

*To Pierre, with who I started my discovery of India.
I wish I could have bear your grumbles about «this fucking thesis».*



COMMUNITY SUPPORTED
Agriculture

IN THE INDIAN CONTEXT



THANK YOU

To Sabina Von Kessel and Kshitiz Anand, teachers of the Transcultural Design Master, for showing us India and for their patience.

To Troy Erstling, my tutor, for helping me with my English.

To Nathalie Templier, Emmanuel Gilardeau, Chantal Mac Gowan and Geneviève Correia for all their wonderful courses and talks which helped me find my own vision of design.

To my mother, who teaches me about the wonders of Nature and the importance of ecology.

To my parents, who gave me the chance to become a designer.

And to the HfBR team and Flora, for their precious momentary loss of concentration.



ABSTRACT

At a time where responsible consumption, management of the waste and resources and sustainable development are crucial issues, CSA seems a topical subject.

This paper will focus in understanding what are the cultural conditions when Community Supported Agriculture can work in Bangalore, India.

The exploration provides a brief overview of the cultural and historical implications of agriculture in India and its issues today, embedded with political implications.

It aims to find out the whys and wherefores of the assumed benefits of organic farming, and its repercussion on consumers, farmers and the environment. It explores the close relationship of this alternative method of agriculture to Indian traditions, and to what extent this concept can be valid in a hungry world. Finally, the functioning of a CSA system in general and specifically in India was examined in the study, which concludes by showing Bangalore is an innovative, receptive ground to organic and social initiatives.

These perspectives will be used to better understand how design might be used in a context where conventional systems have failed, and how a design thinking approach can encourage sustainable behavior for our food cultivation and consumption patterns.

The research methods conducted during the study involved primary sources such as field observation and immersion, questionnaires, recorded interviews with professionals and local people. I had informal discussions and participated in collective brainstorming. Online research and literature reviews were also take or consulted as secondary sources.



FOREWORD

When working as a designer, especially in India, one has to not only face, but also deal with many social challenges. You often ask yourself the following questions: Why do I design? What impact will my design have? Who will it affect? And what do I achieve with my work? Another question I am often lead to ask is: How can I develop new relations and values between people? People not only as consumers and producers, but taking into account all aspects of human nature. In a foreign and unknown culture, you have to be aware of every little detail, which can be crucial to the success of your design.

Eager to experience a different vision of life, I left my comfort zone in 2013 to join the Master's program in Transcultural Design in India. Last year, our teacher Sabina brought my class to a talk of the journalist P. Sainath who is highly involved in the farming issues of India and social justice. I was devastated to hear about the general living conditions of the majority of Indian farmers, who are caught up in a cruel irony where they work to feed the others but have no food for their own families and are barely recognized and helped by their own government.

After witnessing this gross inequality I decided to work on Community Supported Agriculture to design a system, which would connect people who lost touch with each other in a context of globalization. I strongly believe design can be a tool to make the world a better place and I am convinced that design can encourage people towards a social justice.

As a French Graphic Designer, my sense of aesthetics may appear shocking in India. However, here decoration has a deep sense of meaning and identity, strongly inspired by nature and the connection to the universe. I think the power of vernacular and traditional culture should not be given up to meet the aesthetic standard of the west and I will try to implement it in my design.



CONTENTS

INTRODUCTION 11

PRACTICES BEFORE AND AFTER *the Green Revolution* A short overview of the history of agriculture in India 13

- †.I *Traditional agriculture* 15
- †.II *British Colonialism* 19
- †.III *India's agricultural growth strategy after independence* 23
- †.IV *Present situation* 29
- †.V *A glance in the future* 33

ORGANIC AGRICULTURE, an “everybody wins scheme”? Organic agriculture and its benefits 37

- †.I *A Definition* 39
- †.II *Health benefits*
 - † For the consumers 43
 - † For the farmers 47
 - † Environmental benefits 55
- †.III *Can Organic Farming feed the World and bring more Social Justice?* 59
- †.IV *Organic Farming in Karnataka* 65

CAN CSA BE SUSTAINABLE *in India?* Community Supported Agriculture 73

- †.I *A Definition* 75
- †.II *What is CSA?*
 - † *A short History* 77
 - † *Values* 79
 - † *Pros and Cons* 82
- †.III *Organized and Unorganized fresh food supply in India*
 - † *A Definition* 87
 - † *Focus, the inner workings* 91
- †.IV *A CSA in India* 101

IV LOOKING FOR ORGANIC *in Bangalore* A raising awareness and many options available 109

- †.I *A Raising Awareness* 111
- †.II *Options available for those who wish to consume organic products in Bangalore* 115

CONCLUSION 120

BIBLIOGRAPHY 122



INTRODUCTION

« Did you know that every twelve hours, a farmer commits suicide in India? »

This sentence of journalist P. Sainath, Rural Affairs Editor at the Hindu, strikes at the core of one big issue India faces today: one of the largest agricultural countries in the world is losing trained farmers at an alarming rate.

At the same time, the country ranks first in the world class diabetic rates and witness an epidemic of coronary artery disease: the extremes of people starving and eating the wrong food and too much are very visible all over the country.

Can an alternative method to conventional agriculture, known as “Community Supported Agriculture” or CSA, implicate some cities’ inhabitants in the agriculture issue and improve the conditions of living of the farmers thanks to values like solidarity, and at the same time improve the diet habits of the shareholders?

After a short analysis of the Indian agriculture history to understand its cultural and political implications, the whys and wherefores of the assumed benefits of organic farming will be explored as well as its repercussion on consumers, farmers, and the environment.

Deeply intertwined with Indian traditions, can organic agriculture be a valid concept in a hungry world? The paper will then examine the conditions that are needed for a CSA system to function properly, and consider if these options exist in Bangalore, including behavioral patterns and emotional attitudes towards lifestyle.



PRACTICES BEFORE AND AFTER *the Green Revolution*

A SHORT OVERVIEW OF THE HISTORY OF AGRICULTURE IN INDIA

The objective of this chapter is to give an understanding of the cultural and traditional way of farming which is crucial to decide which approach to take towards a behaviour change.

1.I *Traditional Agriculture*

1.II *British Colonialism*

1.III *India's agricultural growth strategy after Independence*

1.IV *Present Situation*

1.V *A glance in the Future*



Warli Painting, traditional Indian art
Scene from a day in rural India
© Matsya Indian Crafts

1.1 Traditional Agriculture

In today's India, as in many other developing countries, the words "improved agriculture" and "progressive agriculture" have become synonymous with the spread of High Yielding Varieties of Crops grown with ever-increasing doses of chemical fertilisers and pesticides. Behind this idea the belief is, that traditional agriculture is "backward" and incapable of meeting the desired objectives of agricultural planning. Most educated Indians would call their traditional agriculture unscientific, primitive, and responsible for widespread hunger, malnutrition and poverty in India; but is this truly the case?

Vedic literature provides some of the earliest written records of agriculture in India: Rigveda hymns describe plowing, fallowing, irrigation, fruit and vegetable cultivation to name a few. Traditional farming systems appeared to be complex and advanced as they exhibited important elements of sustainability: for instance, they were well adapted to the particular environment, relied on local resources, were decentralised, and, overall, tend to conserve the natural resource base. The ancient texts refers to types of land, monsoon forecasts, manure, irrigation systems, seeds and sowing, pests and their management, horticulture, soil mixing practice, and more.

Land left unseeded after being ploughed and harrowed to regain fertility for a crop

There was an overall harmony of the traditional mixed farming system: traditionally men, animals, trees, and agricultural fields were inseparable and harmonious components of a single system. The villager looked after the trees on his fields and also contributed to the maintenance of the community grazing land. He looked after the animals he owned, and cultivated his own fields,

with or without hired labour or share croppers.

