

Policy WATCH

Volume XIII, Issue 9
September 2024, New Delhi

Growth with Employment

In this issue

**Viksit Bharat needs a new
paradigm**

by Arun Maira

**Natural farming movement of
Tamil Nadu**

by Himakiran Anugula

**Case studies of Triple-E – start-
ups: Ecology, Environment and
Employment**

*supported by the Social Innovation (SI) Lab
at Pune International Centre (PIC)*

**Nagaland entrepreneurs dream of
business**

by Neichute Douloi



Contents

1) Editorial.....	3
2) Viksit bharat needs a new paradigm by Arun Maira.....	5
2.1 Reforming the thinking behind policy.....	5
3) Natural farming movement of Tamil Nadu by Himakiran Anugula.....	8
3.1 Introduction.....	8
3.2 Tamil Nadu and the impact of the Green revolution.....	9
3.3 The uniqueness of the natural farming movement in Tamil Nadu – late 60s to late 80s.....	11
3.4 Dr Nammalvar’s journey – from late 1960s.....	12
3.5 Globalization and agriculture in Tamil Nadu – the 1990s and early 2000s.....	16
3.6 Legacy of Nammalvar and the Natural Farming Movement in Tamil Nadu 1990s, 2000s and 2010s.....	20
3.7 Tamil Nadu and Natural Farming – Post 2013 and current trends.....	21
3.8 Conclusion.....	27
3.9 Important events in the life of Dr.G. Nammalvar and his Books.....	27
3.10 References.....	29
4) Case studies of Triple-E – start-ups: Ecology, Environment and Employment supported by the Social Innovation (SI) Lab at Pune International Centre (PIC).....	31
4.1 Padcare Labs.....	31
4.2 Pirul Handicrafts.....	32
4.3 Eco Regain.....	33
4.4 Earth Tatva.....	34
4.5 TribalSmart Technologies.....	35
4.6 Craste.....	36
4.7 Shramik Janta - Wild honey project (Tribal Products).....	37
4.8 Golden Feathers [Mudita & Radhesh Pvt.Ltd.].....	38
5) Nagaland entrepreneurs dream of business by Neichute Doulo.....	40
5.1 Case Study - D/CAFÉ by Dilli Khekho.....	50



RAJIV GANDHI
INSTITUTE FOR CONTEMPORARY STUDIES

I) Editorial

The Rajiv Gandhi Institute for Contemporary Studies (RGICS) works on five themes:

1. Constitutional Values and Democratic Institutions
2. Growth with Employment
3. Governance and Development
4. Environment, Natural Resources and Sustainability
5. India's Place in the World

This issue of Policy Watch deals with the theme Growth with Employment. We carry five articles, broadly all focussing on the future of the Indian economy, but with an alternative vision than the regular “growth at any cost” strategy.

The very first article is by Arun Maira, who served on India's Planning Commission after a long career in the private sector, mostly in consulting. Arun Maira, who is a strong advocate of deep listening and systems thinking, along with ethical action, points to the fact that “India's growth pattern in the last thirty years harmed its natural environment more than other countries”. Moreover, it has generated the least amount of decent employment per unit of GDP. This model is not sustainable, environmentally, socially, and not even economically any longer.” He argues that “the paradigm of economic progress must be changed. All reforms must also improve environmental sustainability and reduce glaring inequities.”

Maira asserts that India which won its political freedom in 1947 as a first step in its journey of decolonization onto *Poorna Swaraj*, now must seize its intellectual freedom by adopting ‘Gandhian’ ideas of local development. Maira concludes: “Rural India can be a university for India's policymakers to produce innovations in policies for sustainable and inclusive progress, while taking appropriate advantage of new technologies. This will make India a leader on a new course for progress that India and the world urgently need.”

The second article is based on a study for the RGICS by Himakiran Anugula, who is an IT professional turned natural farmer and farming activist. It is about the Natural Farming movement in Tamil Nadu, which was spearheaded by an agricultural scientist turned natural farmer, Dr Nammalvar. Himakiran describes in detail how the Green Revolution package first came into Tamil Nadu in the 1970s and how it took almost 30 years before its ill-effects were understood and alternatives developed in the form of natural farming.

Agro-ecological movements led by individuals helped create a parallel ecosystem of production, processing and marketing. In Tamil Nadu, Dr Nammalvar played a pivotal role in one such movement. Comparative studies of organic and conventional farming methods suggest a pattern of low input costs, slightly lower yield, but equal or higher net profits for organic farming.

Himakiran concludes that “The way forward should be guided by native knowledge systems coupled with decentralised community driven decision making in the fields of agriculture, water body conservation, biodiversity, livestock, food processing, fisheries, forestry with the government playing a coordinating role. Rural entrepreneurship empowering youth and women will lead to a strong, locally entrenched economic model which can sell the surplus to the cities.

Images Courtesy:

Google Images (free to use images)

freepik

This would solve multifarious problems of job creation, wealth & income disparities, destruction of natural resources, breakdown of social systems. He resonates with Maira's conclusion when he states "realignment in policy making is needed to achieve a Gandhian model of village republics founded on JC Kumarappa's Economy of Permanence."

The third article takes us to another kind of future – from the agricultural to the non-farm sectors. We carry a set of eight case studies of "Triple-E – start-ups", where triple E refers to Ecology, Environment and Employment supported by the Social Innovation (SI) Lab at Pune International Centre (PIC). The undersigned has been providing advisory inputs to the SI-PIC and had suggested Triple –E be expanded as Environment and Employment through Entrepreneurship. These start-ups cover a vast range of products, all the way from hygienic recycling of used sanitary pads to making useful products out of waste such as handicrafts made from pirul – pine needles covering the slopes of Uttarakhand hills, and quilts out of chicken feathers. This gives the readers a chance to see how the new economy enterprises could be local, employment generating as well as environmentally friendly.

The next article is by Neichute Doulo, who is celebrated Social Entrepreneur from Nagaland. He writes about how "the onset of extensive government jobs in 1964 introduced a cash economy for the state of Nagaland. Within 25 years, the isolated subsistence economy of the Naga villages was changed forever with the income from government jobs. It heralded the new age of the modern economy where cash ruled supreme." Though initially it was welcomed, Doulo traces the negative effects of this. "Gradually, the concentration of government resources in the hands of some communities created a huge disparity of wealth-holding amongst different Naga communities. This led to a huge divide in the Naga society.

The limited idea of a cash economy from government jobs and expenditure only, slowly led to the disparity of Income distribution in Naga society." To combat this he passionately argues that Naga society must change. "We cannot limit the ambitions of our children to that of government jobs only! Our children need to dream of audacious opportunities... If we want to see Nagaland become a developed state, we have no other choice but to encourage hundreds of Nagas to build strong businesses." Neichute then put his ideas in practice by first becoming an entrepreneur himself and then establishing Entrepreneur Associates, an organisation which has promoted thousands of young entrepreneurs in rural and urban Nagaland.. We carry the case study of one such entrepreneur Mr. Dili Khekho who established D/CAFÉ in Kohima.

We hope the readers find these articles interesting and useful. We look forward to feedback.

Vijay Mahajan
Director, Rajiv Gandhi Institute for Contemporary Studies

2) Viksit Bharat needs a new paradigm

Arun Maira



Nurturing the Earth: nurturing communities (Pic: Parsanjit Halder)

2.1 Reforming the thinking behind policy

India's leaders are in a quandary. They must make many difficult reforms simultaneously: reform agriculture systems to increase farmer's incomes; reform land use systems; and radically reform systems of employment creation. All reforms must also improve environmental sustainability and reduce glaring inequities. International comparisons reveal that India's growth pattern in the last thirty years harmed its natural environment more than other countries'. Moreover, it has generated the least amount of decent employment per unit of GDP. This model is not sustainable, environmentally, socially, and not even economically any longer.

The paradigm of economic progress must be changed. Albert Einstein and other scientists pointed out that attempting to solve systemic problems with the same thinking that caused them is madness, The time has come to imagine the contours of a new paradigm of progress. Three recent books give pointers.

Peter S. Goodman goes inside the global supply chain in *How the World Ran Out of Everything* (published in June 2024). He explains how the global supply chain works, in agriculture and manufacturing, with its interconnected institutions and infrastructure of shipping, logistics, warehousing, and large-scale factories and farms. While efficient for generating profits for financial investors, this tightly integrated system is fragile. It falls apart when most needed, as it did in the Covid pandemic. Goodman explains how the deregulation of production and transportation industries gave more power to owners of capital and reduces incomes and job security of workers in all industries. The result was booming stock markets during the pandemic, in developed and developing countries, while workers could not earn, and food and medicines also ran out.

Environmental scientist Vaclav Smil provides a blueprint of a new paradigm in his book, *How the World Really Works: A Scientist's Guide to Our Past, Present, and Future* (published in 2022). He analyses the use of fossil fuels in the modern economy. These are used in the production and distribution of four foundational materials for modern civilization: steel, concrete, plastics, and food.

He evaluates the "total system" requirements of fossil energy (and steel, concrete, and plastics) for technological innovations for renewable energy solutions such as electric vehicles and solar panels. He points out that it will take many decades to replace these basic materials and fossil energy used in production processes of renewables. Saving on one side; adding on the other.

Food is the most fundamental need for human survival: more fundamental than steel, concrete, and plastics. And more fundamental than digital communication services, Smil points out. Fossil fuel-based solutions have become integral for increasing the scale of food production and distribution for meeting the needs of the human population, which has increased in the last one hundred years from 2 billion to 8 billion (1.4 billion in India). Fertilizers are produced from fossil-fuel feedstock. Farm machinery is made of steel and runs on fossil fuels. Plastics are used for hygienic transportation of food in global supply chains.

Smil calculates the benefits of locally circular, organic, multi-cropping systems and says they could be the solution the world needs. He asks, "Could we return to purely organic cropping, relying on recycled organic wastes and natural pest controls, and could we do without engine-powered irrigation and without field machinery by bringing back draft animals? We could, but purely organic farming would require most of us to abandon cities, resettle villages, dismantle central animal feeding operations, and bring all animals back to farms to use them for labour and as sources of manure. Are we prepared to do this?"

Viksit Bharat needs a new paradigm of *viksit*. Local systems solutions, cooperatively developed by communities in their own villages and towns, is the way to solve global systemic problems of climate change and inequitable economic growth. This was the "Gandhian" solution for India's economic and social progress, which was set aside to adopt modern, Western solutions for development. 64% of Indian citizens live in rural areas (36% in China; 17% in USA).

A majority work on farms, and in small industries in rural India; not in large factories that use automated equipment. Rather than trying to catch up with rich countries on their historical development paths, India should take advantage of its present realities.

Western dominated institutions for global governance—the World Bank, IMF, WTO, and Security Council—have failed to create an equitable and peaceful world. The third book, *Environmentalism from Below* by Ashley Dawson (published January 2024) recounts the struggles of people's movements to have their solutions heard in global climate summits.

Their solutions are dismissed as backward by the scientific-industrial establishment. India's policy makers must free themselves from the unsustainable ideas of progress that self-certified "developed countries" in the West have imposed on the rest to maintain their own power. Those ideas are the causes of global problems. They cannot provide solutions.

Thomas Kuhn had pointed out in his book, *Theory of Scientific Revolutions* (published in 1962) that those who have acquired power in an established paradigm will resist changes in the fundamental ideas on which it is founded.

The paradigm of ruling ideas gives them their wealth and political power. They will use their power to control the media, think tanks, and universities, and suppress any ideas that threaten their privileged positions.

India won its political freedom in 1947 as a first step in its journey of decolonization onto poorna swaraj. Now it must seize its intellectual freedom. 'Gandhian' ideas of local development were not adopted when India set out to its vision of poorna swaraj in 1947.

Instead, India adopted the model of large-scale industries that the West and the Soviet Union were following. In that model people must move from farms to factories, and from rural communities to cities. Smil wistfully suggests that going back to old wisdom is a better way to go to the future. The time has come even for the West to dip into the knowledge of the natural and the rural.

Rural India can be a university for India's policymakers to produce innovations in policies for sustainable and inclusive progress, while taking appropriate advantage of new technologies. This will make India a leader on a new course for progress that India and the world urgently need.

(This article was first published in Business Standard, August 5, 2024)and is reproduced with gratitude).

https://www.business-standard.com/economy/analysis/viksit-bharat-needs-a-new-paradigm-reforming-the-thinking-behind-policy-124080500128_1.html?1722829794



Source: Image



3) Natural farming movement of Tamil Nadu

Himakiran Anugula



The root of the plant goes back to the soil, the stem goes to the cattle and the grains come home. Dr. G. Nammalvar

3.1 Introduction

The Natural/Organic farming movement in India has had several stalwarts impacting thousands if not lakhs of farmers. From Shripad Dabholkar to Bhaskar Save to Deepak Suchde to Subhash Palekar, many have spent time on the ground trying to educate farmers on the dangers of chemical laden farming, monocropping, etc.

They have promoted organic/natural farming with a multifaceted approach of traditional seeds, multicropping and livestock integration. The basic methodology is to adopt techniques from traditional practices which will reduce the need for purchased inputs and improve soil health.

