai from Bhartiya Vignyan Vikas Kendra

2004 Greentech Safety Silver Award in chemicals sector to Lote Parshuram, by Greentech Foundation, New Delhi

2004 The Indian Chemicals Manufacturers Association (ICMA) Award for Excellence in Management of Health, Safety and Environment for the year 2003–04

2004 International Spirit At Work Award, for nurturing the human spirit at work and inspiring others by one's example, conferred by Association for Spirit At Work at Zurich, Switzerland

2004 National Safety Awards by Ministry of Labour and Employment, Government of India, to Lote Parshuram

2004 'Supplier Excellence' certificate and a Gold medal for the year 2004; a maiden award from one of our major customers, Bayer Crop Science, based on Bayer Supreme Evaluation tool for the evaluation of the suppliers. The acronym SUPREME stands for Supplier Performance Evaluation and Management

2005 National Energy Conservation Award (Second Prize) in chemicals sector for the year 2004 from Ministry of Power, New Delhi (for Roha Site)

2005 Excel Roha won the prestigious state-level award for Excellence in Energy Conservation from Maharashtra Energy Development Agency (MEDA) for the year 2004 for Excellence in Energy Management & Conservation

2005 Arch Emerging Markets, Biocides Region – Highest Growth Rate in Segment for the year 2005, awarded by Arch Avecia, Europe

2005–06 National Safety Award by Ministry of Labour, Govt. of India, in recognition of good safety performance and accident prevention programmes (for Lote Parshuram)

2005 II Prize–'Excellence in Energy Conservation and Management', Govt. of Maharashtra (MEDA)

2006 'Outstanding Engineering Manager, for Best Engineering / Energy Management Practices'. VBS Maintech Henkel Locktile

2005–06 Mr. K. C. Shroff, Co-founder and Chairman Emeritus was felicitated by Dr. Abdul Kalam, President of India, for the outstanding leadership, vision, inspiration and direction that he has provided over the years in the overall upliftment, development and empowerment of community in rural India especially in the Kutch region. The function organized on behalf of Shri Ramkrishna Mission at Porbunder was conducted on the auspicious National Youth Day on January 12, 2006, the birth anniversary of Shri Vivekanand.

2006–07 Award for Excellence in Energy Conservation & Management for the year 2005-06 in the First Category from Maharashtra Energy Development Agency (MEDA) – (for Roha site) again a hat trick

2007 Receives Excellence in Energy Conservation Award by Indian Chemical Council

2006–07 Rolex Award for Enterprise to Mrs. Chandaben Shroff, founder member of Shrujan (NGO), wife of Chairman Emeritus Mr. K. C. Shroff, for outstanding achievements through innovative projects to change the world and make it a better place to live. Mrs. Shroff becomes the first Indian laureate to receive this award for reviving a local form of artistic expression, hand embroidery, taking the Indian handicraft in the global market while empowering the women through sustainable source of income and help revitalize the local economy.

2007–08 Shri Ashwin Shroff, Chairman & Managing Director, conferred with UDYOG RATNA award at Roha, for his valuable contribution towards Industrial Growth and Corporate Social Responsibilities

2007 Vivekanand Research and Training Institute, the Non-Government Organisation operating in Kutch, received National Award; BHOOMI JAL SAMVARDHAN PURASKAR at the hands of Hon. President of India Smt. Pratibha Patil on behalf of Central Groundwater Board, Ministry of Water Resources, Government of India, for adopting innovative practices of groundwater augmentation through rain water harvesting and artificial recharge. Present at the ceremony were Hon. Shri Sharad Pawar & Shri Jayaprakash Narayan Yadav, Minister of State for Water Resources.

2006–07 The Certificate of Excellence for the year 2006 based on the Bayer SUPREME Evaluation Tool from Bayer Crop Science Ltd

2007 ICC Award for Excellence in Energy Conservation & Management

2007–08 SUPREME SUPPLIER AWARD for the year 2007 from Bayer Crop Science Limited. Excel stood at the first position in the evaluation process conducted through Bayer Supreme Evaluation Tool that examined aspects like safety and environment, current performance, systems to sustain performance, future requirements, cooperative service and support.

2008–09 Award for Excellence in Energy Conservation and Management for the year 2007 from Maharashtra Energy Development Agency (MEDA) – (for Roha site)

2008–09 Award for outstanding performance in the 'Raw Material Suppliers' segment for the year 2008 from Bayer Crop Science Limited, creating a hat trick

2008–09 *Navshakti*, a publication of *Free Press Journal*, felicitated Mr. Ashwin Shroff, Chairman of Shroff Group of Companies, with 'NavShakti Sanman Chinha' for the considerable contribution in the agriculture sector as well as in the areas of Corporate Social Responsibilities

2008–09 Mr. Ashwin Shroff, CMD Excel Industries Ltd, and alumni of the South Indian Education Society (SIES), felicitated in the category of distinguished achievers for his significant and noteworthy accomplishments and contribution in the area of entrepreneurship and Corporate Social Responsibilities by Dr. A.P.J. Abdul Kalam, former President of India.