Certain trees provided fodder for the cattle, shade and fuel for the villagers. Others gave edible fruits medicines, gum, toothpaste, or a place to raise silkworms and bees. Fallen leaves were put to uses beneficial to the agricultural fields. Their soil and water conservation properties were beneficial for maintaining the fertility of agricultural fields, and ensuring an adequate supply of drinking water to the villagers. Cattle provided milk to the villagers and dung to fertilise the fields, while the poultry provided eggs and meat. Bullocks ploughed the fields. The fields produced food grains, pulses, oils, seeds, and vegetables for the villagers. The residues of those crops, of no direct use to man who could not eat them, were fed to the cattle. Poultry birds scavenged the wasted scattered grain. Many of these traditions are still alive in small villages today. The liberation of the economy in 1990/91 brought pesticides and lately Monsanto to the villages.

The Ecologist, Vol.13, No. 2/3, 1983

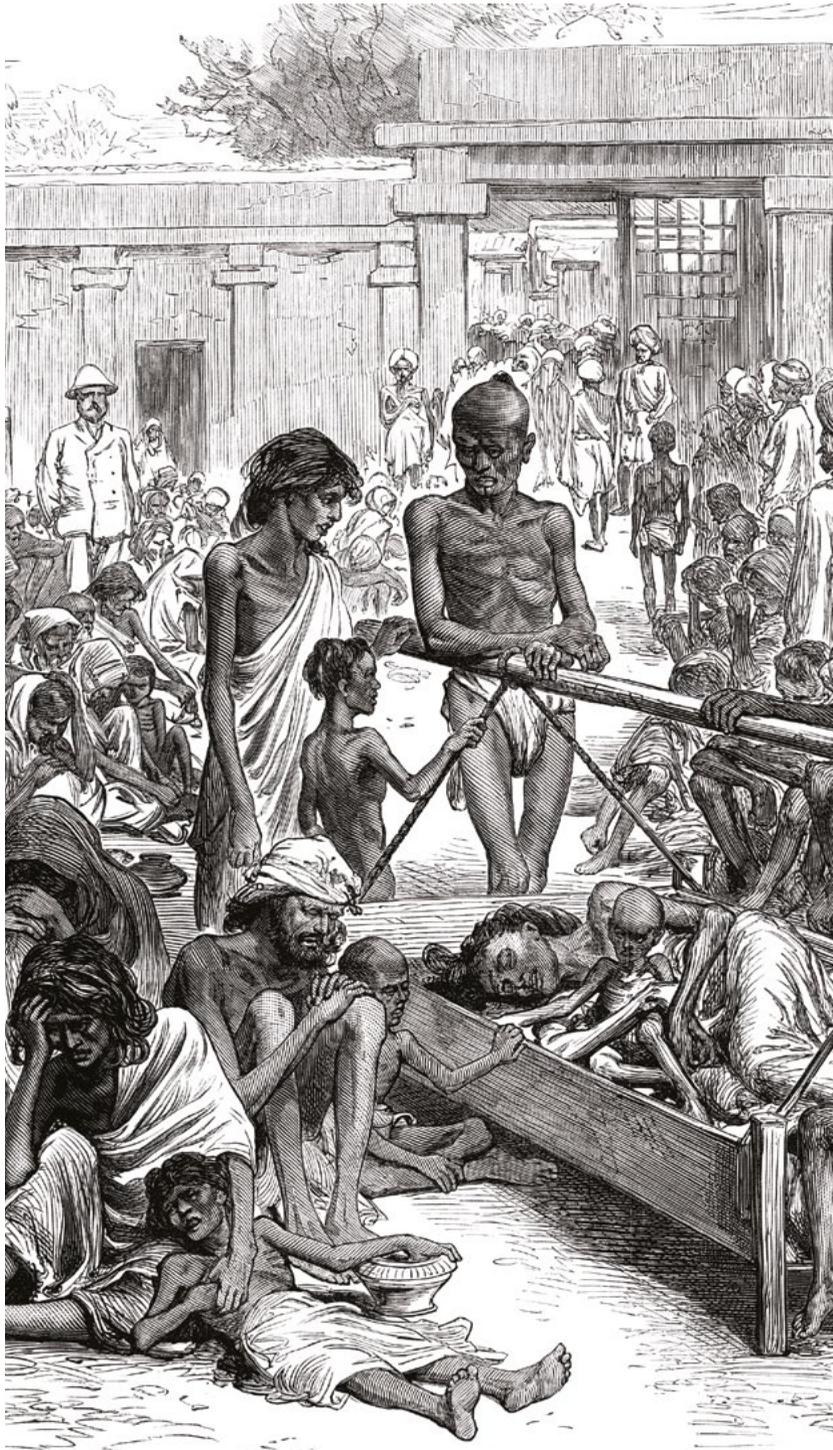
In the 17th and 18th centuries, British and European agronomists and scientists reported how flourishing and sophisticated agriculture was in India before the pre-British period. Several of the indigenous practices which were perfected centuries ago, such as the rotation of crops and the practice of drill husbandry, were relatively unknown in the 17th century in Europe, and are often cited as the major advances achieved during the 18th century “agricultural revolution” in Europe.

“

To take the ordinary acts of husbandry, nowhere would one find better instances of keeping land scrupulously clean from weeds, of ingenuity in device of water-raising appliances, of knowledge of soils and their capabilities as well as of the exact time to sow and to reap, as one would in Indian agriculture, and this not at its best along, but at its ordinary level.

Dr John Augustus Voelcker
Consulting Chemist to the Royal Agricultural Society
of England, 1889

”



Waiting for the famine relief in Bangalore,
20 October 1877
© the Illustrated London News

II *British Colonialism*

India, like all colonies, was drastically affected by the age of imperialism which both benefited and hindered the growth of the country economically, socially and culturally.

The Indian agriculture state of affairs of was fast getting transformed under the British rule, after the colonialists gained control over almost all of India in the early 19th century.

In the name of the Crown, British claimed every piece of property that was not in a private domain in the colonized territories. This gradually shifted the sense of ownership on those previously public resources, such as land and water bodies, by taxing citizen directly on their use of those resources: cultivators lost their earlier rights in land which was belonged to the community before. This led to completely uprooting and transforming of the social order of the indigenous agrarian community.

Due to indebtedness, land was passed into the propriety of non agriculturalist money lenders who did not have any interest in improving the agricultural state of India. Cultivators themselves lost interest to bring improvement in a land which they did not possess, or simply didn't have resources to invest in it.

In order to subtract substantial land revenue, efforts were made by the British to «improve » Indian agriculture during the 18th and the 19th centuries. Among few experimental large-scale farms and some

agricultural school, various kinds of plantation run by Europeans were set up.

The colonialists acclimatised exotic crops of commercial importance to Indian conditions, such as tea and an American variety of cotton, introducing massive monoculture to India, a form of intensive production which tend to support far fewer wild species than comparable areas under native forests.

How green is your tea? by Shankar Raman, Divya Mudappa

striking-women.org

Plantations also led to controversial conditions of labour, for example bonded labour; a form of labour in which a person is forced to repay a debt by working for low or no wages, with the money being used to pay of the debt. Also known as debt-bondage, this practise is still intricately embedded in India's socio-economic culture, mostly in rural area where the agricultural industry relies on contracted, often migrant laborers.

Bonded Labor in India, by Devin Finn

Still, hardly anything was known about Indian agriculture, but British administrators from around the middle of 19th century started declaring that Indian agriculture was unscientific, backward, primitive, empirical. At the same time, this was the period when the British and European agriculture started taking a more 'modern' and 'scientific' turn, symbolised by the employment of chemical fertilisers, newer mass-produced implementations, and the further shifting of the knowledge of agriculture from the peasantry to agricultural research institutes and colleges.