We also have had people like Bernard of Auroville, Kapil Shah of Jatan Trust, Gujarat, Pamayan Balasubramanian of ADISIL, Tamil Nadu, Dr.G.V.Ramanjaneyulu of CSA (Center for Sustainable Agriculture), Hyderabad, Claude Alvares of OFAI (Organic Farming Association of India), Goa, Usha Soolapani & Sridhar Radhakrishnan of Thanal, Kerala, Nel Jayaraman of CREATE, Tamil Nadu, Ananthoo & Ramasamy Selvam of Safe Food Alliance, Tamil Nadu, Kavitha Kuruganti of Alliance for Sustainable & Holistic Agriculture (ASHA), Kiran Vissa of Rythu Swarajya Vedika, Sahaja Samruddha of Karnataka amongst others who have spent time with farmers, training people, working on policy interventions, setting up the alternative ecosystem of sustainable farming and safe food.

Together, all of them have kept the fight against industrial agriculture going, despite the pressures of dealing with lobbies of the World Trade Organization (WTO), Big Agro-MNCs pushing GMO in seeds, heavy use of pesticides and fertilisers.

If there is one amongst this fraternity, that rose to insurmountable heights inspiring lakhs of farmers, urban and rural youth, women and making even policy makers and politicians take note, it was Dr G Nammalvar, a former agricultural department officer who could not stand his job of promoting what was bad for the soil; so, quit his job and became an important cog in the wheel of the natural farming movement of Tamil Nadu. This report aims to contextualize the growth of natural farming movement in Tamil Nadu, reasons for its flourishing, and the most pivotal role played by Dr Nammalvar in its growth and sustenance for years to come.

3.2 Tamil Nadu and the impact of the Green revolution

Tamil Nadu is one of the success stories of the Green Revolution with large scale adoption of hybrid seeds, borewells, mechanisation and much more. We also embraced the White revolution despite having no milch breeds and currently stand close to the top in milk production in India. However, all these successes came at a price. Between 1960-61 and 2009-10 the total cultivated area in Tamil Nadu decreased from 7.2 million ha to 5.83 million ha and the net sown area has decreased from about 6 million ha to 5.03 million ha during the same period (Table 1) [1]. However, this reduction in cropped area has been compensated by the increase in productivity of crops so that higher production has been possible.

Table 1: Rainfall, net sown, cropped, and irrigated area by various sources

Area in lakh hectares. [1][2] [3]

Variable	1960s	1970s	1980s	1990s	2000s	2010s
Rainfall (mm)	928	918	842	959	1009	823
Net sown area	60.26	61.33	56.22	56.32	50.35	47.41
Gross cropped area	72.00	74.23	66.77	67.29	58.31	NA
Area irrigated by						
Canals	8.82	8.18	5.75	6.27	4.94	4.26
Tanks	9.12	8.94	8.18	8.35	7.48	6.66
Wells	6.44	10.83	11.05	14.67	16.10	17.79
Other sources	0.41	0.34	0.17	0.15	0.11	0.05
Net irrigated area by all sources	24.79	26.36	24.96	27.75	27.36	NA
Gross irrigated area by all sources	32.69	35.23	31.09	33.94	31.02	NA

It is quite clear that the acreage has reduced as the push for irrigated cultivation, as seen in the increase in well irrigation (including both bore wells and open wells), has led to farmers preferring well irrigated cultivation over rainfed or surface irrigated.

Tamil Nadu has seen a rapid decline in rainfed cropping and a corresponding rapid increase in permanent fallow lands (figure 1) [4]. Although we cannot attribute this only to the preference for irrigated cultivation, as other factors such as industrialisation, urbanisation have changed land use patterns significantly.

However, there has been a marked shift toward high-cost irrigated cultivation of paddy, sugarcane, and turmeric in Tamil Nadu since the 1960s. There are two-fold reasons for this industrialization and urbanization, and the resulting deagrarianization.

1. Next generation farmers from privileged backgrounds quitting agriculture as better economic and social prospects became available (before 90s), and

2. Next generation farmers from both privileged and non-privileged backgrounds quitting agriculture (after 90s) – not because better economic and social prospects are available; but due to a variety of distress reasons pushing them out of agriculture.

In other words, the agency of the farmers to choose their way of livelihoods has gradually eroded. The story is not hugely different from other parts in India where modernisation took its toll on rural incomes and livelihoods and damaged the ecological security of the people. It is 2020 now and we are faced with a serious need for introspection on what was lost and the answers we find from that introspection will mark the direction in which we need to proceed further.

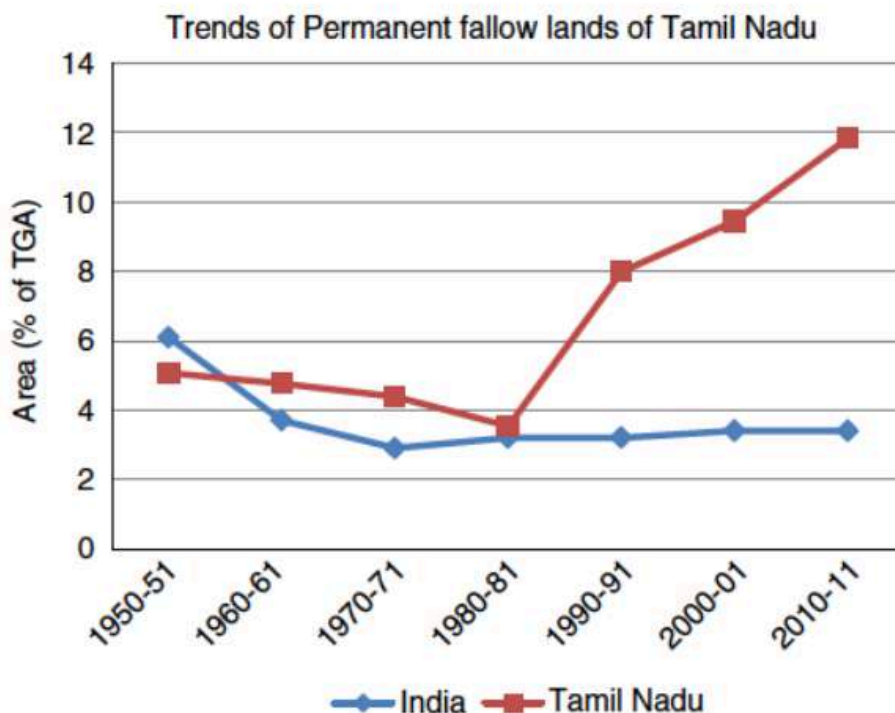


Figure SEQ Figure * ARABIC 1: Increasing trends of permanent fallow lands of Tamil Nadu.

From the 1970s there has been a pushback all over the country, in terms of people bringing awareness on the ill effects of modernisation and its associated narratives in the name of food security.

Agro-ecological movements led by individuals have helped create a parallel ecosystem of production, processing, marketing, and this gives hope in the times of a massive push towards modernisation by a globalised policy making model. In Tamil Nadu, Dr Nammalvar played a pivotal role in one such movement.

3.3 The uniqueness of the natural farming movement in Tamil Nadu – late 60s to late 80s



[Source: Image](#)

Tamil Nadu stands apart here. Alternate thinkers are not relegated to the fringe here and are celebrated by the mainstream. It was never only about natural farming but creating a mindset change and taking that message to the people. The natural farming lobby, yes, it is a lobby, and a powerful one at that; has been instrumental in stopping Genetically Modified (GM) seeds, making the government pull back a Livestock Trading act and many such policy changes.

Mobilisation for such initiatives happens in the posh areas of Chennai at the same time as the hinterlands of Cauvery Delta or Kongu region (Western Tamil Nadu) or any such place here. Farmer leaders are hosted by people from a liberal, modern mind space in Chennai when they visit to address issues or lobby with the government. Any national level meet or protest, the contingent from Tamil Nadu will always have traditional farmers alongside new age farmers who bring alternative perspectives on ecology and economics.

Tamil Nadu has the highest number of organic stores, eco-friendly businesses and even a private equity led venture fund to incubate the same. This development is not restricted to urban pockets but prevalent across the state.

To understand the current resistance to conventional farming and the growth of organic and eco-friendly businesses, one must go back to the 1980s and understand the dynamics of farming and rural transition in Tamil Nadu. Beginning from 1980s, large farmers and their next generation – sons and daughters started to exit agriculture as a business.

In pre-liberalized India, for large farmers, incentives from farming were reducing, whereas the other prospects increased. Parallely, narratives around food and food consumption started undergoing many changes in Tamil Nadu including rapid industrialization and commercialization of livestock.

Broiler chickens were introduced in 1975. The breed reaches critical mass for commercial production in only 6-8 weeks, whereas native country chickens require about 6 months. The myth of red meat – beef and mutton being unhealthy, compared to chicken, also began to spread widely during this time.

The seeds of the green revolution paved way for further commercialization and industrialization of farming in India and Tamil Nadu. One of the major changes happening during this time, not only in farming, but throughout the trading economy was that – it was changing from a producer-centric narrative to a consumer-centric narrative. Even during the colonial times, when trading posts were set up throughout the coast of India, whatever was grown and manufactured in the immediate vicinity was traded. The producer remained the primary point of locus in manufacturing – either in farming or other industries, and had a much-heightened sense of agency, which waned away in the 1980s.

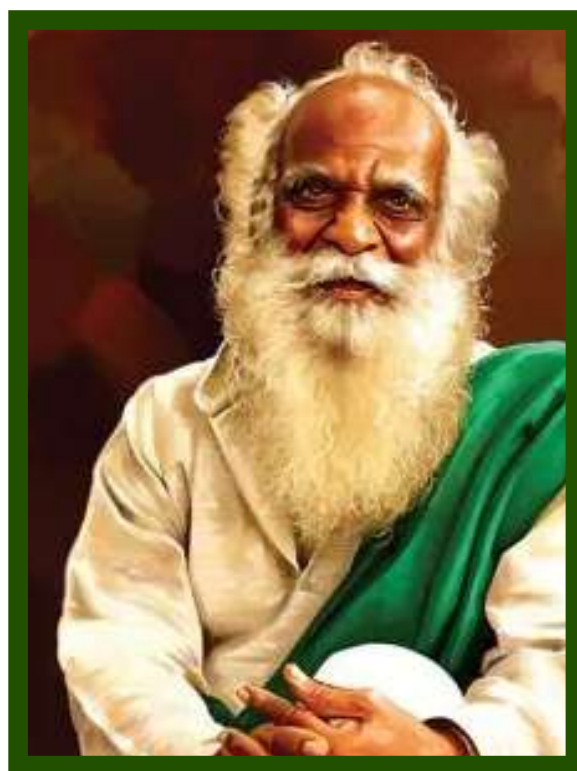
3.4 Dr Nammalvar's journey – from late 1960s

As Tamil Nadu's rural regions were undergoing deagrarianization in the 80s, Dr Nammalvar was working parallelly on social forestry and natural farming.

Disillusioned by the policy and ground level results of the green revolution, where the Union Government took most of the decisions in Delhi on what to be grown in Pudukkottai down south, he left his job in Kovilpatti Agricultural Regional Research Station in 1969.

He joined the Island of Peace with the Nobel Peace Prize awardee Dominique Pire and worked in Vadakarai village in the Kalakad block of Tirunelveli district.

Working at Vadakarai, Nammalvar delved further into the green revolution narrative that changed farming. He began an informal way of training, and understanding of existing practices and structures, rather than imposing top-down pre-packaged solutions.



[Source: Image](#)

In a video interview in 2001, he states that “In India, farming used to be a lifestyle. In these 40 years, we have made it into a business.” [5]

While large scale narrative transitions were happening throughout the country and in the developing world on the nature of farming itself – from a lifestyle that was farmer-centric and producer-centric to a consumer-centric narrative, Nammalvar was working at the grassroots level in Vadakarai focusing on rural development through local agricultural practices.

He was trying to make agriculture a sustainable lifestyle, combined with overall rural development. At this time, his popularity was limited to his immediate circles and the budding natural farming movement in Tamil Nadu. At a time when Government jobs were most sought after, Nammalvar was able to not only quit his job, but also find like-minded individuals in Tamil Nadu to pursue his venture.

Though grassroots level movements, such as the natural farming movement flourished in Tamil Nadu – it was largely due to the culture, open-mindedness and respect generated for powerful grounded narratives that made Tamil Nadu unique. Unlike other states such as Sikkim or Andhra Pradesh, where natural farming movement has picked up pace, the movement in Tamil Nadu was built bottom up, without much or any state support.

Kavita Kuruganti of the Alliance for Sustainable and Holistic Agriculture (ASHA) states that “So what we see is – in Tamil Nadu as a movement is essentially a civil society movement – led by Nammalvar almost singularly. I mean, there has been a number of other farmers – having smaller areas of influence, and that is something very different about Tamil Nadu. And the fact that it has been solely civil society and led by someone with a high degree of integrity – also means when someone adopts this path – they are not likely to leave it at the first hardship.