2009 National Award for Ground Water Augmentation (Bhoomi Jal Sanvardhan National Award) was awarded by Ministry of Water Resources, Govt. of India, to Vivekanand Research and Training Institute (VRTI) for adopting innovative practices of groundwater augmentation through rainwater harvesting and artificial recharge. The award was received at the hands of Minister of Water Resources and Parliamentary Affairs Shri Pawan Kumar Bansal.

2010 'Outstanding Supplier Award' from Bayer Crop Science

2011 Mr. K.C. Shroff, Co-founder and Chairman Emeritus, Excel Industries Ltd, was conferred the LIFETIME ACHIEVEMENT AWARD by CHEMEXIL (Basic Chemicals, Pharmaceuticals and Cosmetics Export Promotion Council, set up by Ministry of Commerce and Industries, Government of India). The honour was bestowed in recognition for the outstanding leadership, vision, inspiration, direction that he has provided over the decades, towards manufacturing and producing the internationally acclaimed chemicals, thereby substantially contributing to the chemicals sector.

2011–12 Earth Care Innovation Award 2011 was conferred by *The Times of India* to Vivekanand Research and Training Institute for carrying out Community-led Action Projects to protect and nurture the environment

2011–12 Shroffs Foundation Trust received the first *The Times of India* (in partnership with J. P. Morgan) Social Impact Award in the category of Livelihoods in recognition of its outstanding work for relentlessly carrying out activities in rural development for sustainable living

2012 LIFETIME ACHIEVEMENT AWARD to Mr. A.C. Shroff by ICC (Indian Chemical Council) for outstanding contribution to the chemicals sector

2012 VRTI receives award for Corporate Social Responsibility from ICC

2012 'Value of Association', as a best Supplier from Coromandal International Ltd (on its 50th year of establishment)

2018 LIFETIME ACHIEVEMENT AWARD to Mr. A.C. Shroff by CHEMEXCIL

2018 Earth Care Award to VRTI for Rukmavati River Basin Management Initiative

Kinship Terms in this Book

Kinship denotes the most universal and basic human relationships based on ties of blood, marriage or adoption, entailing a certain reciprocal obligation.

Excel Industries believes and practises the concept of family culture where each and every stakeholder—employees, customers, suppliers, community people—is part of this expansive family. Members of the Shroff family de-emphasise status symbols or designations that connote authority or power, and respect every relationship that is a part of this family.

Considering the warm filial feelings in which the Excel culture is enveloped, it is natural for people to address each other using kinship terms such as Ma, Bha, Pappa, Mummy, Kaka, Kaki, Bhai, Bhabhi, Ben or Didi. This is where our promoters pick up their titles too. Since they are used so naturally and are part of their regular conversation, they have been retained in the stories as they are.

For clarity, here are the different ways in which the Shroff family members have been known and addressed.

Bhabha: Late Chatrabhuj Shroff; father of Gen-I Shroffs

Ma: Late Gokibai; wife of Chatrabhuj Shroff; mother of Gen-I Shroffs

Pappa/C.C.: Late Champraj Shroff; Founder, Excel Industries Ltd; father of Ashwin and Renuka

Mummy: Late Snehlata Shroff; wife of Champraj Shroff

Devubha: Late Devidas Shroff; elder brother of Champraj Shroff; father of Shashi, Rajju, Kishor, Sudha and Jyotsna

Bhabhi: Late Jamubai; wife of Devidas Shroff

Bhai: Late Govindji Shroff; founder, brother, Chairman Emeritus and Managing Director of Excel Industries Ltd; Chairman Emeritus, Transpek Industry Ltd; younger brother of Champraj Shroff; father of Atul, Chetna and Hiral; Gen-I

Chachi: Late Shantiben G. Shroff; wife of Govindji Shroff

Kaka: Kantisen Shroff; founder brother, Chairman Emeritus and Managing Director, Excel Industries Ltd; Chairman Emeritus, Excel Crop Care Ltd; Founder of voluntary organisation Vivekanand Research and Training Institute; younger brother of Champraj Shroff; father of Dipesh and Ami; Gen-I

Kaki/Chandaben: Late Chanda K. Shroff; Founder of not-for-profit organisation Shrujan; wife of Kantisen Shroff

Ashwinbhai: Current Chairperson and Managing Director, Excel Industries Ltd; Chairperson, Transpek Industry Ltd, Global Bhatia Benevolent Foundation; Director, ICCSIR and many other companies; son of Champraj Shroff; father of Anshul, Ravi and Hrishit; Gen-II

Ushabhabhi: Usha A. Shroff; current Executive Vice Chairperson, Excel Industries Ltd; Director, Anshul Specialty Molecules Pvt. Ltd, Agrocel; Chairperson, C.C. Shroff Self Help Centre; wife of Ashwin Shroff

Atulbhai: Atul Shroff; current MD, Transpek Industry Ltd, Director, Excel Industries Ltd, Punjab Chemicals Ltd and other companies; son of Govindji Shroff; father of Vishwa; Gen-II

Shrutibhabhi: Shruti A. Shroff; Founder of voluntary organisation Shroffs Foundation Trust; wife of Atul Shroff

Dipeshbhai: Dipesh Shroff; Founder and MD of Agrocel Industries Pvt. Ltd; ex-M.D. of Excel Crop Care Ltd; Director of Transpek Industry Ltd; Excel Industries Ltd; Hyderabad Chemicals Ltd; Kutch Crop Services Ltd; Chairman of International Resources for Fair Trade Mumbai and many other companies; son of Kantisen Shroff; father of Chaitanya, Chinmayi and Krishni; Gen-II

Preetibhabhi: Wife of Dipesh Shroff; Director, Agrocel Industries Pvt. Ltd; and Vice Chairperson of NGO, C.C. Shroff Self Help Centre.