In his dispatch of April 9, 1870, Lord Mayo wrote:

“Of all the branches of Indian industry, agriculture, which constitutes the occupation of the great mass of people, is by far the most important. We believe it to be susceptible of almost indefinite improvement... It cannot be denied that Indian Agriculture is in a primitive and backward condition, and the Government has not done all it might have done... It is hardly too much to say that scientific knowledge of agriculture in India has at present no existence... We cannot doubt, that, when the light of science has been properly brought to bear upon Indian Agriculture, the results will be as great as they have been in Europe.”

Cited from M S Randhava, A History of Agriculture in India, Vol. III, Delhi 1983, p.177-8

The increasing demands of other countries for wheat, oil-seeds, and cotton, also have exercised an important influence upon the systems of Indian agriculture. In the past the farmer planted a crop which would provide grain for himself and his family, as well as straw for his cattle. Additionally, element of export has now entered into his calculations and has marked changes in the kinds and extent of the crops grown. The profits received as a result of this commercialisation did not find its way to the peasants who were producing the goods, but rather to the middle men who were tasked with selling the goods.

Thus, even if agriculture was the mainstay of Indian economy during this time, and that nearly eighty percent people adopted cultivation either as principal or as secondary occupation, the combination of several factors led to its decline and stagnation, leaving cultivators hopeless to the mercy of nature vagaries and greedy landlords.

News practices and lack of maintenance of older infrastructure works like the irrigation system dismissed the impact of indigenous traditional knowledge over the years. Land robbing, excessive taxes and large number of intermediaries led to low productivity and impoverishment of peasants and cultivators, whom scarcity of resources was not fulfilled by the Government, which was more likely to spend millions of rupees on the railways to protect and promote the British trade interests.

Lastly, repeated occurrence of natural calamities like floods, droughts and famines forced many peasants to give up on cultivation and led to famines, leaving India in an acute crisis.



Farmers spraying pesticide in their cotton field in Punjab
© A. Flachs, for National Geographic

I.III *India's agricultural growth strategy after independence*

At the time of independence in 1947, agricultural development became a key to a number of national goals, such as reducing rural poverty, ensuring food security for all the citizens, supplying agricultural raw materials for the textile industry and other industries, and expanding exports.

The central government played a progressively more important role on the agricultural front by providing overall leadership and coordination, as well as by providing a significant part of the financing for agricultural programs. Special programs were established to meet agricultural growth objectives in three distinct phases from the 1950's to the 1990's.

In the first phase, agricultural growth rested on removing basic socio economic constraints through land reform, change in the village power structure, reorganization of the rural poor into cooperatives, and better citizen participation in planning. The initial assumption was that changing the land tenure system by abolishing the Zamindar system - a method of revenue collecting and landholding developed during the Mughal and British colonial periods - would stimulate agricultural output.

*The Mughal Era
The British Empire in India, ch. 1*

Then came the Third Five-Year Plan, between 1961 and 1965. During the 1960's, India met important food shortages that convinced planners that raising agricultural output, especially food grains, was essential for political stability and independence from the foreign food aid. Self-sufficiency in food-grain production and development of an adequate buffer stock through procurement became clearly defined goals in the mid-1960s. Keeping in mind the variety of socio economic and agro climatic differences, the government adopted an area-specific approach,

and emphasized programs such as the Intensive Area Agricultural Programme and the Intensive Agricultural District Programme, that paved the way for the Green Revolution in India.

Known as one of the biggest political movements in the young democracy, the Green Revolution, promoted and developed during the 1970's, is the third phase to meet agricultural growth objectives in the young Republic of India. To achieve this intensive farming plan several measures were taken by the democratic government: quantitative expansion of farmland through claiming natural lands, double-cropping methods, genetically modified seed, and the introduction of fertilizers and pesticides to allow crops to grow in more than their natural seasons.

Rice harvesting in Tamil Nadu
© Lakesight, March 2012

The Green Revolution was successful in meeting the goals of self-sufficiency in food-grain production and adequate buffer stocks by the end of the 1970s. Production was more than 100 million tons in 1978 and 1979. Imports were negligible, and the year-end buffer stocks from 1976-79 averaged more than 17 million tons. After 1980 buffer stocks fell below 10 millions tons only once, in 1988.

The Green Revolution answered the call of world hunger. But the effects of this program are still controversial today. Despite its good intentions, it became one of the most unsuccessful development projects in history whose effects are still widespread.

From a positive perspective, the Green Revolution was a success in efficiently increasing the grain production, higher yields were harvested on existing cropland without expanding them, which would have endangered the forests and grasslands. New drainage systems, including leveling and irrigating, were constructed to meet the standards of intensive agriculture. The Green Revolution managed to raise the enthusiasm of the participating farmers, giving them an optimistic view of the future. Higher yields provided them more income to improve their quality of living





Monsanto's seed monopolies, the destruction of alternatives, the collection of super profits in the form of royalties, and the increasing vulnerability of monocultures has created a context for debt, suicides and agrarian distress which is driving the farmers' suicide epidemic in India, especially in the cotton belt.

The Seeds of Suicide: How Monsanto Destroys Farming,
by Vandana Shiva, Environmental
leader and theoretician
March 13, 2014



and infrastructures on their land.

On the other hand, the Green Revolution, developed by scientists, needed knowledgeable farmers. Many poor uneducated farmers did not have the skills to succeed. These scientists developed techniques in very controlled environments, without understanding the reality of village life in a developed country.

The Green Revolution helped the large landowner more than the small farmer. In India, almost half of the peasants own less than an acre or have no land at all. For them, the Green Revolution has not taken place. When they tried to get loans to purchase irrigation equipment, pesticides or fertilizers, they have been charged high rates of interest by middlemen that led many of them to lose their land. Increased mechanization of agriculture also took jobs away from poor agricultural laborers, and required fossil fuels burning (which contribute to global warming and pollution) not to mention petrochemical fertilizers.

High-yield crops are mostly genetically modified organisms that will generate sterile seeds every year, and are more prone to disease and pests. Adding that the seed varieties need to be changed every few year to keep ahead of diseases. they are quite expensive and make the farmer dependent on international firms like Monsanto.

High-yield seeds require massive use of fertilisers, pesticides, and irrigation, leading to soil and water contamination which threatens wildlife. By constantly re-planting crops without restoring soil health means more fertilizer is required over the years to maintain the production level at a sufficient rate. But after years of intensive farming, a loss in the productions of fruits, vegetables and pulses was bound to happen in India.

Many projects of the Green Revolution are then seen has a "flash in the pan", meaning they have not been able to maintain their initial success. Nonetheless, the Green Revolution contributed to food scarcity as staple food crops are being replaced by cash crops to be exported.



Group bringing attention to farmer suicide issue.
© Jan Satyagraha 2012

I.IV Present Situation

Today, despite ranking as the world's second largest producer of food, India's agriculture is still a failure in the sense that the country is home to the largest number of people ravaged by hunger and starvation on earth.

Unicef, 2011

Of India's 121 million agricultural holdings, 99 million are with small and marginal farmers, with a land share of just 44% and a farmer population share of 87%. With multiple cropping prevalent, such farmers account for 70% of all vegetables and 52 per cent% of cereal output. According to National Sample Survey Office data, 33% of all farm households have less than 0.4 hectares of land and about 50% of agricultural households are indebted.

An Uncertain Hobbesian Life
The Hindu - 13/01/2015

The World Bank wrote in 2008 in "India Country Overview":

"Current agricultural practices are neither economically nor environmentally sustainable and India's yields for many agricultural commodities are low. Poorly maintained irrigation systems and almost universal lack of good extension services are among the factors responsible. Farmers' access to markets is hampered by poor roads, rudimentary market infrastructure, and excessive regulation."

Despite numerous schemes and laws to help the farmers, very few of the intended beneficiaries feel the impact of these, bringing into focus the disconnect between the ploughing and the ruling classes.