So, it is a more sustainable organic farming movement – compared to other states. I can say that about Kerala also. Not because of figures like Nammalvar, but because of the Endosulfan tragedy (Kasaragod district) and so on. So, there it is a societal like – movement. Obviously, it will be more lasting in – you know, how deep it runs and how long will it run, and people helping out each other, influencing each other. I think that is something very positive about Tamil Nadu” (personal interview, 2020).

Speaking about the lack of state sponsored growth of natural farming movement, Ananthoo of Safe Food Alliance notes that “(In) Tamil Nadu – there is no institutional growth. Tamil Nadu has seen - exemplary farmers – here and there. That is also the way (it) always (has) been – very few people. Except Erode, there has not been a contiguous group of farmers. Everywhere you go and see. If you are talking about 10-12 years back, every town would have some people like this (advocates for natural farming). For sugarcane, you can tell some five people across Tamil Nadu. For onion, someone. Vegetables, someone. They were always separate and disjointed. Also, because there was no programmatic or government approach.

There were some people around him (Dr Nammalvar). If he goes to Puliampatti, he will go to Gomathi Nayagam. He will talk to people around him. I think it is also a very slow – it is also organic in growth – his own methodology too. He has spoken to many people around Tamil Nadu. So, some people will recognize – ‘yeah, this is right, and that’s how it has slowly changed’. There was no programmatic approach at all. We have never done that except for few NGOs here and there. And Government also does not really come in. They (Government) will do (something) for 3 years, and then disappear. Here it is deep rooted, because everyone who changed, they changed with a conviction - for a reason. They found something that is more interesting and more assuring.” (personal interview, 2020).

Dr Nammalvar played an instrumental role in this bottom-up development of the natural farming movement in Tamil Nadu. In 1973, joined by fellow agriculturists who were embedded in the counterculture to green revolution and focused on natural farming - such as Vaanamaamalai and Nallakannu, Dr Nammalvar moved to Anjetty in Krishnagiri District, and continued his informal way of education. He learned from the local agricultural practices, while engaging the farmers with his knowledge of farming as well. One important aspect to notice here is that – both Anjetty and Vadakarai, as well as other places where Nammalvar had worked are considered dry and not very conducive to farming. The fact that he could work a sustainable model at such places further shows his credibility, and the drive to show that ‘if natural farming can be done in this dry and not considerably suitable place, it can be done anywhere’.

3.4.1 Uniqueness of Dr Nammalvar in the Natural Farming Movement



[Source: Image](#)

Among his peers in the natural farming movement in Tamil Nadu, Dr Nammalvar was unique in many ways. For example, while Government agricultural offices were mired in bureaucracy, not enabling a common farmer's approach easy; Dr Nammalvar was quite easy to approach in both spirit and word. He made his narratives simple and easy to understand.

One organic farmer, Ram says "Among farmers, what he (Nammalvar) could do was – practical solutions he could provide on their field, and simplistic ways in which he could explain it to people, which people can relate to.

Very few people have the capacity to bring that aspect of technical competence as well as capacity to reach out and communicate to a wide section of people. (His) Capacity (to do that) is – rather unique" He continues "Second(ly) – he could translate across boundaries – he could equally talk well to scientists, academics, politicians, and – that ability to reach out to people and I mean, he had his challenges- but I don't think he gave up on anybody. He just kept going. And third(ly) – (it) is personality – definitely he is a very charismatic person."

He recalls an event in Chennai against the mechanization of slaughterhouses. "So, he turned up. He kind of came a little bit late. There were people – academics, people, it was a public meeting – but also there was press there. At the end of the meeting, the entire crowd was like, walking behind him, (even though) we had several other people who are considered eminent in the stage.

He spoke about the economic aspects of why cattle have to be protected, and after that – towards the end, he also gave practical solutions – because there were several housewives and common people sitting in the audience. After he finished talking and came down – one lady (who was in the audience) kind of bowed to him, and to her he said – '*naan kadaisila sonnathu ketteengla. Ungalukku kaaga than sonnen*' (Did you hear the last thing I said? I said that for you.)

He was a real charmer. He also takes in mind the audience, and he could talk to all of them at the same time. He could be forceful, and most importantly, somebody who could maintain himself – easily approachable and reachable for everybody. He was very easy to reach. Most people created several gates. He didn't." (personal interview, 2020). In a bottom-up, grassroots level movement like the natural farming movement, such absence of gatekeeping, keeping the cause above the person, as well as delivery of complex, nuanced knowledge in a simpler, relatable way made the ideas deep rooted wherever Nammalvar traveled and spoke to the common man.

Besides extensive traveling, Nammalvar also wrote and spoke to everyone in the hinterlands of Tamil Nadu about natural farming. He wrote a total of eleven books, wrote articles in Pasumai Vikatan – still one of the current major publications in Tamil about agriculture, and appeared in primetime TV shows to talk about natural farming. Through his extensive traveling, writing, and talking – he created an ecosystem for natural farming to thrive in Tamil Nadu.

3.4.2 Nammalvar, Green Revolution and input-centric farming – late 70s & 80s

Dr Nammalvar preached that the green revolution favoured mostly the fertilizer, pesticide, and insecticide international companies, rather than the Indian farmer. In the process, the eco-chain of natural farming – that combined livestock management, water management, social forestry, management of commons was broken, and every single aspect of it was commodified. Seeds imported and spread by the Government as high yielding varieties from the International Rice Research Institute (IRRI) in Philippines replaced the traditional rice varieties of India. Thousands of paddy varieties that existed in pre-independent India disappeared.

Input costs of a farmer increased rapidly, and his returns and profits reduced marginally. As a result, the net income significantly reduced or went in the negative, leading to poverty traps and farmers' distress and suicides. In such a context, Dr. Nammalvar's narrative not only about natural farming, but also about a different way of lifestyle that was more grounded, and in-sync with nature and the ecosystem was readily taken up. He not only articulated the problems of conventional farming, but also provided a solution. For example, Dr Nammalvar often quotes a Tamil agricultural proverb which says.

“Adi mannukku, nadu maatukku, nuni veetukku”

Meaning that the roots (*adi*) after harvest are left for the soil, the stalk (*nadu*-middle) were fed to the livestock, which gave milk and manure to the farmer, and the grains (*nuni*-top end) went to the house. From the livestock, milk went to the house, and the manure went back to the soil for the next cycle – creating a self-sustaining loop. The livestock gave us what we wanted – milk and manure, while we gave the livestock what we do not want and need – the stalk. Under green-revolution, mineral fertilizers which were produced from petroleum were subscribed by Governmental agencies to increase the fertility of the soil.

Pesticides and insecticides, when added to the plants, increased the toxicity of the soil. They also entered the food chain, including mother's milk. Seeds, which were taken from the previous crop or sourced locally, then had to be bought from the Government and other companies every season. As a result, farmers became debt ridden, and over the course of time, despite the introduction of technology such as borewells, free electricity schemes in Tamil Nadu, farming became a less prestigious job, eventually resulting in deagrarianisation.

Parallely, as a wave of deagrarianization, farmer distress and input-centric conventional farming was developing, Dr Nammalvar led and contributed to the resurgence in natural farming methods. To show that natural farming methods and social forestry, without any chemical inputs, can be a viable option, in 1982, he started developing around 20 plus acres of social forest at Ammangkorai, Pudukottai district. In 1979, he started a society called Kudumbam (family) for farmers to be self-sufficient and do 'poison-free' (free of mineral fertilizers, insecticides and pesticides and other inputs) farming. As of 2001, he had worked with over 6000 farmers converting more than 20,000 acres into natural farming [6].

After attending a 4-week training course by the ETC Foundation in Netherlands on ecological agriculture in 1987, Dr Nammalvar founded a network called LEISA India (Low External Input and Sustainable Agriculture) as part of the AME Foundation in 1990. In the same year, he started the Ecological Research Centre for rain-fed cultivation in Pudukkottai district. Though, in the larger picture, aided by the state, conventional agriculture was taking firm roots in Tamil Nadu, a resilient, bottom-up, grassroots level movement of natural farming led by Dr Nammalvar was slowly gaining mass-movement parallely.

3.5 Globalization and agriculture in Tamil Nadu – the 1990s and early 2000s



Source: Image

Counter-narratives to green revolution and input centric farming in terms of natural and 'poison-free' farming had spread throughout Tamil Nadu leading to the 90's, by word of mouth, writings, formation of farmer organizations, and mostly through informal networks. Even if people did not perform natural farming, the narrative that natural and organic farming as a much more holistic way of farming, and a better lifestyle spread in Tamil Nadu. As these parallel changes were taking place, India's economy got liberalized in 1991 and opened for foreign investments, and structural changes that prioritized the market economy.

Tamil Nadu is one of the foremost states to reap the benefits of liberalization of the economy started in 1991. Tamil Nadu went through a slew of urban centric development and a steady increase in GDP. Manufacturing units were attracted from abroad to be set up. Industrial corridors and Special Economic Zones came up in Tamil Nadu. If we look at the urbanization data from 1981, 1991, 2001 and 2011 of Tamil Nadu, we can see a clear-cut pattern towards urban-centric development and migration.

According to 2011 census, Tamil Nadu is the most urbanized state with about 42.47% of the population living in urban areas with small and medium towns spread across the state [7]. It is estimated that by 2030, 67% of Tamil Nadu's population will live in urban areas and only 33% in rural areas [8]. Urban population grew at 27% in 2001-2011, whereas rural population grew at 6% during the same time [9]. As a result of urbanization, agricultural land loss is happening throughout India. In 2001-2010 time period, Tamil Nadu had lost about 45,312 hectares of agricultural land to urbanization and industrialization, mostly in the peripheries of existing cities and towns [10].

To improve the yield of crops – especially paddy to meet the demands of the population, various schemes are brought forward by the Government such as the system of rice intensification (SRI). Though the yield per hectare has increased in the recent past, it is still yet to be seen if it has reached a threshold in terms of increasing the yield. The other issue with respect to urbanization's effect on farming has been the competition for water between urban and agricultural needs.

For example, in Thiruvallur district, adjoining Chennai, private borewells set up in villages have been pumping water from Thiruvallur to meet the growing water needs of Chennai [11]. As a result, agricultural activities are severely affected in pockets surrounding the bore wells, leading to exit from agriculture, distress, as well as changes in cropping patterns. Tamil Nadu, which especially has many smaller cities and towns – and continuing to rapidly urbanize, need to come up with a sustainable urban development program that needs to consider the surrounding rural areas. If not, further industrialization and urbanization would lead to further farm distress and reduction in overall crop growth.

Though the population of Tamil Nadu is not rapidly increasing (fertility rate of TN is 1.6), increase in urbanization would also lead to more pressure on existing farmlands to improve their yield, potentially giving rise to increased chemical inputs. This could potentially also lead to decreased food security of Tamil Nadu, as high pressure on yields concentrated in lower acreage would mean increased risk of crop loss due to pest, disease attack as well as extreme climate events – for which Tamil Nadu is highly susceptible.

It could also mean increased loss during transportation and storage of horticultural produce, as smaller pockets of land would be producing for urban regions far away. The solution lies in identifying and incentivizing decentralized meeting of demand and supply – in that locally produced foods are consumed locally – even within Tamil Nadu. This will reduce transport and storage loss, sustain the diversity of farmlands and the crops, and prevent against extreme climate events, pest, and disease attacks.

Globalization narrative is also one of the major drivers of urbanization throughout the world. After the fall of the Soviet Union, international politics and globalization intensified and began to expand its influence in many major fields. The World Trade Organization – which replaced the General Agreement on Tariffs and Trade (GATT), was formed in 1995. Genetically Modified (GM) crops, which were being developed and introduced in the US in the 1980s was introduced commercially in India in 1996 [12] with Bt Cotton eventually occupying a large market share.

Because of the neoliberal policies starting from 1998 onwards, and further expanded since 2005, agricultural management and perception further shifted. Earlier, big farmers and their next generation were exiting agriculture and found good success in other areas. Even smaller farmers and their next generation, who quit agriculture found success, thanks to the IT, medical and other higher educational revolution that happened in Tamil Nadu [13].

However, much more recently, the movement away from farming – especially the next generation of farmers has been due to macro level changes in urbanization and industrialization leading to distress in farming – rather than a voluntary moving away towards prosperity. In that sense, not only the real income levels, the collective and individual agency of farmers has also been decreasing over time.

Starting in 1980s, Tamil Nadu allowed for private engineering and medical colleges leading to much better enrolment and increase in human capital in the industrialized and 'skilled' sectors. The number of engineering colleges doubled in late 2000s, with 251 engineering colleges in 2007, as compared to 553 colleges in 2013 – with an overall annual admission increasing from 73,953 to 1,82,491 students per year [14].

Correspondingly, unemployment rates and underemployment rates have also increased with graduated engineers predominantly not employed in the engineering sector. As of 2018, nearly 1.6 lakh engineering graduates are unemployed [15]. According to an aspiring minds report, nearly 80% of India's engineering graduates are not employable in engineering related sectors, and in that Tamil Nadu was one of the worst performing states occupying the bottom of the table [16].



Source: Image

Though the deagrarianization had seen a corresponding increase in 'skilled' human capital, most of the newer graduates continue to be unemployed or underemployed, working outside their area of training. This shows that there is an inflated supply of engineers, but relatively low demand in the Tamil Nadu economy.