Ravi/Ravibhai: Ravi Shroff; elder son of Ashwin Shroff; current Executive Director, Excel Industries Ltd; Anshul Specialty Molecules Limited; Director of Transpek Industry Ltd; TML Industries Ltd; Gen-III

Amritabhabhi/Amrita: Wife of Ravi Shroff

Hrishit/Hrishitbhai: Hrishit Shroff; younger son of Ashwin Shroff; current President of Excel Industries Ltd (Environment and Biotech Business and Corporate Services); Gen-III

Chikoo: Chaitanya Shroff; son of Dipesh Shroff; current Executive Director of Agrocel Industries Pvt. Ltd; Gen-III

Shivani: Wife of Chaitanya

From the Shroff family album.
"At one time, we were over 20 members living together as a joint family"—Ashwin Shroff.

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Shrujan
Vivekanand Research and Training Institute

Family Collection:
Ami Saraiya
Ashwin Shroff
Hiral Dalal
Jyoti Bhatt
Preeti Shroff
Rajju Shroff
Shruti Shroff

Pg 30 **Bhatia men in western India (c.1855–1862)**
By SMU Central University Libraries–Bhattias, No restrictions, https://commons.wikimedia.org/w/index.php?curid=37135776
Bhatia women in western India (c.1855–1862)
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Pg 31 **Mahatma Gandhi Oleograph**
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Indian rupee 1918
By AKS.9955–Own work, CC BY-SA 4.0, https://commons.wikimedia.org/w/index.php?curid=52177267
15th August 1947 Stamp and Cover
Sekhar Chakrabarti–Vexillologist, author and a passionate collector of flag stamps and flag artifacts http://flagstamps.blogspot.in/2010/08/

Pg 49 **Bhatia man**
https://ismailimail.wordpress.com/2017/06/07/vazir-ibrahim-ladha-from-kutch-to-zanzibar/

Pg 108 **Linocut Mother and Child, 1961**
http://mljohnyml.blogspot.in/2013/07/interview-of-jyoti-bhatt-impressions.html

Pg 108 **Guards-at-the Taj 5**
https://vishwashroff.wordpress.com/2018/04/02/building-artefacts-at-art-basel-hong-kong/

Pg 108 **Chini Shroff self portrait**
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Pg 151 **Dr. N. H. Attreya**
Rajiv Kumar Luv: Testimonial by Dr. N.H. Atthreya. https://www.youtube.com/watch?v=RrAULpYRUdo

Pg 236 **OWC 60, Bioculum, Plants using compost**
https://www.thebetterindia.com/45798/convert-organic-waste-into-compost-in-just-a-day-bioneer-excel-industries/
Converting organic waste into compost
https://www.thebetterindia.com/45798/convert-organic-waste-into-compost-in-just-a-day-bioneer-excel-industries/

Pg 242 **Sanchaita Gajapati Raju, founder and managing trustee of SANA, drinks the treated water at Keshopur Sewage Treatment Plant in Delhi on July 9**. (Photo: Sushil Kumar/'Hindustan Times' via Getty Images)
Keshopur Sewage Treatment Plant. https://www.gettyimages.in/license/480068716

Pg 263 **Bhuj Earthquake Relief**
By Gabriel N–Own work, CC BY-SA 3.0, https://commons.wikimedia.org/w/index.php?curid=6430204
Kutch Cyclone, 1998.
By See file upload history for details.–Created using WikiProject Tropical cyclones/Tracks. The background image is from NASA [1]. Tracking data from the Joint Typhoon Warning Center.[2], Public Domain, https://commons.wikimedia.org/w/index.php?curid=1533850
Map plotting the track and intensity of the storm, according to the Saffir–Simpson scale
Cyclone at peak intensity before landfall in Sind-Gujarat border
By NOAA–http://www.osei.noaa.gov/Events/Tropical/Arabian_Sea/1999/, Public Domain, https://commons.wikimedia.org/w/index.php?curid=12785373
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https://indianexpress.com/article/india/india-others/industries-in-kutch-to-suspend-production-before-nilofar-hits-30000-people-to-be-evacuated/, 29 October 2014
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https://www.indiatoday.in/magazine/states/story/19980622-gujarat-government-reacts-with-fatal-sloth-as-hundreds-die-needlessly-in-a-cyclone-825376-1998-06-22

Pg 266 **Maruti Skandakhand**
Oleograph, Private Collection Amitabh Gandhi, Anant Shivaji Desai, Moti Bazaar, Mumbai