“Who is there to hand hold the farmer to self-sustainability? asks Bharat Krishak Samaj, chairman of Farmers’ Forum. Due to their marginality, 3/4th of the farmers are left out from government schemes, even though the country has Rs 8 lakh crore credit for farmers. The truth is if farmers are not consulted, the states cannot plan effectively for their development.”

Congress spokesperson Salman Aneez Soz prefer to pass the blame to the state governments which are the implementation agencies of the government policies.

“There is a big chunk of people in the middle who may be left out of the Central schemes. But then the Central schemes are implemented by the state governments. I also agree that we need to communicate much more effectively about our flagship schemes.”



A food secure and peaceful India is in the hands of her small farmers. Without small farmers, India will be a food insecure, violent and undemocratic society.

Dr Vandana Shiva
Environmental leader and theoretician
2007





Farmer using Surface Treadle Pump
© IDE

I.V A Glance in the Future

India's Prime Minister Narendra Modi promised that if he was elected, he would "recharge an apathetic economy and nationalize the Gujarat model of development". His party listed as it's main qualification for the country's top job. Indeed, during his 13 years governing of Gujarat, Narendra Modi restored the economy of the State, and is now India's fastest growing state recording the best country's agricultural performance by far. "Lab to Land" is one of his mantras for agriculture, - taking scientific research to successful interventions.

Similarly, a number of private innovative ventures are bringing in agricultural revolution in the country.

Companies are working on scientific farming, for example Hosachiguru, which procures large parcels of unused arable land in Andhra Pradesh, one of the driest regions in India, and turns it into sandalwood farms with short-term complementary crops like pomegranate and drumstick.

hosachiguru.com

"Our farming approach, employing rain water harvesting and other techniques, have actually enhanced the soil quality and water table levels in the region. By employing local farmers, we have created sustainable livelihoods for nearly 100 people" Srinath, one of the founders, says.

Other companies work on providing farm equipments: Kamal Kisan designs, manufactures, sources, and distributes a series of simple farm equipment specifically targeted for small farmers in order to reduce labor dependence, farming production costs, and dependency on fuel. Their technology is simple,

adaptable, and affordable. It is marketed through service centers in rural communities where farmers can subscribe to Kamal Kisan's mechanized agricultural services at a reasonable price point.

Their main product is a rice transplanter which "will revolutionize the way small farmers manage their rice paddy fields". Karan Patel, designer for Kamal Kisan explains:

"While most rice transplanters on the market today are exorbitantly expensive, they are also incredibly large and heavy, making transport a challenge for hilly terrains, and negotiating small plots of land near-impossible. They are also heavily dependent on costly fuel, and as they are manufactured abroad, service and parts are challenging, if not impossible to attain.

Our rice transplanter addresses all of these issues by being small and compact for efficiency and maneuverability. It can be easily adapted into current agricultural practices, therefore not requiring development of special skills or methods. It doesn't require fuel because it's hand cranked and its simple mechanism avoid a dependence on post sales services."

Kamal Kishan's rice planter
© Karan Patel



Briefly:

17TH AND 18TH CENTURIES

British and European agronomists and scientists reported how flourishing and sophisticated agriculture was in India. Several of the indigenous practices perfected centuries ago were often cited as the major advances achieved during the 18th century "agricultural revolution" in Europe.

19TH CENTURY, BRITISH COLONIALISM

Due to indebtedness, land was passed into the propriety of non agriculturalist money lenders. Cultivators lost interest to bring improvement in a land which they did not possess.

Plantations led to controversial conditions of labour like bonded labour, still intricately embedded in India's socio-economic culture.

20TH CENTURY, THE GREEN REVOLUTION

Helped the large landowner more than the small farmer. Projects have not been able to maintain their initial success. Contributed to food scarcity in replacing staple food crops by cash crops.

TODAY

Despite numerous schemes and laws to help the farmers, very few of the intended beneficiaries feel the impact of these, bringing into focus the disconnect between the ploughing and the ruling classes.

IN THE FUTURE

A number of private innovative ventures are bringing in a new agricultural revolution in the country.



ORGANIC AGRICULTURE

and its benefits

ORGANIC AGRICULTURE, AN "EVERYBODY WINS" SCHEME?

This chapter will explore the whys and wherefores of the assumed benefits of organic farming and food consumption.

1.1 *A Definition*

1.2 *Health Benefits*

 *For the Consumers*

 *For the Farmers*

 *Environmental Benefits*

1.3 *Can Organic Farming feed the World and bring more Social Justice?*

1.4 *Organic Farming in Karnataka*



*A Special Mechanism for Making
Biodynamic Slurry in Jayaram
organic farm in Coorg
© WorldCowGirl*

1.1 *A Definition*

Organic farming is rather difficult to map in India, as there is no central agency that collects and compiles this information. Moreover, many poor farmers did not have the money to convert to the Green Revolution. A significant part of the organic production is thus “by default”, and sold as a lower price than conventional farming products in villages markets. On the opposite, the price of organic products displayed in big cities like Bangalore is between 12-25% higher than their conventional counterpart.

Organic farming is based on the similar principles underlying Indian traditional agriculture: it is the cultivation of plants and rearing of animals in natural ways. It requires the use of biological materials, avoiding synthetic substances to maintain soil fertility and ecological balance, thus minimizing pollution and wastage. It relies on ecologically balanced agricultural principles like crop rotation, green manure, organic waste, biological pest control, mineral and rock additives. Unlike modern and conventional agricultural methods, organic farming does not use various petrochemical fertilizers and pesticides, which have to be natural.

The International Federation of Organic Agriculture Movements (IFOAM) which was established in 1972 for organic farming organizations wrote:

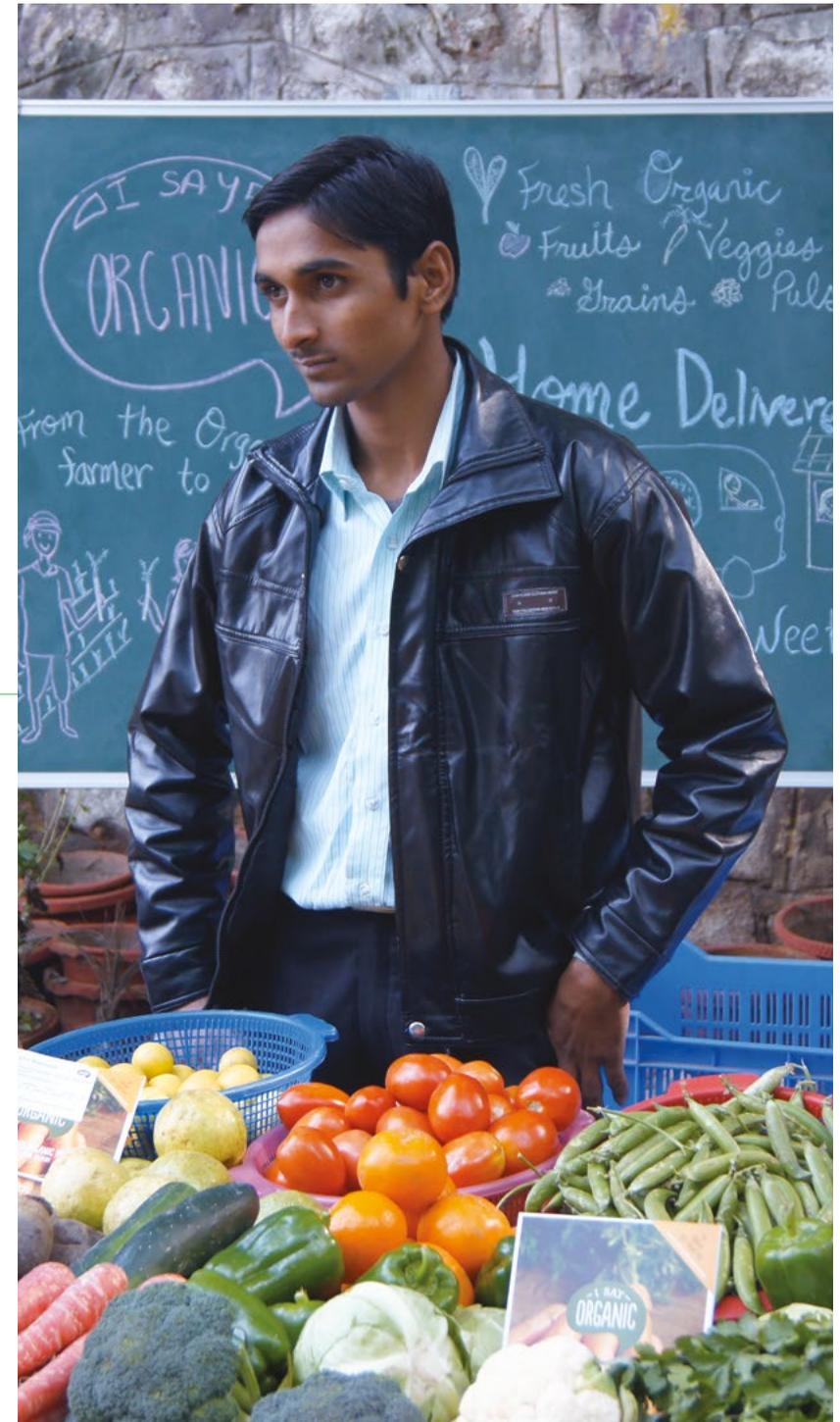
“Organic agriculture is a production system that sustains the health of soils, ecosystems, and people. It relies on ecological processes, biodiversity and cycles adapted to local conditions, rather than the use of inputs with adverse effects. Organic agriculture combines tradition, innovation and science to benefit the shared environment