The globalization economy had two contrasting results moving towards the extremes in agriculture in Tamil Nadu. Many big and small farmers were exiting farming for other industries. On the other end, another group of people such as Dr Nammalvar, Venkatachalam, Pamayan, Anthonysamy, Satyamangalam Sundararaman, Arachalur Selvam moved towards taking the organic farming movement to the lay person and resisting the changes.

Lots of structural and institutional arrangements were changing in India. As a result of such changes, not just in agriculture, for economic success and upliftment, the role of working capital became paramount.

Not just economic capital, the importance of social capital also went up – as traders and manufacturers who are well networked became more prosperous, whereas new entrants who had to learn the rules of the game were at a distinct disadvantage, which had worsened since 1980s.

In the last two decades, if you look at data, you will find that there are less OBCs in top level management positions and even lesser SCs and STs. At best, for most people reaching the mid-level ranks in the private corporate sector was itself a dream and most languished in the bottom rungs. The cost of acquiring and education to reach there had a heavy toll on the agricultural economy. The risk associated with accessing capital also increased tremendously.

The microfinance model for lower income households to access risky capital became widespread in the early 21st century throughout developing countries. India and Tamil Nadu were no exceptions. The United Nations named 2005 as the “International Year of Microcredit” [17].

This suggests two things that – access to capital has become more and more important for economic success, and the lower income households were finding a hard time to access capital. Microfinance systems worked towards this problem and became successful.

However, most of the microfinancing focused on self-help groups and other small loans, and not towards agriculture. Institutional priority sector lending is available, but there is a heavy bias towards cultivation of paddy or sugarcane, which is mostly irrigated, and not for any rainfed crops or even processing, storage.

The inability of rural farmers to mortgage their rural lands, and for younger farmers who do not have assets to their names to declare as collateral to access institutional credit has further worsened the problem – leading to farmers not able to access credit at all or turning to loan sharks with extremely high interest rates.

Gradually, over time because of lack of access to financial credit and financial cushion in a world rapidly giving increased importance to capital, the role of farmers as primary producers and most important part of the society was gradually relegated. Farmers’ net income reduced, and the overall crisis intensified. The % share of GDP from Agriculture and allied sectors has been steadily declining in Tamil Nadu. It was about 24.57% in the 1980s to 21.85% in 1990s to about 16.88% in the 2004-2005 financial year [18].



Source: Image

3.6 Legacy of Nammalvar and the Natural Farming Movement in Tamil Nadu 1990s, 2000s and 2010s

With respect to deagrarianization and development, more and more people in Tamil Nadu began to question the globally existing paradigm, which was becoming increasingly exploitative, and at the same time resisting social growth of the underprivileged. Mid and late 2000s, and the first half of 2010s further entrenched this narrative and increased an already existing global unrest.

Stream of underlying unrest, especially with respect to environmental issues became mainstream in Tamil Nadu. Protests against Koodankulam Nuclear Power Plant (protests from 1990), the pollution of Sterlite Copper in Thoothukudi (protests since 1993), Hydrocarbon extraction project in Cauvery Delta (since 2009) and the Neutrino project in Theni (since 2005) became peoples' movements.

During this time, Dr Nammalvar actively involved in such environmental issues, and widely travelled and became much more popular throughout Tamil Nadu. Nammalvar inspired the next generation of youngsters, farmers, and activists by being a man of action, and not simply rhetoric. For example, the revoking of the Neem patent by the European Patent Office (EPO) in 2000 to US Department of Agriculture and the multinational WR Grace to produce a fungicide - was considered a landmark victory for peoples' movements against big corporations.

The case filed by many organizations including Dr Vandana Shiva of Research Foundation for Science, Technology and Ecology (RFSTE) in 1995, eventually became fruitful in 2000, when the EPO squashed the patent citing the existing knowledge of the usage of neem in India. It set a precedent for future patent rights issues. Dr Nammalvar, along with Dr Vandana Shiva was present at the EPO office in Munich in 2000 to protest the patent.

His involvement in the neem patent issue was two-fold – in that directly he provided support for the case, and indirectly, he spoke about the injustice of the patent in India and spread the knowledge to the common man about the importance of neem, and the importance to protect our agro-ecological traditions from exploitation by corporate interests at the expense of the common man.

His wide traveling, and seamlessly mingling with the local people, without any kind of barriers enabled him to become a magnet of values and virtues to all sections of the society – from small scale farmers to IT workers. Even at the time of his passing away in December 2013 near Pattukkottai, he was on a trip to protest the methane extraction project (hydrocarbon projects). His legacy is not just about natural farming, but about building a bottom-up ethos; an ecosystem and lifestyle that is in sync with nature, environment, local livelihoods, and sustainable development.



3.7 Tamil Nadu and Natural Farming – Post 2013 and current trends

After his passing away on December 30th, 2013, Dr Nammalvar's popularity, and his ethos and teachings continue to influence the current and next generations through his writings, his videos, and institutions he had built like Vanagam.

Workshops conducted periodically by Vanagam has attendees from all over Tamil Nadu and from outside Tamil Nadu as well – have influenced thousands of individuals who take on a path in natural farming much more grounded.

New social institutions relating to organic farming and natural farming have also sprung up, and existing social institutions have strengthened.

Dr Nammalvar's photo can be seen in many organic shops and other places, that he is almost deified in many ways.

Since Tamil Nadu is a technologically advanced state with high network coverage and people of every class with access to social media, we can consider the social media pulse, especially Facebook as a reflection of ground reality. Some of the groups with such high activity are given below:

Published: 12 Aug 2020 5 PM Updated: 12 Aug 2020 5 PM

திருவாரூர்: 'கல்விப் பணி போலவே இதுவும் முக்கிய சேவை!' - பள்ளியில் பாரம்பரிய உணவு அங்காடி

← கு. ராமகிருஷ்ணன்



பள்ளியில் இயற்கை அங்காடி

Thiruvarur: 'Like education, this is also an important service' - Natural farming market in a school.

PUDUCHERRY

Bahour farmers lead the way in organic farming



Deepa H. Ramakrishnan

PUDUCHERRY, MARCH 15, 2014 13:55 IST
UPDATED: MAY 19, 2016 08:54 IST

SHARE ARTICLE | [f](#) | [t](#) | [r](#) | [w](#) | [e](#) | [0](#) | [PRINT](#) | [A](#) | [A](#) | [A](#)



Farmers of Bahour make their own fertilizers in the form of 'pancha gavya.' Photo: T. Singaravelou

It's 15 years since they have bought chemical pesticides

TAMIL NADU

3 villages in Tirupur to take up organic mango farming



R. Vimal Kumar

TIRUPUR, DECEMBER 21, 2015 00:00 IST
UPDATED: MARCH 24, 2016 11:12 IST

SHARE ARTICLE | [f](#) | [t](#) | [r](#) | [w](#) | [e](#) | [2](#) | [PRINT](#) | [A](#) | [A](#) | [A](#)



Farmers raising mangoes in over 100 acres in the three villages in Tirupur will be involved in the project.

Horticulture department to adopt the villages on a pilot basis

Comparative studies of organic and conventional farming methods suggest a pattern of low input costs, slightly lower yield, but equal or higher net profits for organic farming (Table 2) [19].

Preliminary studies show that farmers shift to organic farming primarily to perceived benefits such as a healthy soil environment, increased health benefits and safer food (Table 4) [20].

A study with small sample size conducted in Tamil Nadu shows significantly lower input costs for organic farming as compared to conventional farming (Table 3) [21].

However, the primary barrier cited by conventional farmers of their reluctance to shift to organic farming is - perceived lower yield.

Higher institutional and government support for organic farming – both monetary as well as structural support will help shift this perception as other benefits would outweigh this perceived problem of organic farming.

Table 1: Comparative studies on organic and chemical farming systems in India

Table 6.1 Comparative studies on organic and chemical farming systems in India

Reference	State	Crops	Parameters	Number of farmers and year	Remarks
(Ramesh et al., 2010)	MH, KA, TN, KL, and UTK.	Various horticultural and field crops	Yield Cost of cultivation Net returns Soil quality	50 + 50 (2008-09)	Organic farms had relatively lesser yield but better profitability and better soil quality.
(Charyulu et al., 2010)	GJ, MH, PB and UP	Various field crops	Yield Cost of cultivation Net returns	15 + 15 per state (2009-10)	Mixed results. In general, organic had lesser yield, low energy input, and higher labour input.
(Forster et al., 2013)	MP	Cotton, wheat, and soybean	Yield and gross margin	Randomized Block Design experiment (2007-10)	Organic had lesser yield during the first year of conversion but relatively similar yield during the second and third year of conversion.
(Patil et al., 2014)	KA	Various horticultural and field crops	Yield Net returns Nitrogen losses	30 + 15 Per village for two villages (2009)	Organic yield has been lesser in most cases but net margin has been higher. Net losses have been lesser in organic farm in case of crop failure. Conventional farms had higher nutrient loss and organic farms had negative nutrient balance or soil nutrient depletion.
(Raj et al., 2004)	AP	Cotton	Input economics and yield	29 + 11 (2004)	No significant difference in yield of organic and chemical farms, but organic farms had better profit due to lesser expenditure, especially in pest management.
(Sudheer, 2013)	AP	Paddy, redgram, and groundnut	Cost of cultivation and net returns	350 + 200 (2010-11)	Organic farms have relatively better net returns.
(Eyhorn et al., 2007)	MP	Cotton	Economic and soil parameters	58 + 112 62 + 108 (2003-04)	Gross margins in organic farms were higher than chemical farms due to their low input cost and premium price. Soil parameter had no significant difference.
(Venugopalan et al., 2010)	MH	Cotton, Green gram, chickpea, and soybean	Yield, quality of farm produce, diversity index and soil parameters	(2001-2005)	Yield and diversity index was slightly higher in organic than chemical farms. No quality difference. Soil organic carbon and zinc were higher in organic farms while pH and exchangeable sodium were higher in chemical farms.
(Panneerselvam et al., 2012, 2010)	UTK, MP, and TN.	Various field crops	Farm production, crop yield, input cost, and income	120 + 120 (2008)	Yield in organic farms was lesser than chemical farms. Profit margin was similar due to lesser input cost.

TABLE 3 Rice and Peanut Production from Organic and Conventional System (Tamil Nadu)

Crop	Rice			Peanut		
	Conventional	Organic	<i>p</i> value	Conventional	Organic	<i>p</i> value
Number of farms	26	24		12	13	
Crop area(ha)	0.76	0.82	NS	0.7	0.6	NS
Yield (kg/ha)	4270	3392	*	1432	1246	NS
Input cost (Indian Rupees/ha)	3976	2682	*	5496	3621	NS
Fertilizer nitrogen (kg N/ha)	68	0		7	0	
Organic nitrogen (kg N/ha)	0	7		0	2	
Price/unit (Indian Rupees/kg)	7.31	7.68	NS	24	24	NS
Gross margin (Indian Rupees/ha)	29886	24517	*	34723	30862	NS
Net margin (Indian Rupees/ha)	25900	21835	NS	29228	27241	NS

Level of statistical significance **p* < 0.5, ***p* < 0.01, and ****p* < 0.001.

Table 3: Barriers for conversion to organic farming as described by conventional farmers

162

P. Panneerselvam *et al.***Table 2.** Barriers for conversion to organic farming as described by conventional farmers.

	Number of respondents mentioning each factor		
	Madhya Pradesh	Tamil Nadu	Uttarakhand
Number of farmers interviewed	40	39	30
Number of farmers responded	27	33	16
Barriers mentioned by farmers			
1. Low yield	15	22	16
2. Problem in controlling pest and disease	5	5	0
3. Non-availability of organic inputs	2	3	0
4. No knowledge	5	0	0
5. No market	1	1	0
6. Not suitable for me	1	5	0
7. Lack of labor	1	2	0
8. Difficulty in livestock management in OF	0	1	0
9. Rain-fed lands	1	2	0
10. Fragmented land	4	0	0
11. Bt cotton not allowed in organic farming	1	0	0
12. Rented land	0	2	0

Note: Nine farmers in Madhya Pradesh and 10 farmers in Tamil Nadu mentioned two barriers. Chi-square test showed a significant difference ($P < 0.001$) across the states mentioning barriers.

Table 4: Reason to convert to organic farming from conventional farming as described by organic farmers.

164

P. Panneerselvam *et al.*

Table 4. Reason to convert to organic farming as described by organic farmers.

	Number of respondents mentioning each variable		
	Madhya Pradesh	Tamil Nadu	Uttarakhand
Number of farmers interviewed	39	40	40
Number of farmers responded	35	40	28
Reasons for conversion mentioned by farmers ¹			
1. Health benefits	23	15	15
2. Soil fertility improvement	35	24	13
3. Reduce the input cost	11	17	13
4. Avoid chemicals	0	15	0
5. Environmental benefits	11	10	2
6. Price premium	10	3	2
7. Quality food	0	5	1
8. To get certification benefits	0	2	0
9. Assured market	2	0	0
10. Credit available	1	0	0
11. Locally available input	0	0	4
12. Diverse food production	0	0	1
13. High yield	0	0	2

¹ Chi-square test showed that distribution of answers was not similar in all three states.

In Tamil Nadu, as of 2019, according to the Center for Science and Environment (CSE) report, nearly 30,000 hectares of land are under organic certification [22]. This is about 0.6% of the net sown area. However, this would be a gross under-estimate of the actual acreage under organic farming as most organic farmers in Tamil Nadu have existing local market linkages to consumers and operate without the need for certification. Combined with the fact that many organic stores can be found in almost all urbanized parts of the state with their own local farmer networks, one could say that this 0.6% of the net sown area is an underestimate of the actual organic and natural farming acreage in Tamil Nadu.



Source: Image

3.8 Conclusion

Globalization as a blanket adoption, as a panacea to highly local issues has created further inequalities, distress and social and economic bereavement in Tamil Nadu, India and internationally as well. The Natural farming movement of Tamil Nadu and its unique success shows that globalization as a be-all and want-all narrative has viable alternatives in grounded local economies that work on local knowledge systems, bioregion based democratic decision making and powerful local bodies. We need to continue to work beyond the global narrative towards a true localization and a prospering agro-economy.

The way forward should be guided by native knowledge systems coupled with decentralised community driven decision making in the fields of agriculture, water body conservation, biodiversity, livestock, food processing, fisheries, forestry with the District, State and Union administration playing a coordinating role.

Rural entrepreneurship empowering youth and women will lead to a strong, locally entrenched economic model which can sell the surplus to the cities. This would solve multifarious problems of job creation, wealth & income disparities, destruction of natural resources, breakdown of social systems. This realignment in policy making is needed to achieve a Gandhian model of village republics founded on JC Kumarappa's Economy of Permanence.

3.9 Important events in the life of Dr.G. Nammalvar and his Books

Date	Event
6th April 1938	Born in Elangadu – Thanjavur district, Tamil Nadu
1963	Graduated from Annamalai University with B.Sc., in Agriculture
1963	Started working for Agricultural Regional Research Station – Kovilpatti
1969-1979	Left Kovilpatti Agricultural Regional Research Station. Joined Island of Peace with Dominique Pire. As part of it, worked in Vadakarai village in Kalakad block of Tirunelveli.
1970s	Greatly influenced by Paulo Freire and Vinoba Bhave
1973-1981	Worked with people belonging to tribal lands of Anjatti and Murattai, Krishnagiri district
1979	Started Kudumbam
1982-1986	Developed 20 plus acres of social forest at Ammangkorai, Pudukottai district
1984	Met and started working with Bernard de-Clerk of Auroville to understand permaculture
1986	Social forest called Kolinji farm started in Pudukottai
1987	Attended 4-week training course by ETC Foundation, Netherlands on ecological agriculture
1990	Founded Network called LEISA (Low External Input and Sustainable Agriculture)

1990	Started Ecological Research Centre for rain-fed cultivation in Pudukkottai district
1994	Created people federation for poison free food
1995	Nominated as Tamil Nadu state co-ordinator for ARISE (Agricultural Renewal in India for Sustainable Environment)
1996	Seed Conservation, to recover and multiply traditional seed varieties; travelled to many parts of the country to obtain more than 50 varieties of paddy, rare breeds of pulses, vegetable, and green seeds
1998	Founded Erode Organic farmers movement
2000	Fought against attempts to patent medicinal properties of Neem along with Vandana Siva
2001	500km walk along the Bhavani river basin to "Save Water Reservoir"
2002	Founded institution called Thamizhina Vaazhviyal Palkalaikazhagam (Tamil Way of Life University)
2005	Helped farmers in Nagapattinam district after Tsunami.
2005	Founded Tamil Nadu Organic Farmers Federation
2006	Left for Indonesia to work on reclaiming farmlands after the Tsunami
2007	Honoured with a Doctor of Science by Gandhi Gram Rural University, Dindigul
2009	Founded Vanagam Nammalvar Ecological Foundation
2013	Launched a Padayatra to rally people against the methane extraction projects in the Delta region of Tamil Nadu
30th December, 2013	Died near Pattukottai, Tamil Nadu, during the Padayatra

- 1.) Ulavukkum undu Varalaru (Farming has a history too)
- 2.) Ennaadudaya Iyarkaye Potri (Hail to my motherland's nature)
- 3.) Ini Ellam Iyarkaiye (Here onward it is Nature)
- 4.) Thai Mann (Motherland)
- 5.) Thaimanne Vanakkam (Greetings to my motherland)
- 6.) Ini Vithaigale Perayutham (Seeds are the weapons of the future)
- 7.) Boomiththaye (Mother Earth)
- 8.) Vithaiyilirunthu Thulirkkum Maruthal (A change begotten from seeds)
- 9.) Vayittrukku Choridal Vendum (Feed the Stomach)
- 10.) Noyinai Kondaadvom (Celebrate Diseases)
- 11.) En Vendum Iyarkai Uzhavanmai (Why do we need natural farming?)

3.10 References

- [1] TNAU, “12th 5 year plan of Tamil Nadu: Natural Resource Management, 2012.” 2012, [Online]. Available: https://agritech.tnau.ac.in/12th_fiveyearplan_tn.html.
- [2] Statista.com, “India: net sown area Tamil Nadu,” Statista. <https://www.statista.com/statistics/975503/india-net-sown-area-tamil-nadu/> (accessed Dec. 10, 2020).
- [3] M. Chinnadurai, “Situation Analysis of Water Resources in Tamil Nadu,” *Int. J. Agric. Sci.* ISSN, pp. 0975–3710, 2018.
- [4] S. Dharumarajan et al., “Biophysical and socio-economic causes for increasing fallow land in Tamil Nadu,” *Soil Use Manag.*, vol. 33, no. 3, pp. 487–498, 2017.
- [5] KANCHANAI REEL, பசுமைப் புரட்சியின் வன்முறை- நம்மாழ்வார்-பகுதி-1. 2020.
- [6] S. Anand, “Nammazhvar ‘converts’ farmers to ‘poison-free’ ways of raising crop | Outlook India Magazine,” <https://magazine.outlookindia.com/>, Dec. 10, 2001. <https://magazine.outlookindia.com/story/nammazhvar-converts-farmers-to-poison-free-ways-of-raising-crop/213981> (accessed Jan. 07, 2021).
- [7] B. Kolappan, “What drives urbanisation in Tamil Nadu - The Hindu,” Jul. 05, 2015. <https://www.thehindu.com/news/national/tamil-nadu/what-drives-urbanisation-in-tamil-nadu/article7386961.ece> (accessed Jan. 07, 2021).
- [8] D. Chronicle, “Tamil Nadu to be most urbanised state by 2030,” *Deccan Chronicle*, Jul. 04, 2017. <https://www.deccanchronicle.com/nation/current-affairs/040717/tamil-nadu-to-be-most-urbanised-state-by-2030.html> (accessed Jan. 07, 2021).
- [9] Census of India, “Census of India 2011 - Provisional Population Totals Paper 2, Volume 1 of 2011. Rural - Urban Distribution. Tamil Nadu. Series 34.” 2011, [Online]. Available: https://censusindia.gov.in/2011-prov-results/paper2/data_files/tamilnadu/Tamil%20Nadu_PPT2_Volume1_2011.pdf.
- [10] B. Pandey and K. C. Seto, “Urbanization and agricultural land loss in India: Comparing satellite estimates with census data,” *J. Environ. Manage.*, vol. 148, pp. 53–66, 2015.
- [11] K. Muralidharan, “People on Chennai’s Outskirts Allege Their Water Is Being Stolen to Feed Malls,” *The Wire*, Jul. 05, 2019. <https://thewire.in/environment/thiruvallur-bore-wells-water-tankers-mafia> (accessed Jan. 07, 2021).
- [12] C. Anupam, “Hybrid Infestation: The Politics of GM Crops in India,” *ritimo*, May 14, 2018. <https://www.ritimo.org/Hybrid-Infestation-The-Politics-of-GM-Crops-in-India> (accessed Jan. 07, 2021).
- [13] K. Akileshwaran and L. Graziadei, “Inclusive growth in Tamil Nadu: The role of political leadership and governance,” *Institute for Global Change*, Jan. 20, 2020. <https://institute.global/advisory/inclusive-growth-tamil-nadu-role-political-leadership-and-governance> (accessed Jan. 07, 2021).
- [14] Directorate of Technical Education, Tamil Nadu, “Details of number of engineering colleges, sanctioned strength and students admitted in engineering colleges during the academic years 2006-2013 in Tamil Nadu.” 2014.
- [15] “1.60 lakh engineering graduates unemployed,” *The Hindu*, Virudhunagar, Jul. 15, 2018.

- [16] "Tamil Nadu continues to produce unemployable engineers | Chennai News - Times of India," The Times of India, Jan. 30, 2016. <https://timesofindia.indiatimes.com/city/chennai/Tamil-Nadu-continues-to-produce-unemployable-engineers/articleshow/50780273.cms> (accessed Jan. 18, 2021).
- [17] B. Paribas, "History of microfinance: small loans, big revolution," BNP Paribas. <https://group.bnpparibas/en/news/history-microfinance-small-loans-big-revolution> (accessed Jan. 07, 2021).
- [18] T. N. Content Management System, "Policy Note - 2004-2005, Demand No.5, Chapter -I, Introduction." 2005, [Online]. Available: https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwjE_6Da6InuAhXm6nMBHQ7IBUQQFjABegQICBAC&url=http%3A%2F%2Fcms.tn.gov.in%2Fsites%2Fdefault%2Ffiles%2Fdocuments%2FAgriculture%2F520Department.pdf&usg=AOvVaw3vy3y3jm16V1qqjdNj43yJ.
- [19] S. Muthuprakash and O. Damani, "Development and Application of a Farm Assessment Index (FAI) - Towards a Holistic Comparison of Organic and Chemical Farming." Nov. 2018, [Online]. Available: <https://www.kisanswaraj.in/category/reports/>.
- [20] P. Panneerselvam, N. Halberg, M. Vaarst, and J. E. Hermansen, "Indian farmers' experience with and perceptions of organic farming," Renew. Agric. Food Syst., vol. 27, no. 2, pp. 157–169, 2012.
- [21] P. Panneerselvam, J. E. Hermansen, and N. Halberg, "Food security of small holding farmers: Comparing organic and conventional systems in India," J. Sustain. Agric., vol. 35, no. 1, pp. 48–68, 2010.
- [22] Center for Science and Environment, "State of Organic and Natural Farming in India." 2020.



4) Case studies of Triple-E – start-ups: Ecology, Environment and Employment

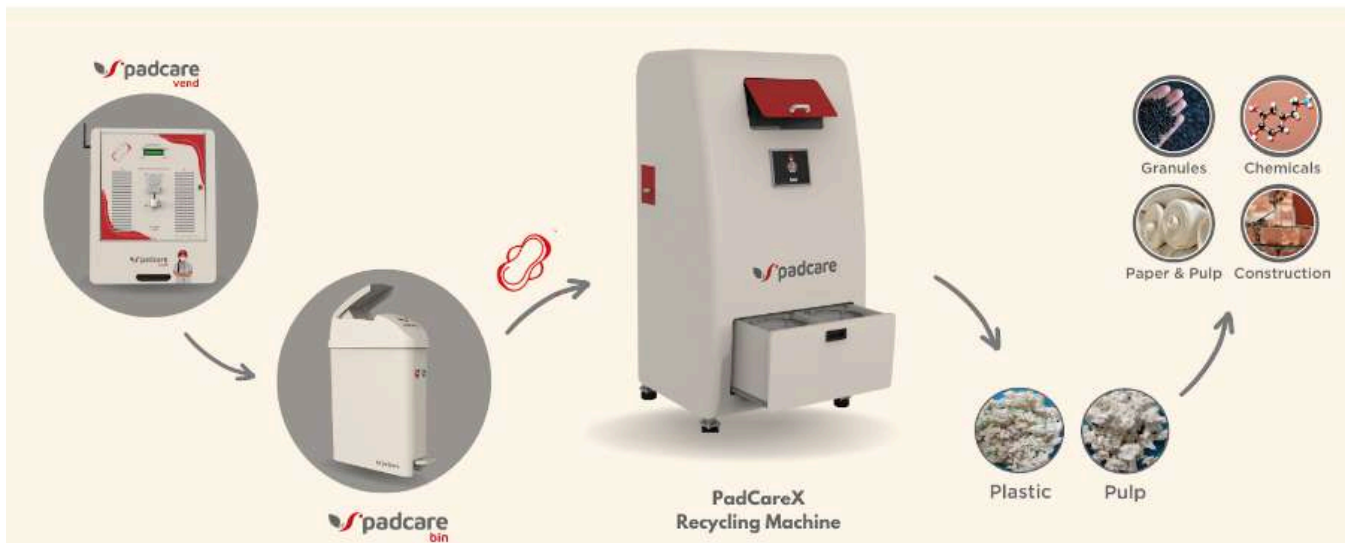
Supported by the Social Innovation (SI) Lab at Pune International Centre (PIC)

4.1 Padcare Labs



Founder: Ajinkya Dhariya Website: <https://www.padcarelabs.com/>

Padcare provides an environmentally friendly workplace for menstruating women across the world and encourages healthier practices in public hygiene on a global scale. By developing a recycling system for used sanitary pads, it has brought positive and significant change in the menstrual waste disposal ecosystem.