and promote fair relationships and a good quality of life for all involved...” Thus, adopting organic agriculture today does not mean going back to the pre-industrial yields of our great-grand parents.

A growing number of people are making organic lifestyle choice. Vigilant about the quality of the produce they are eating, they expect organic products to provide health and environmental benefits. The sweeping public opinion that organic food is healthier than conventional food is so strong, it is the main reason for about 30% of the growth in the organic food industry over the past 6 years.

But is it really worth the bother? Is it just a trend, an idea whose time will pass?
Is organic a concept valid in a hungry world?

*Innovative enterprise in Delhi selling affordable organic fruits and vegetables by connecting organic farmers directly to the market
© I Say Organic*





*The Yoga House, Mumbai, serves to its customers organic and balanced meals only
© Meera Ashish*

1.11 Health Benefits

For the consumers

Organic farming is rather difficult to map in India, as there is no central agency that collects and compiles this information. Moreover, many poor farmers did not have the money to convert to the Green Revolution. A significant part of the organic production is thus “by default”, and sold at a lower price than conventional farming products in village markets. On the opposite, the price of organic products displayed in big cities like Bangalore is between 12-25% higher than their conventional counterpart.

Organic industry groups are sometimes accused of spreading fear of non-organic products in order to increase their market shares and profit.

infohub.ifoam.org

The IFOAM counter-arguments that:

“Tactics to scare the public away from organic foods come directly from individuals and companies supporting and profiting from conventional food sales.

“Communication about the benefits of organic food is not done so much by the companies involved in organic business.

“It is largely left to word-of-mouth, media coverage, and the promotional efforts of organic advocates who do not have financial interests in the sector.

“There are many rational reasons to reject conventional food and it is only fair that these are starting to be shared

with and known by the public.

Much of the support of organic food as a healthier alternative comes from environmental groups who don't want pesticides and fertilizers to do any more damage to the environment. The producers of organic food are also very strong contributors to the idea that organic food is superior to other types. But still, those health benefits are more based on perception than real facts.

The website Organic Facts, a strong proponent of organic food, believes in putting across the most accurate facts to its visitors, in order to explain which aspects of organic food are actually beneficial for health and which ones have been misrepresented in recent years. It wrote:

“There is a small amount of scientific evidence to show that organic food is better in quality than conventional food. Scientific research conducted thus far on various organic food items has not been able to give strong evidence about the superiority of organic food over non-organic food.”

The main difference between organic and conventional food products are of course the chemicals involved during production and processing which have a devastating effect on the environment, while the residues of these chemicals in food products have dubious effects on human health.

Then, there is no denying that some benefits can be enjoyed in organic food:

Antioxidant capacity

A number of studies show that antioxidants tend to have more impact when they come from organic food and recent research suggests that choosing organic food can lead to increased intake of nutritionally desirable antioxidants and reduced exposure to toxic heavy metals.

No chemical pesticides and fertilizers

Pesticides are required to keep crops from being attacked by bugs and chemical fertilizers are used to grow food at an industrial rhythm. But they are composed of

organic.insightd.net

helpguide.org

powerful chemicals harmful for our bodies, which have been linked to a number of developmental problems, including autism and attention deficit hyperactivity disorder. That is why many people choose to go organic to make sure their children will grow up healthy and unaffected by the toxins during their developmental years.

organicfacts.net

helpguide.org

Healthy fatty acid in animal products

Increased amount of time grazing on grass boosts the amount of conjugated linoleic acid in the animal products. It is known to improve cardiovascular protection and it is found in higher quantities in breast milk and meat of animals raised free range or cage-free, animal welfare being an important aspect of producing organic milk, organic meat, organic poultry and organic fish. Organic bred animals are also less fatty.

organicfacts.net

GMO free food

Although there are some good things about genetically modified food, organic food advocates point to the lack of concrete details about the long-term effects. Indeed, genetic modification is still in its early stages, so its implication on human health is not really understood. Animal testing showed that genetically modified food led to a major reduction in immune system strength, an increase in birth mortality as well as some sexual dysfunctions, cancers, and sensitivity to allergens.

helpguide.org

No Antibiotic in Animal Products

Non-organic food sources, particularly livestock and feed houses, feed antibiotics to their animals. This extra dose of antibiotics may weaken our immune system and eventually keep it from defending himself. No antibiotics are used in the processes of organic food growers and dairy farmers.

sciencedirect.com

Absence of non-natural ingredients

Organic food products must not contain any artificial ingredients whereas processed food is high in saturated fats, sugar and sodium, flavor enhancers, chemical colorants, etc., shown to be major contributors to diabetes, high blood pressure, heart disease and obesity.



Women carrying cow manure
to their field, Coorg
© A. Bès de Berc

For the farmers

Organic farming has been introduced as a consumer and environmental friendly agricultural system, but little is known about the effects on workers' health. What health issues do farmers in both traditional and organic farming experience?

Pesticides used in conventional farming are one of the great double-edged swords of technology. Since the Green Revolution, modern pesticides have helped farming to be far more productive. But since they are poison, they pose a health risk to humans, other animals, and the environment.

In 2005, a study of nearly 19,000 farmers led by epidemiologist Freya Kamel of the National Institute of Environmental Health Sciences highlighted genetic damages and immunological alterations for those working with pesticides. Unlike previous studies that have emphasized the importance of recent use, Freya Kamel looked at the whole picture. Her team looked at a host of symptoms, ranging from headache and fatigue to memory loss and motor problems. The more pesticides the farmers used in their lives, the greater the risk - even if they hadn't used them recently.

sciencelinks.com

What about all these workers working half naked in the so-called developing countries? Over the last decades, agricultural pesticides have become a common household item in rural areas of the developing world. More and more acute pesticide poisoning is happening, already reported as an important cause of morbidity and mortality worldwide by the World Health Organization in 1990.

[The Slow Poisoning of India](#)
[Top Documentary films, 2012](#)

This problem is significant in India, where nearly 90,000 tons of pesticides are spread in its fields each year to respond to the pressure of the global market, making it one of the largest users in the world.

[Kavitha Kurugganti of the Alliance for Sustainable Holistic Agriculture](#)

The blame doesn't lie with farmers alone but also with the policy-makers. 67 pesticides that are banned in other countries are still used in India. Among them, the notorious DDT, banned since the 70's in the west after the publication of Rachel Carson's book *Silent Spring* and broad public outcry over its impacts on wildlife and people.

Inappropriate pesticide storage practice and inadequate protective measures frequently causes accidental poisoning among farmers - not to mention ingesting pesticides is a common way for farmer to commit suicide in India.

[ncbi.nlm.nih.gov](#)

In 2014, Indian scientists explored the pattern of pesticide use among farmers in West Bengal to identify the lacunae in their knowledge and awareness level on risks and hazards of pesticides use. They found out that 48.8% of the farmers used to store pesticides in cowshed and 29.6% in storeroom. During spraying, 29.8% farmers experienced headache, 26% nausea, and 9.8% burning sensation in the eyes, 9.2% cough and 2% muscle cramps. The common practice regarding personal protective measures was covering nose and mouth with cloth combined with a bath after spraying. Scientists conclude that in this situation, educational and training interventions on pesticide handling and safety precautions are urgently needed.

These products are not only harming the workers: in Tamil Nadu and Kerala, you can find villages where almost all the children suffer from malformations or are mentally challenged, due to the aerial spraying of pesticides in the cashew plantations. In 2013, India faced a pesticide poisoning tragedy in a school in Bihar that killed 23 children. Authorities blamed high levels of organophosphorus - a common agricultural pesticide - found in the free lunches. After this event, many children in India refused to eat their lunches - which the country provides to more than 100 million children free of charge



People exaggerate the bad effects of chemical farming to gain publicity. Non-pesticide users have worse health. If done in limit, pesticides cause no health problems. The productivity will highly suffer if we stop using pesticides and the farmers will commit suicide.

Rajju Shroff
managing director and chairman of India's biggest
pesticides company, United Phosphorous,
2008



46%

alpha-cypermethrin

25.6%

methyl parathion

16.4%

imidacloprid

7.8%

dichlorvos

4.2%

phorate

Most common pesticides used in India agriculture,
www.ncbi.nlm.nih.gov

to tackle malnutrition.

takepart.com

Lal Singh, a Punjabi farmer and member of Harkishanpura village Panchayat reports:

“Earlier, our village was prosperous with good crops, but when pest attacked our cotton crops, we started spraying up to 35 times. Ultimately, the crops were destroyed and we incurred huge losses.”

Journalist Sanjay Panday published the 9th of January 2015 an article about the “Cancer Train”, which has gained its name from a sudden surge in cancer cases in India’s northwest Punjab state that many blame on growing pollution and pesticides use – and an ineffective response by authorities.

“Poor patients from across Punjab flock to catch the 9:30pm train to head to the desert city of Bikaner for specialist treatment, arriving early morning after a seven-hour journey. On this occasion, the train’s sole reserved compartment, with a capacity of 72, is occupied by 30 cancer patients.”

Since organic agriculture does not utilize these toxic chemicals, it eliminates this enormous health hazard to workers, their families, and their communities.

A number of farmers are now switching from chemical to organic farming. They see that is the only way of escaping a spiraling whirlpool of debt created by the high cost of pesticides and dramatic health issues. Unfortunately, the pressure of the market is still an impediment for most Indian farmers.

In some villages, like Mulyar in Kerala, [the Panchayat](#) banned the use and sale of pesticides. They state that since they stop using pesticides in their cashew crops, surprisingly their yield increased and they quickly felt the benefits on their health. He adds bitterly that the only beneficiaries of the spraying have been the corporation and the pesticides companies. Over 600 farmers in Nashik District in Maharashtra have switch to organic farming, realizing it was the only way out to breed life into a degraded land. Organic farming goes back to

[Self local governing body](#)

[The Slow Poisoning of India Top Documentary films, 2012](#)

traditional Indian knowledge, where plant extracts and animal waste are used in their field, and pest traps to catch light are used during the night. They teach each other to make bio pesticides with the use of plant leaves like papaya, custard and neem.



DESIGN IDEA

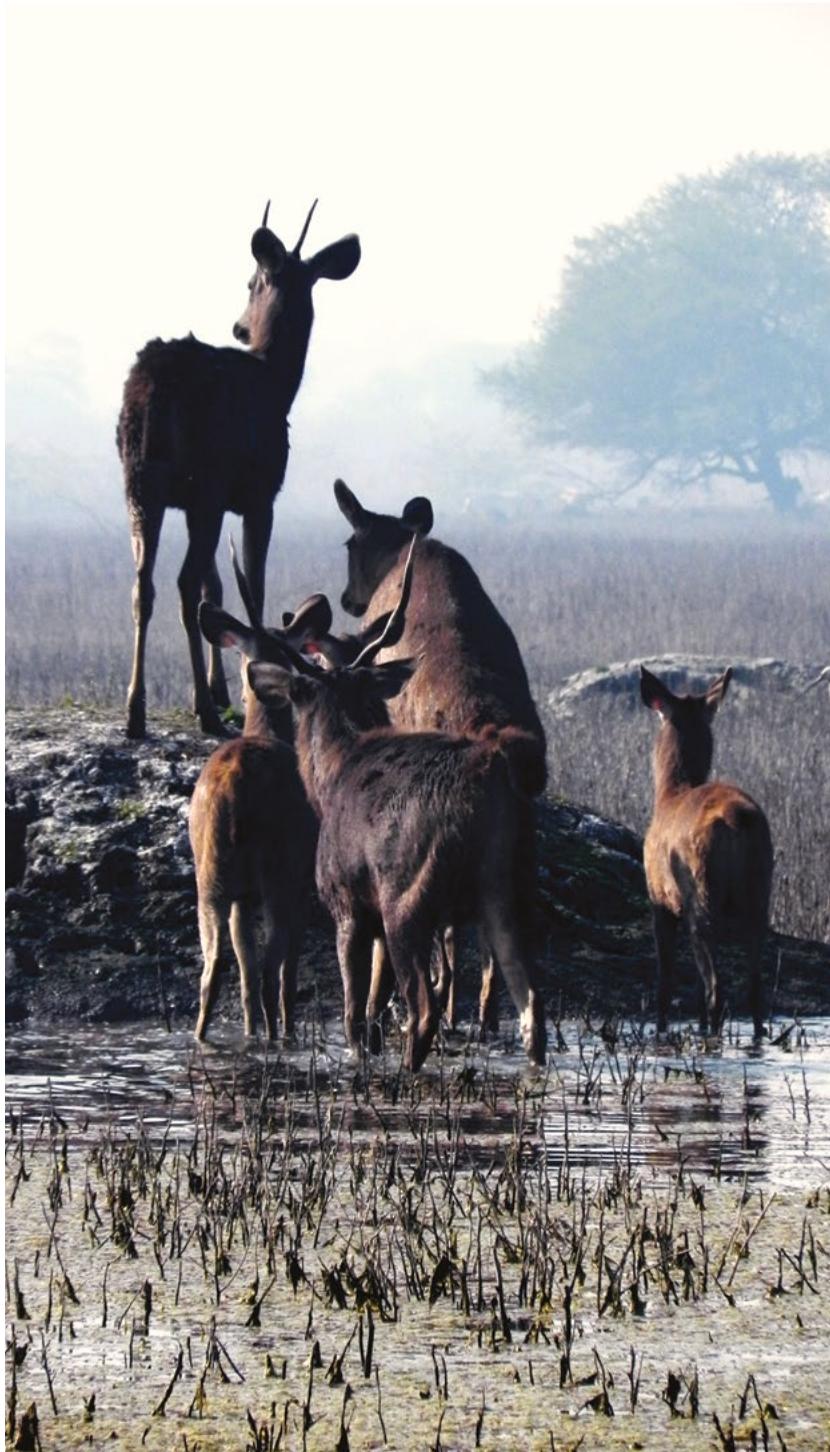
The Government should provide clear and understandable documentation about the dangers of chemicals fertilizers and pesticides, if not for the environment, at least for the human health. This can be done through radio, which is a media highly used by farmers, or on printed support like brochure or posters displayed in the panchayat premises. As many farmers are illiterate, ethnographic research should be led to ensure the production of an understandable visual language to support written explications. Content should be adapted to suit the cultural specificity of each community.