Padcare was one of the participants of the National Conference on Social Innovation (NCSI) organised by the Pune International Centre (PIC) in the year 2018. As a participant in the national event, they got an opportunity to undergo mentoring sessions under the Social Enterprise Mentoring Program (SEMP), where the mentors were able to help with technology issues, a go-to-market strategy, pricing, and team building.

Padcare successfully closed a funding round from private markets, including the participation of Shark Tank sharks. Padcare is a good example of building a Triple-E startup that is solving a big environmental challenge while being profitable and sustainable.



4.2 Pirul Handicrafts

Founder: Nupur Poharkar and Sharvari Poharkar



Website: <https://pirul.org/>

Pirul Handicrafts was started in a small village in Uttarakhand named Khetikhan and is successful in creating an alternate source of livelihood for families by making handicraft products such as fashion accessories, gifting products, lifestyle accessories, home decor, etc., made of pine needles, which are in abundance in the village of Khetikhan.

The pine needles undergo slow degradation in the environment, posing a significant risk of forest fires in the region. Additionally, they contribute to heightened surface runoff and a decline in the groundwater table.

Clearing these pine needles from the forest floor is crucial. Pirul tackles this issue by repurposing the pine needles for handicraft production, simultaneously benefiting the environment and fostering livelihood creation in the village. This exemplifies a Triple-E startup, demonstrating positive impacts on Ecology, Economy, and Employment.

Pirul was one of the participants of the National Conference on Social Innovation organised by the Pune International Centre in 2022. During this, they got an opportunity to undergo mentoring sessions under the Social Enterprise Mentoring Program.



Through the mentoring session and with the guidance of the mentors, the organisation has benefited greatly as they are now able to showcase their operation efficiency and increase their production. Due to this, they are securing bulk orders from large-cap companies. Pirul Handicrafts' journey shows how TripleE startups are surviving in the current competitive business environment while also contributing positively to the ecology, environment, and employment of small villages in Uttarakhand.

4.3 Eco Regain

Founder: Swapnil Joshi

Website: <https://ecoregain.com/>



Eco Regain is a Pune-based social enterprise that sources used garments and transforms them into assorted pouches, bags, purses, and bags for the consumer market through creative in-house patchwork design and tailoring. This prevents these garments from being consigned to landfills where they typically organically decompose over 40+ years. Eco Regain is also able to employ several full-time employees.

Some of the benefits they realised through the PIC mentorship program were streamlined product categories, leveraging their data for business decisions, leaner operations, and emphasis on product quality.

Eco Regain aims to scale up its business through various distribution channels, including its retail store, rented spaces in showrooms, distributors, trade shows, and website. They have also made initial sales overseas in Australia, and they hope to increase sales there and in other countries.

They have upcycled an estimated 75,000 kg of clothing so far. Products have been sold to 10,000+ customers. The enterprise has become economically sustainable by almost trebling its revenue, and the revenue stream is relatively more constant and predictable.



Source: Image

4.4 Earth Tatva

Founder: Shashank Nimkar



Website: <https://www.earthtatva.com/>

This social enterprise aims to recycle fired ceramic in numerous landfills into stronger, recyclable tableware such as bowls, plates, and cups. It uses a patented process to pulverise ceramic and turn it into reusable clay. This clay can be moulded into any existing ceramic product. Tableware products are microwave-safe. This enterprise also sells ready recycled ceramic material ("TatvaMix") to small- and large-scale ceramic product manufacturers to maximise the recycling of ceramic

The founder's "epiphany" came in August 2017 when he witnessed prodigious waste on an industrial visit as a student at the National Institute of Design, Ahmedabad.

It was then started as a graduation project in the founder's master's thesis.

Earth Tatva was incorporated as a business entity three years later after creating its prototype products.



Earth Tatva's original goal was to design and sell tableware. To maximise the impact of the innovation, apart from selling the finished products, they also sell "TatvaMix" to other ceramic manufacturers. The founder also gained insights from PIC mentorship in focusing on operational aspects and "user experience," such as product packaging, touch and feel, and emotive appeal, which has a hand-crafted appeal in that no two products look alike. Products can be purchased through their website.

They have two applications of TatvaMix. For casting, they can use up to 60% recycled content. For pottery clay, they can use up to 45% recycled clay, thereby directly preventing these amounts of clay and minerals from being mined.



4.5 TribalSmart Technologies

Founder: Anant Vats

The founder turned over control of his own Information Technology startup to create livelihood opportunities for tribals in southern Gujarat by employing them to make bamboo ballpoint pens from waste bamboo stems in the nearby forest.

He used his engineering knowledge to design and build mini lathes and other machines for his operation and trained several tribal men and women to operate them to make pens. His twin goals are to reuse organic waste and provide a livelihood.



TribalSmart bamboo pens appealed to various customer segments, such as schools and individuals.

Customers readily saw their eco-friendly appeal, both for their use as well as to showcase them to others to generate more sales.

The founder discovered tribal aspirations differ from those of rural-urban dwellers in that the former do not necessarily aspire to ever-increasing material well-being. They are content with working for several hours on days they feel like working.

They also regarded their work at TribalSmart as a means to augment their traditional livelihood, such as making weaving baskets from bamboo and other natural materials for selling to rural traders.

This ultimately limited the commercial potential of the enterprise, and they achieved sales of 1,500+ pens with a monthly income that approached Rs. 40,000.

The founder has relocated to Europe for personal reasons but still retains his passion for continuing the production and sales of these bamboo pens both in India and Europe.

4.6 Craste



Founder: Shubham Singh and Dr Himansha Singh

Website: <https://craste.co/>

The idea for Craste came from the annual problem of farmers in North India burning stalks of crops, creating a huge pollution problem. The founder came up with the idea of making materials for packaging and furniture out of the crop residue and providing additional revenue to the farmers, thus incentivising them not to burn the crop residue.

The startup was incubated at the NCL Venture Centre in Pune, where the technology was built with the help of Government grants and the facilities available at the Venture Centre.

The packaging products are pulp and paper, which are food-grade and can be tailored to customers' requirements.

The furniture product is a highly durable wood-equivalent straw panel board using a formaldehyde-free adhesive. It is tested for strength at Government labs.

Large multinationals have been early customers of Craste. Participating in an accelerator program in the US and Switzerland also helped get global customer access and credibility.



The experimentation has been not limited to the technology but also how they collect the crop residue effectively by building captive units near the farms. They have now built their manufacturing facility in Morena as well.

Various awards and recognition by international organisations have made Craste a leading and well-known organisation in their space.

The founders have kept in touch with the PIC mentors even after the mentorship program to update them on the progress and seek advice on their initiatives.



4.7 Shramik Janta - Wild honey project (Tribal Products)

Founder: Adinath Ombale

Website: <https://shramikjanta.org>



The founder runs an NGO working for underprivileged Adivasis in Satara district of Maharashtra. This particular initiative was triggered by the loss of livelihood among the Kataris (an Adivasi tribe) due to the privatisation of lakes where they used to fish.



The founder decided to train the Katkaris to harvest wild honey and build processing units to produce and market wild honey.

The Katkaris were trained by DST to harvest wild honey in a non-violent way, cutting 75% of the honeycombs, thus not killing the bees, letting the honeycombs grow again, and maintaining the ecological balance of the region.

The Katkaris were given special protective gear for doing this job. Women were trained to process and package wild honey and sell it in metros such as Pune and Mumbai.

Most of the honey sold in India is not natural, and this initiative is a commendable one to bring pure wild honey to consumers, collected in a non-violent way while generating employment for the Katkaris.

The NGO helped the Katkaris form their cooperative to sustain the initiative. It may not be possible to scale one such project beyond a certain point, but multiple such projects can be planned for scaling this initiative in other parts of the country.

PIC mentors guided the initiative, specifically in packaging, branding, and marketing.

4.8 Golden Feathers [Mudita & Radhesh Pvt.Ltd.]

Founder: Radhesh Agrahari



Website: <https://www.goldenfeather.co.in/>

Golden Feathers [Mudita & Radhesh Pvt.Ltd.], founded by Radhesh Agrahari, addresses the environmental challenges posed by the food industry, particularly the disposal of butchery chicken waste (BCW). With an annual upcycling capacity of 57,000kg of chicken feathers, the company has successfully depleted a significant carbon footprint, amounting to 762,090kg. Their innovative process involves collecting BCW from local poultry slaughterhouses, subjecting it to 27 sanitisation processes, extracting chicken feathers, converting them into pulp, and ultimately creating high-quality yarn for handloom cloth.

The Golden Feathers product line, a result of this unique upcycling method, offers cloth items such as running cloth, quilts, shawls, jackets, embroidered stoles, and mufflers. The chicken feather-based fabric proves to be ten times warmer, softer, and more durable than existing natural and manmade fibres, providing not only a sustainable alternative but also meeting consumers' preferences for chic and protective clothing.

In terms of impact, Mudita & Radhesh Pvt Ltd has made significant strides in both social and market aspects. The company engages over 200 rag pickers and employs more than 1200 tribal women. Monthly processing of 50,000kg of chicken garbage also yields 25,000kg of fertiliser.

Hand-weaving activities produce 350 kg of wool monthly for weaving, 2,150kg for quilts, and 1,000kg for non-woven materials and papers. The feather-based fabric showcases desirable qualities such as softness, lightweight, and durability.

With the ability to pass through a finger ring and a lifespan of 50-70 years without being affected by environmental changes or damage, the product proves to be a superior alternative to natural, man-made, and synthetic fibres.



The company has received notable recognition for its contributions, winning awards such as the TATA Social Enterprise 2023-24 in association with IIM Calcutta, 10th Aegis Graham Bell Award for Innovation in Clean Tech in 2020, the Business World Future of Design Award in 2021, and the 9th CII Design Excellence Award in 2019.

Additionally, Mudita & Radhesh Pvt Ltd secured the German Design Award (gold) in 2020-21 for Excellent Product Design-Lifestyle and Fashion and was featured in the Top 8 G20 Young Entrepreneurs' Alliance Summit 2023, India.

In a recent development, the company received a significant order worth one crore from a global bank for their bags product. The innovative feather-based fabric is now being utilised in the bank's welcoming kits, further highlighting the company's success and recognition in the industry.

The company's participation in the PIC Mentorship Program played a role in its business growth, providing valuable guidance and support to navigate the complexities of entrepreneurship. Mudita & Radhesh Pvt Ltd continues to make strides in sustainability, innovation, and social impact, solidifying its position as a leader in the eco-friendly textile industry.



5) Nagaland entrepreneurs dream of business

Neichute Doulo

The onset of extensive government jobs in 1964 introduced a cash economy for the state of Nagaland. Within 25 years, the isolated subsistence economy of the Naga villages was changed forever with the income from government jobs. It heralded the new age of the modern economy where cash ruled supreme.

It demolished the Paddy and Livestock supremacy economy. With Nagas having no Landlords, Nobility and Monarchy, and every Naga having land ownership, the cash income from the tertiary sector- Government jobs, immediately improved the living standard of the Nagas.

This was not so for Nagas living in Manipur state; things began to speed up only in the 1990s as more people got into Central government jobs. For Nagas in Assam, the cash economy crept in sluggishly.

The Nagas in Arunachal Pradesh and Mon-Tuensang areas of Nagaland state, though they had good political representation with several MLAs, cash income did not speed up as it could have. Rather, political platforms seemed to have entrenched government subsidies and grant-based economies.

When you look back at the recent history lane of the Nagas' experience with modernity, a government job meant providing white rice to the family when others ate only brown rice during the 1960s. It meant providing CGI roofing houses for the family when others had thatch roofing in the 1970s and 80s.

It meant family members could go off to far places to study. It meant that the parents' hospitalization was borne by the government. It ensured that when you retire, you could build a concrete building from your GPF/Pension funds and have enough for the table till you go to the grave.

And what is more, after your death, your spouse can still enjoy your pension! Is this job not good?