*1kg neem
1kg round mogra flower
1L cow's urine
10L water*

Traditional recipe of pest control for
one acre of land by Mr. Reddy





Keoladeo Ghana National Park
Bharatpur
© Wikipedia

Environmental Benefits

One concern of conventional arguments against organic agriculture is that there is not enough scientific evidence for organic food production to be better for the environment. While the negative effects of chemical pesticides and artificial fertilizers are proven to be very harmful for the environment, the fact that organic farming strictly forbids the use of all synthetic chemicals is enough to reject this allegation.

Organic agriculture aims sustainability over the long term thanks to a proactive approach, with no risk of soil and underground water contamination.

Crop rotations, intercropping, symbiotic associations, cover crops, organic manure and minimum tillage helps building healthy soil, encouraging soil fauna and flora while controlling soil erosion. Natural farming methods help conserve biodiversity, encouraging a natural balance within the ecosystem and avoiding domination of particular species over the others. Local wildlife is preserved thanks to field margins and hedges, while mixed planting naturally controls pests.

A criticism of organic farming is that distribution is mainly local, and as a result of this, less energy is used for transportation, therefore fighting against global warming. This can mostly be verified in the western countries themselves.

fao.org

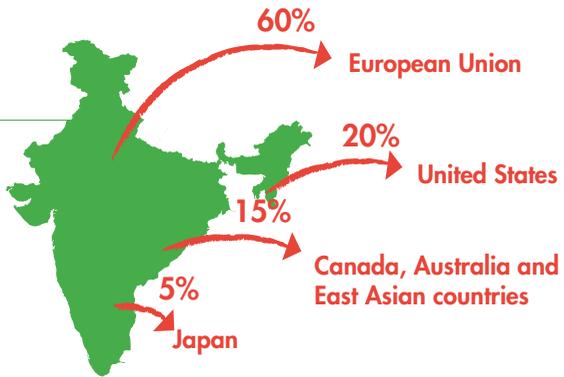
Indeed, there is an important exportation of organic products from the developing world to the west. The local market is thus not the target market for the organic farmers in India, as the country exports 85% of its organic produce. Prices in the country are then highly influenced by the lucrative global market, rather than costly material.

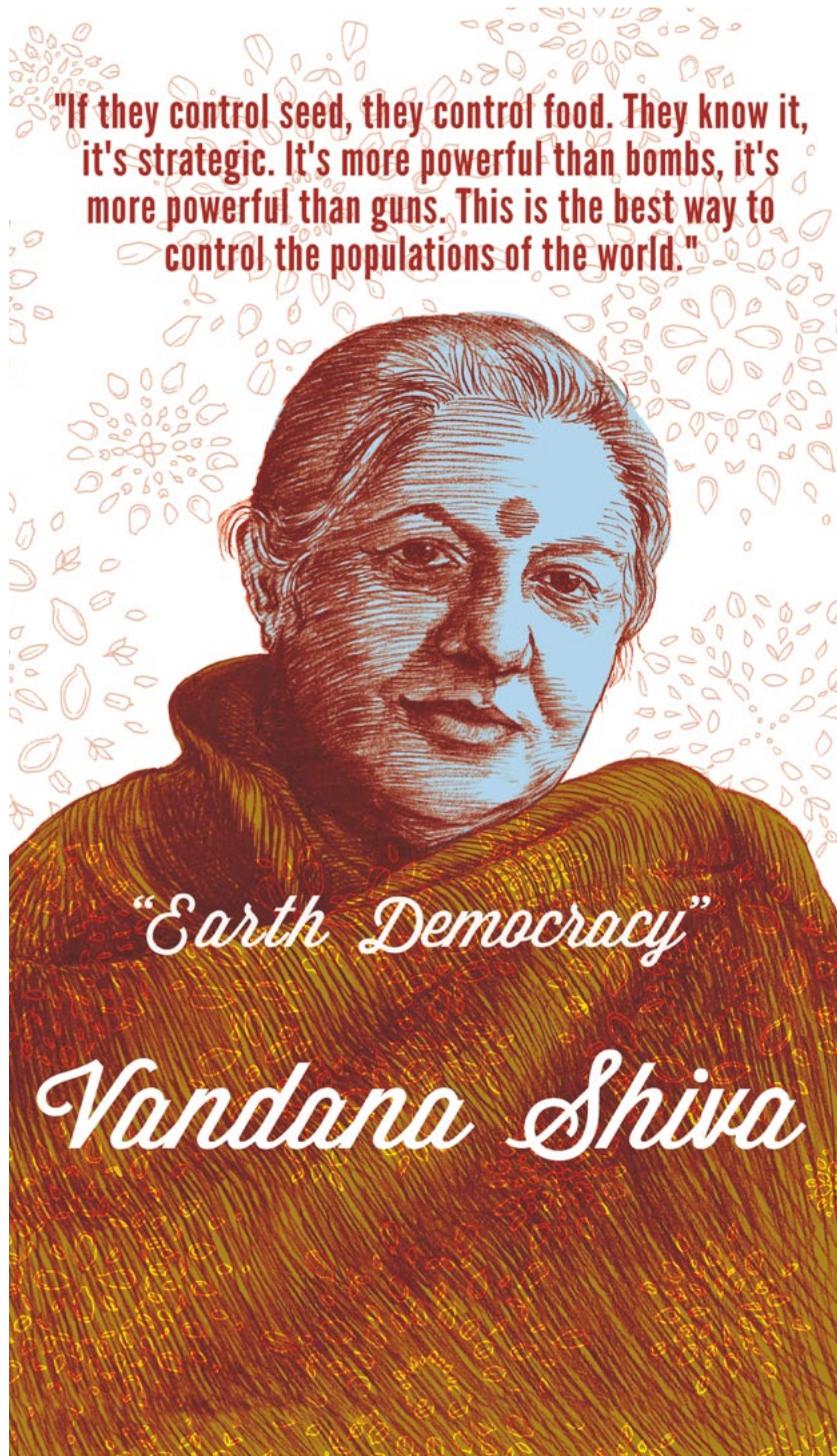


DESIGN IDEA

Raise awareness about the environmental benefits of traditional/organic agriculture using spiritual and traditional beliefs to achieve a strong emotional attention of the public.

India's organic exportations
fao.org





Poster of Vandana Shiva
© University of Winnipeg

II.III *Can organic feed the world and bring more social justice?*

Today, we experiment a food production surplus with simultaneous famine on the worldwide scale. The answer to widespread hunger lies more in political and institutional changes than technical innovation in agriculture. Global food production is more than enough to feed the global population; the problem is getting food to the people who need it. One may wonder if organic farming yields would be productive enough to feed the world's growing population - otherwise, why would the so-called Green Revolution have happened?

In 2013, The United Nation Commission on Trade and Development published a review titled « Wake up before it's too Late », including contributions from more than 60 experts around the world. The key point of this review was that small-scale organic farming was the only way to feed the world.

unctad.org

One has to ask himself if intensive labor is worth conserving lands across the globe to sustain food production in the long term and ease our current environmental issues. For example, organic agriculture can reverse the process of desertification, which strikes six million ha of productive land each year around the world, and then safeguard the world's production potential. Studies have also shown that in northern countries, organic farms can be almost as productive as conventional farms, and that in developing countries; they are often even more productive.