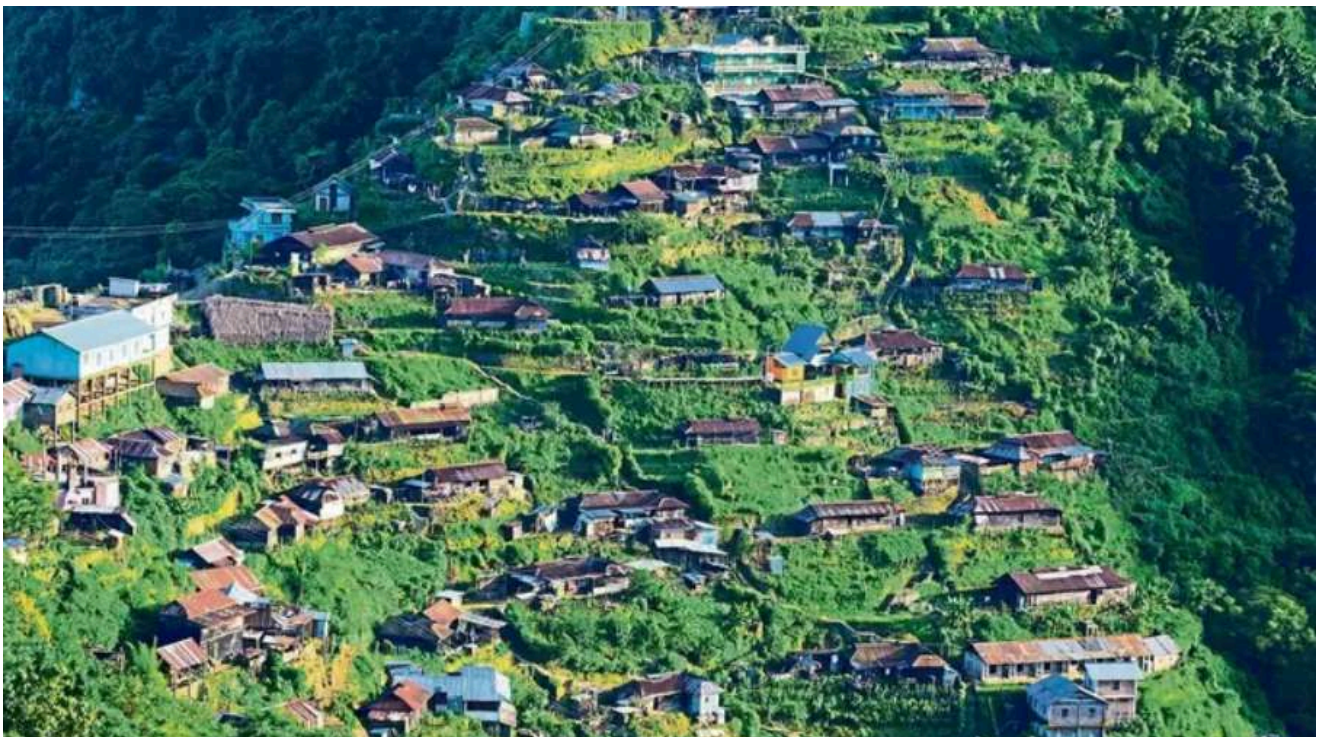
[Source: Image](#)

That was how the parents reprimanded their children whenever they showed interest for an alternative work instead of a government job. Many could not see that government jobs had no inheritance but Business had.

The Bible states ***“Where your heart is, there your treasure is”***. Is our treasure therefore in government jobs only? This is where we must review our social priorities. Nagas are yet to experience cash income from business and corporate jobs. Developed societies know this, but not so for Nagas.

Therefore, it is natural for Nagas to associate income and success with government jobs only, given the reality of the Naga situation till 2005 with Nagaland being branded as dangerous and a war zone by Delhi.

This made government jobs the best and to a great extent, the only option for Nagas till the 1990s. On the contrary, Nagas are missing the much higher income business and jobs in MNCs. We are unable to morph with the rapid change of economic tides and the opening of the Naga market in India and the world.



The pervasive Government jobs in Nagaland developed a new social conditioning within communities. The density of government jobs for a village or community became the fundamental yardstick of development and growth across Nagaland. The number of Gazetted officers that a village or Tribe has automatically becomes the index for progress.

Clocking government jobs became synonymous with development. The statistical development index was measured with the number of government servants a Naga village had. Agriculture and Business are non-entity indicators of economic development and growth. Jobs in MNCs and Private sectors are not even counted as jobs in most parts of the Naga society.

Gradually, the concentration of government resources in the hands of some communities created a huge disparity of wealth-holding amongst different Naga communities. This led to a huge divide in the Naga society. The limited idea of a cash economy from government jobs and expenditure only, slowly led to the disparity of Income distribution in Naga society. The differences in the living standard, physical development indexes, health facilities and basic infrastructures of connectivity began to be skewed towards those districts which had more bureaucrats.

The disparity of government fund allocations amongst communities became more glaring and evident as those who occupied the government chair scored more of government funds for their areas and deprived others. Could this deprivation also lead to the “*Frontier Nagaland*” slogan? There are other causes, but disparity of government resource allocations is obtrusive.

For the Nagas living in Myanmar, even to date, the cash economy is very low. There is no government job, and connectivity is almost absent. Will the Nagas in Myanmar wait for government jobs and connectivity to catapult their economy into a modern economy?

Connectivity is a real impediment and is an external factor, but the job is not and can be compensated if connectivity exists. This can happen only through entrepreneurship.

Sadly, income from business is almost non-existent amongst the Nagas, be it Manipur, Nagaland Assam, Arunachal Pradesh, or Myanmar. The Nagas' failure to appreciate and understand the essence of business has led to deriding business and prioritizing only government jobs.

The government resources in Nagaland are huge given the Indo-Naga political dynamics. But the market resources and money are far bigger than the salary from government jobs and expenditure.

The strategic geographical position the Nagas occupy has excellent business opportunities with the biggest markets in the world - the Indian and Chinese markets. It only awaits the Nagas to ride it through business and not be frozen in the time zone of government jobs and expenditure. Can we seize this mind-boggling opportunity of market economy?

How do we create market economy?

The time has come for Nagas to move beyond celebrating only government jobs. We must appreciate other jobs and professions as well. This calls for shift in Mindset and Social Expectations. There are many more jobs far more fetching and rewarding than government jobs today.

When the Indian economy changed from the Nehruvian economy to a Liberalized, Privatized and Globalised economy in 1991, job opportunities in MNCs have outshone government job incomes and securities.

The opportunities from the market have been mind-boggling, where even a Micro Entrepreneur or Self Employed could easily exceed the incomes of what government jobs can generate.

Therefore, the Naga society must move beyond government jobs and begin to appreciate the limitless income opportunities of the market economy.

We must change our priorities and our highest social expectations of only securing a government job. Not because government jobs are bad, but today, there are many other opportunities and vocations better than government jobs.

They may be less visible in our society as of now, but their reality will only increase. In fact, it will spike by 2030. This reality has to sink into the minds of the Naga masses.



We have seen the economic miracles of government jobs for our people - be it Education, Health, Housing, Travel, and Pension. So, it is not a surprise to see endless celebrations for someone who gets promoted in government jobs, or the felicitations of people with their photos for securing clerical or administrative jobs in local newspapers daily by the Village Unions, Tribal Unions, and peers. Sadly, these social expectations are limiting our people to look beyond government jobs.

In Nagaland, there is a near absence of industry and commerce, due to the conflict history and peculiar societal mindset. Most think, that only government jobs provide employment security. This is relative. What one may see as a secured job may be seen by another as a lack of growth and sounding the death knell for creativity and drive. JM Keynes, the British economist who explained the behaviour of business cycles in the 1930s said: ***“In the long run, we are all dead”***.

Can the lifetime job syndrome of a government job kill our creativity, growth and drive? Not true for all, but since many government jobs come without work in Nagaland, there is a huge semblance.

Pride in work and dignity of labour is immaterial when it comes to securing a government job. Nagaland has about 1.4 lakh government employees making 12.5% of the employable population employed in the government while the Indian national level stands at 2.8% only.

The reality is, that Nagas still want more government jobs even in the face of stupendously spending about 70% of the state budget on salaries, pensions and servicing debts. Strangely 90% of Nagaland's budget comes from Delhi's benevolence!

Can we run a modern government like this? Nagaland may become a failed state not because Nagaland lacks economic resources, but because the present human element of Nagaland brought about by the government job culture can destroy all responsible democratic governance and economic resurgence!

For instance, the Directorate buses in Kohima, ferrying government staff are found honking in the town at 10.30/11 a.m. and found back again in the downtown at 3.30/4 pm, braving all traffic jams of Kohima which takes about 1 hour from downtown to secretariat.

In such situations, government staff will be spending hardly 2 to 3 hours in their workstations. In the district government offices, many employees simply don't come to offices! Our Naga character of hard-working culture, grit and honesty are becoming quite rare in the corridors of government offices.

The saving grace is that there are very few government servants who work hard and keep the departments alive, while the vast majority seems to be on a picnic spree. Things appear doomed because the Indian socialist system has made it very difficult to fire off its workers!

The relaxed government job culture has become the benchmark for white-collar jobs in many Naga families and society at large. Parents in Kohima exasperate if children working in Private companies leave home at 8 AM and come back at about 6 PM.

They question, *'How can you be so sincere in your job?'* Finding comfort in government jobs with hardly working for one-third of the working days and drawing full salary has become a normal thing. Many consider it God's blessing! Do we follow a different Bible? Incredibly, it is said that some people even draw 2 to 4 salaries from different government departments, a feat that can happen only in Nagaland!



[Source: Image](#)

The saving grace is that there are very few government servants who work hard and keep the departments alive, while the vast majority seems to be on a picnic spree. Things appear doomed because the Indian socialist system has made it very difficult to fire off its workers!

The relaxed government job culture has become the benchmark for white-collar jobs in many Naga families and society at large. Parents in Kohima exasperate if children working in Private companies leave home at 8 AM and come back at about 6 PM.

They question, *'How can you be so sincere in your job?'* Finding comfort in government jobs with hardly working for one-third of the working days and drawing full salary has become a normal thing. Many consider it God's blessing! Do we follow a different Bible? Incredibly, it is said that some people even draw 2 to 4 salaries from different government departments, a feat that can happen only in Nagaland!

Many would rather take "Good pay, no work" which is the precedent for the collapse of a great civilization. The Naga civilization is synonymous with Liberty, Freedom, and Equality. We don't discriminate against anyone based on birth, profession or religion, unlike the Indian caste system where one's caste is determined by birth. The Naga civilization is built upon the pillars of equality, sharing of wealth, and opportunity for all. Hard work is celebrated. But this model is changing extensively with the commencement of invasive government jobs.

Hoarding of wealth was seen as shameful and holding lands beyond one's need was considered selfish and uncivilized. Sharing of wealth through the Feast of Merit culture was the point of reference for being rich. We nurtured republicanism and made every village a republic.

Today all these are changing. Some changes are necessary for us to live in the global economy. We need capitalists. We need to hoard wealth in the right way. Can we match the economies of modern times stemming only from government jobs and expenditures? Certainly not. We must change our social expectations and priorities.

Sometimes one wonders if the craze for government jobs is becoming the cemetery of Naga talent, creativity and drive. The social expectations, family pressure, and Church recognition of the government job as the ideal job worth pursuing is limiting our youth and society to become more vibrant. We need to grow and ride the new tides of economic opportunities offered by market and business.

The extreme dependence of Nagas on government jobs has not only fueled corruption and dependency on Delhi handouts, it is reducing our entire economic system to a government salary-based economy. Nagaland, being a non-revenue state, the swelling of government jobs cannot be sustained. It has ravished the human element of the Nagas to a large extent. No government pays its servants to become rich. Extraordinarily, the Nagaland case is singular.

What is being rich in the Naga context?

Being rich is relative. For someone, Rs.1 crore annual income may be rich, while for another, Rs.10 crore annual income, yet to another it may be Rs. 100 crore annual income and to the ambitious, Rs.10,000 crore annual income! No government job of the day provides Rs.1 crore annual income! Should one misappropriate public funds to become rich as wanting to be rich is an instinct? Are we limiting the Naga mind to less than Rs.10 crore annual income? The human element - the character of the people of any given society determines its independence and self-reliance. Are we Nagas limiting our human capital to only government jobs? The dependence on government rather than the market for wealth and income is contributing to the cancerous corruption plaguing Nagaland. Gunnar Myrdal, a Swedish economist, noted in the 1960s that corruption in India is ***“endemic and chronic”***.



[Source: Image](#)

Perhaps this is the biggest casualty of the Nagas experiment with the Union of India since 1963. Corruption does not create jobs, rather it conceals wealth. For instance, a Rs.100 crore company can employ 150 people or more, depending on the nature of the business. But in corruption, Rs.100 crore can be siphoned off with a stroke of a pen. Corruption is accentuated when public servants want to become rich illegally. This happens more often than not. Nagas seem to have erroneously associated wealth with government jobs.

Gone are the days, when a government officer was the only one who could drive a car to the village when the rest walked bare-footed. In Nagaland, interestingly, a government officer retires with his/her government cars, government bungalow and government land! But this is becoming less envious as many micro and petty Naga business owners are beginning to own more lands and houses than government servants.

This is just a recent trend. It will only accelerate and the velocity will speed up in the coming years. It is assessed currently that 70% of the buildings in Nagaland are owned by government employees, 20% are owned by Contractors, Suppliers, and Politicians and the rest 10% is owned by the business class in Nagaland. It might take about 15 to 20 years for the Naga society to see the change of hands in wielding wealth.

This is so because; currently government servants can easily and quickly access bank credit, not so for the Naga entrepreneurs. Banks do have a major part in building wealth but this also will change. Can we see the change and ride the change?

As more Nagas take up business seriously and with International businesses opening up in Nagaland, the limited financial flow to Naga Entrepreneurs due to the control of the Government will give way to the huge inflow of financial capital from foreign capital within the next 25 to 50 years. Will the Naga entrepreneurs be ready to absorb the emerging market? At the moment, we are not prepared. This opportunity will come sooner than later. Times are changing. We need to change our society's priorities and embrace the new economic waves.

Am I against Government Jobs?



Not at all! There is nothing wrong with having a government job. But to think that it is the best job is erroneous. When it comes to the creation of wealth and opportunities, the Naga rationalism seems to have gone astray.

Many think that clearing the UPSC or NPSC exams will bring success and riches. This is a fundamental flaw in aspirations. Public commissions are meant to streamline people to serve the policies of the state and execute them well. No government designs the system to make the government servant rich!

Another Naga tragedy is; that most think getting elected as an MLA can take them to the highway of riches. This too is wrong. Being elected as an MLA is to lead and serve, not a gateway to riches! What we experience or see may be different, but the government system and structure is not designed to make people's representatives millionaires and billionaires. This is where we need change too.

If we want to become rich, we need to do business. No nation dependent on government salary becomes rich. We need to appreciate entrepreneurship and nurture entrepreneurs. We need to celebrate business. We must acknowledge and nurture entrepreneurs, not associate entrepreneurs with ***“earning a livelihood since they did not get a government job”***.

The question is, can business spring forth in Nagaland when family, society, church, and schools look down on business? Can we brand entrepreneurs to that of a petty trader, a woman selling vegetables on the streets? Such livelihood activities have a certain amount of entrepreneurial traits, but they are far from being entrepreneurs.

Can we inspire our children to take up entrepreneurship with such branding associated with livelihoods? Should we associate entrepreneurship with failure to secure a government job? Our wrong opinion of entrepreneurship, unknowingly or otherwise, might be causing Nagas to shy away from business. This is leading to a rude shock where only the non-Nagas take up trade and commerce activities in Nagaland.

It can dispel the cream of our youth away from business. We must rightfully associate Entrepreneurs with Job Providers and Wealth Generators. Correct branding may unleash a wave for the bold and smart Nagas to embrace entrepreneurship.

Naga society must change. We cannot limit the ambitions of our children to that of government jobs only! Our children need to dream of audacious opportunities. We see many young talents wasted, waiting only for government jobs till they are 35 years of age.

Once they cross 35 years, it is too late for many to start in life. In fact, the government must review the age limit to apply for government jobs from 35 to 30 years of age. Why relax under tribal reservation? We must challenge our youth with more possibilities.

If we want to see Nagaland become a developed state, we have no other choice but to encourage hundreds of Nagas to build strong businesses, generating Rs.1000 crore balance sheet annually. Do we have even one? Can any IAS or NCS officer spread a balance sheet of Rs.1000 crore annually?

Of course not! Then who can do that? The Entrepreneur. The question is, do the Naga society encourage our youth to aspire in becoming Entrepreneurs?

It is a challenge to make even Rs.10 lakhs per annum with a petty trade. Hence, it is not easy to make Rs.100 crore business income annually. On the other hand, it is also not easy to be unemployed and stay broke. Being unemployed and poor for 10 years is very tough.

Working hard and smart, generating money is easier than doing nothing. Some may scream that this statement is outlandish. But ask anyone who has failed, they will say success is luck and accept their fate.

We need Entrepreneurs

Society's priorities and expectations are important to shape the future. Our thoughts, our hopes, and aspirations determine our future. We can make our future prosperous with entrepreneurship.



Unemployment is not attached to entrepreneurship. It is the other way. We need entrepreneurs to generate resources for the government to employ more people. It is time for us to change. We can begin by stopping to celebrate only government jobs.

We can celebrate other jobs and professions as well. The craze for government jobs seems to have gone overboard and is becoming detrimental with regard to the social consciousness of wealth and job creation.

The challenge for those very few Nagas who have taken up business much against the wishes of the society, withstanding the ridicule of family and society, they must become ambitious and cross the Rs.1000 crore annual balance sheets.

They must not limit themselves to Rs.10 crore or Rs.100 crore annual incomes. It may be tough. But who says failure is easy anyway? Business ambition must catapult Naga entrepreneurs to Rs.10,000 crore balance sheet annually by 2035. Then, maybe, Nagas will understand and appreciate business under a better light.

Without entrepreneurs, we are doomed to government job dependency, subsidies and grants from Delhi. I hope, our Naga society changes and encourages entrepreneurship. For this is the best way to make Nagaland, a land of opportunities and riches.

A bureaucrat in Delhi quipped, “Nagaland is not a land of festivals but a land of government servants”. If we take up business in a war footing fervour, Nagaland can be propelled into a developed society within 20 years because of our excellent social capital, human capital and land-holding system.

By the age of 10, most Naga kids know Nagamese, Hindi and English apart from their mother tongue. The learning exposure for Naga kids is far more wider than that of many other countries. The tragedy is our society limits our kids to only government jobs.



The Indian market has 140 crores population which the whole world is envious of. However, this opportunity may be formless and meaningless for Nagas since we don't engage in business. If we take up business, Nagas will turn the fortune of Indo-Naga conflict to our favour.

India will become our market and asset. Delhi will not be able to contain the gushing out-of-business waves amongst the Nagas because NER India has a 98% international boundary.

The Nagas' ethnicity, culture and living habits are similar and familiar with the ASEAN economies. Business partnerships will be natural. India's Act East Policy has to be through Nagas.

Nevertheless, this will have no relevance for Nagas if our focus is only government jobs and we do not build entrepreneurship. No economy can develop without entrepreneurs.

No government can survive without business and a strong tax base. Nagaland is no exception.

Developing entrepreneurship is not an option. It is the option. Only a strong entrepreneurial breed can give the much-needed confidence to Nagas. This will make the Nagas' association with India prosperous.

5.1 Case Study - D/CAFÉ by Dilli Khekho



Caffeine Fever Laying the Groundwork

Dilli Khekho is the proud owner of the famous café chain in Kohima called 'D/Café.' This café is located in Jail Colony, Police Headquarters (PHQ), and in the Main Town of Kohima. Dili pursued his higher secondary to college days in Shillong, where he spent most of his free time hanging out in Cafes. He looked forward to it every evening because there were no cafes back home. Dili secured his B.SC and M.SC (Both in Environmental Science) at St. Edmunds College and NEHU Shillong, respectively. Dili comes from a family of 7; 3 Brothers and 2 Sisters.

As he spent his time visiting different cafes in Shillong, the thought of starting his own coffee shop was percolating in his mind for quite some time now. But in the same breath, he was aware of the obstacles that stood in his way. The financial blockage was his biggest concern. Plus, there was nobody in his life at that time to shower in the provision to make his plan come to fruition. Once he completed his Master's Degree, Dili came back to Kohima and started working as a teacher for over 4 years.

In 2015, Dili had to travel to Pune for some work obligations. He also ended up meeting a friend of his who had been living in the city for a period of 14+ years. He took Dili to an array of cafes since he knew his love for coffee. One day, they ended up going to an old coffee shop known as 'COFFEE JAR.' The owner of this café also had an immense passion for the beans prior to becoming a full-fledged owner.

The owner has a staggering 50 different outlets in various cities of India. Dili's friend describes the owner as a humble person, whose business is constantly growing both in quality and quantity. As Dili and his friend were having this chat inside the café, Dili popped the idea of having his own café in the conversation. He told his friend about how he always wanted to open a café in Kohima or Dimapur.

As they were chatting, they witnessed the owner Cini Baig arriving to the café on a Scooty. Dili described him as a simple, down to earth type of person who was still grounded and remained true to his roots. As he stepped in the café, Dili's friend introduced them saying "Hey Cini, you need to meet my Friend. He is from Kohima and he will be in the area for a couple of days, and he also wishes to start his own Café."

Here, to which Cini replied "Hey Dili, it's nice to meet you. Let's sit and talk." Cini Baig right away told him about the training he needs to undergo to perfect this craft. He further went on to describe the training period into 3 parts:

- 1st Month – This phase is very interesting since you get to learn new things as a rookie.
- 2nd Month – Here, things start to become a little mundane because you are repeating the same thing over and over again.
- 3rd Month – As the final month comes to a close, one gets to see if they are actually committed to this trade or not

Dili again describes Cini as a godsend angel because he assured him that he will be there to help him. Cini was ready to provide Dili with the coffee beans and also offered to find a place for him to get professionally trained. All of these signs acted as a divine confirmation for him to continue working towards his passion until it becomes a reality.

Cini ended up connecting Dili to a group of Americans and helped him get trained at the Zera Coffee Company, Texas back in Bodhgaya, Bihar. Dili stayed there for a period of 5 months and regards his trainees as meticulous and quite specific about their practice. He remains extremely grateful to have been trained by them.

Going into this, Dili had three important objectives when he first started this coffee shop.

- To create and embody the coffee culture in Kohima.
- To make the customers feel at home.
- To sustain and grow by following the three vital Cs i.e., Consistent food & service, Cleanliness, and Customer Service.

But Dili also talks about how he felt intimidated by the potential challenges that was going to come his way. He says that things would have been easier if he already had a name with proper customer base since social media was not present during those times. So, starting anything new was a difficult task in itself.

Financial challenges

Dili took a break for 6 months from teaching in Baptist High back around August of 2015. He kept a substitute and it was a leave without pay. The training consisted of learning skills such as Barista, Management, etc. He started working again in the school in January of 2016 once his training matured. But prior to him leaving for his training,

Dili shared this new pursuit with a friend/uncle of his called 'Mr Haresh Vaswani,' who lives in Shillong. Mr Haresh Vaswani is a successful entrepreneur who has numerous restaurants, lodging hotels and a sheep yard.

When Mr Haresh Vaswani heard about his training, he seemed very happy with the idea. And although, he didn't provide the financial means right away to Dili, he advised him to have faith in God's divine time and keep planting the little seeds of hope. Here's what he said "Trust in the Lord, the Lord Will Provide." Dili had also shared this plan of his with a close colleague who was just as supportive as the rest. One day as they were having a cup of instant coffee in jail colony after school, his colleague advised him to start his café soon.

They went together to see the KF Complex, which was partially empty at first. Dili adored the space but he unfortunately did not have the financial means to pay the security deposit. His parents were also not in the position to support his endeavors. So, he went on to seek monetary assistance from his relatives. The owner of the building priced the space at 1.8Lakhs, to which he reduced to 1.5Lakhs after negotiating with Dili. Once he booked the space, his next objective was to renovate the place.

He approached his Uncle Haresh who lives in Shillong for proceeding with the café plan. His uncle was kind enough to invite him over and provided him with an assistance of 1Lakh. Dili used the money for buying a set of sofa seats and for renovating the space. But he still needed money to buy the most important thing i.e., a coffee machine, which he told his dad about. His dad had the utmost trust in him and had gotten him the money through a group that lends money at a low rate of interest.

He borrowed a sum of 3 Lakhs from them and used it to furnish the place within 6 months. Dili successfully launched the café in 15th September, 2016. His dream had become a reality and he couldn't fathom the Lord's goodness.

What do his loved ones think?

Dili's friends and families were always supportive of his endeavors and decisions. They never questioned him but only supported him with a dose of reality. However, there were a lot of naysayers who questioned him and his business. They were also adamant in believing that his coffee shop would fail in a year or two, especially because of the unpredictable market. But Dili always remained headstrong in the fact that his love and passion for coffee will always make him and his business successful. With 7 years and running, you best believe that the haters had to sip their own negative words down with a lot of caffeine.



A promise to my father



Dili's father unfortunately passed away when he was still renovating D/Café. His father had seen the place while it was under construction and was already proud of him. Here's what he said verbatim "My Dad trusted me and told me that I will flourish in life."

However, his father was concerned about his eldest and youngest brother. Prior to his dad's passing, they had planned to build a home in their Pudunamei Village. So, he always carried the burden of building a house of their own.

Over the years, Dili had saved some money to which he used for building the house in November of 2021. He successfully completed the house in just a span of 6 months. He fulfilled his promise to his dad and knew he would be proud and smiling from up there.

A message to aspiring entrepreneurs

Dili has a core set of beliefs that he wishes to indoctrinate in the younger generation of up-and-coming entrepreneurs. He wants the youth to find their niche and work on perfecting it.

But if they wish to start a café, then they have to learn and be extremely skilful. The market is very competitive and the subpar performers will not last.

His advice is for them to seek the required training and work as a Barista first. Then, they can start saving up, branch out and have their own coffee shop one day. He also doesn't want the young folks to give up or be discouraged because they have limited resources.

In Dili's words "I Want them to look at me and be inspired. I Started without a single penny and still made my dream come true."



He wants people to know that it's still possible to start a business without any savings. As long as one is determined and committed to the dream, anything is possible. Dili is hoping to grow his reach as time progresses and to also provide employment to struggling youth. He hopes to give back to society in this way.





RAJIV GANDHI
INSTITUTE FOR CONTEMPORARY STUDIES

Rajiv Gandhi Institute for Contemporary Studies

Jawahar Bhawan,
Dr Rajendra Prasad Road,
New Delhi 110 001
India

Please visit us at:



www.rgics.org



<https://www.facebook.com/rgics/>



<https://www.youtube.com/user/RGICSIndia>