Forschungsinstitut für biologischen
Landbau, Switzerland

Study by Jules Pretty and Rachael Hine
from the University of Essex

Currently, public support and research for organic agriculture is very limited. According to the IFOAM, there is a considerable potential to increase the performance of organic agriculture with appropriate allocation of resource for research and extension. In Northern countries, most conventional farmers can only survive because they get subsidies.

For example, the European Union invests 40% of its budget in the Common Agricultural Policy, which implements a system of agricultural subsidies (policy criticized for its costs, its environmental, and humanitarian unsustainable impacts). In 2003, the European Union support for Organic Agriculture was 1.3% on a 50 billion budget, when it represented 3.9% of the total European Union agricultural area.

touteurope.eu

In the US, most organic farmers get barely any subsidies, while the 10% of chemical-intensive corporate farms get 80% of the nation's \$20 billion in crops subsidies every year. Production-oriented subsidies thus artificially lower the price of conventional food, while the overall cost to society of producing food organically is actually lower than the cost of conventional production. Many farmers associations point out the current practice of northern, developed countries dumping agricultural products on markets in the southern, developing countries at artificially low rates enabled by agricultural subsidies, which is a major cause of starvation among rural populations in these southern countries.

infohub.ifoam.org

India's former Prime Minister Charan Singh, himself an agricultural economist, said that small farms are more productive than large farms:

“Agriculture being a life process, in actual practice, under given conditions, yields per acre decline as the size of farm increases. [These] results are well nigh universal: output per acre of investments is higher on small farms than on large farms. Thus, if a crowded, capital scarce country like India has a choice between a single 100-acre farm and forty 2.5-acre farms, the capital cost to the national economy will be less if the country chooses the small farms.”

“

Delusional hippies, hysterical moms and self-righteous organic farmers are the only people who think organic farming can feed the world. The greatest catastrophe that the human race could face this century is not global warming but a global conversion to ‘organic farming’ - an estimated 2 billion people would perish.

”

Cambridge chemist John Emsley

“As farms increase in size, they replace labor with fossil fuels for farm machinery, and toxic chemicals for the caring work of farmers.” Vandana Shiva says.

One of the reasons Harper writes in 2009 that organic, fair, and ethical trade markets are particularly suited for small producers and offer high prices is because organic agriculture methods are often more labor intensive than in conventional agriculture. For instance, compost and manure application, anti soil erosion landscaping and weeding are labor intensive.

In developing countries, these practices are generally performed by hand or with limited technologies, which imply the availability of an adequate workforce. Labor in these countries tends to be cheaper than chemical inputs; therefore, a switch to organic farming in developing countries is typically a profitable option.

A labor-intensive system helps generate both employment and income opportunities for rural populations and help control massive emigration towards urban centers. Most organic agriculture standards contain specific social standards to ensure that issues such as child labor and worker and human rights are given due attention. Concerned about people and nature, organic agriculture is a holistic production system that does not separate people from their environment. It builds on relationships that ensure fairness, equity, respect, and justice between the different actors of the food chain.

Farmer weeding a maize field in Bihar
© Flickr Cimmyt





Portrait of Mr Reddy
© M. Javelot

II.IV Organic farming in Karnataka

Different types of soil and agro-climatic zones compose the state of Karnataka, from the Western Ghats to coastal plains and plateau. The annual rainfall of 1130mm and the moderate temperature provide ideal conditions to grow a large variety of crops throughout the year. Known for its excellence in horticultural crops and animal husbandry, Karnataka is thus called the “cafeteria of crops”.

Interested in saving its farmland, in 2000, the Government of Karnataka gave 100 hectares of area in each district and taluk to be converted to organic farming. For each district the state government selected Non Government Organizations and gave them the responsibility to work with farmers to make their farms organic. The government of Karnataka did fifty percent of the funding for organic farming. All these efforts were directed towards conserving natural resources, using indigenous knowledge and improving status of farmers through organic farming.

A subdivision of a revenue district

Many farmers of the State are pioneers in organic agriculture and have developed different systems of cultivation through indigenous knowledge base. They have developed their own methods of using organic wastes and developed holistic pest control agents to control pests and diseases.

Mr. Narayan Reddy, from Sorahunase village in the Doddaballapur Taluk near Bangalore is one of the most influential and well-known organic farmers in the country. It took him 8 years to convert from 100% chemical farming to organic farming. The early days were very tough, but finally the tide turned. After four

years, just using organic fertilizers retained original yield levels. The net returns increased, since the costs of inputs diminished drastically. His net income is now higher than the average farmer in his area. The obstacle Mr. Reddy found to alternative agriculture was the huge propaganda from the media, extension workers, and politicians pushing chemical inputs. At least three times a day, he says he could hear the radio playing advertisement for pesticides and fertilizers, disguised with popular music. In the nearby village of Varthur, there are numerous billboards and entire sides of building painted with images of prosperous farmers holding bags of chemical fertilizers.

Mr. Reddy estimates that because of previous soil depletion, yields on a farm will go down for at least two years during the transition from chemical to organic. Farmers may need to purchase organic fertilizer. Without subsidies or loans, it is impossible for many farmers to even consider organic farming. His view is that, given the reality of the small and marginal farmers of India, it may be practical to switch to organic in a phased manner over a period of 5 to 6 years, without the assistance of any subsidies or incentives.

Organic Farmers of Karnataka
ofai.org

Mr. Reddy's model farm is visited by a large number of farmers and student, and more and more farmers in his area now adopt some of his ecological practices. Very concerned about his farmer community, he has started a small training center called "Parashara Jaivika Krishi Gurukula" to instill knowledge and practical experience in chemical free and external input free farming.

He declares:

"We need such centers in every district of our country to save the soil, environment and provide food security with toxic free nutrition. At the end, I want to remind the administration, our agriculture scientists and mostly my farming community to grow more of micro-milletts which are resistant to drought, pests and need less plant nutrients and inputs. Unless we promote and practice family farming and green farming, the future of all of us could end in misery and distress."

“

Organic farming took me closer to religion. I feel less selfish because I always look at the interdependence of things.

Narayan Reddy
Organic farmer

”

In 2008, a 23-member mission was set up by the State Government to promote organic farming, the Karnataka State Organic Farming Mission.

Mr. Reddy reported to the Hindu in 2009:

“I meet nearly 1,000 farmers, a majority of them organic farmers, in a month during my extensive travels to villages. But I could see that none of the farmers had received any benefits from this mission though it is working for more than a year.”

He alleged that not many people who were in these committees were farmers.

“Some of them are contractors. What is more painful is that a large number of them are just political followers of the rural party who have nothing to do with farming.”

thehindu.com

Once again, Government policies failed to be implemented, despite the great ideas and plans displayed in the Karnataka State Policy on Organic Farming in 2004.

raitamitra.kar.nic.in

A study was led in 2013 by GKVK to document the difficulties of farmers practicing organic farming in Karnataka and their achievement motivation. The findings show that almost the half of the organic farmers have a high level of achievement motivation, and that one third had a medium level of achievement motivation.

The commitment in their style of farming highlights that organic farming is a style of living, integrated with philosophical and spiritual beliefs as well.

The major difficulties expressed by the farmers were:

“Non effective and costly bio-pesticides

“Scarcity of farmyard manure and other organic manure compared to chemical fertilizers

“Lack of market information and market access

“Laborious process

“Insufficient training, lack of information, non-availability of skilled laborers.

“Lack of minimum support price for the organic products



DESIGN IDEA

Proper documentation of the efforts made by organic farmers in India is lacking, and there is not much literature available to farmers about such practices. Ready-made packaging should be created to answer the farmers' fear and doubts about alternative farming methods. Organic practice should be well documented and illustrated by the success of local farmers themselves, to encourage the transition from conventional to organic farming and show the sustainability of the model. Encouraging traditional crops and traditional food habits could increase the food security, and organic practice could be implemented relying on the Indian tradition of self-help group, very common in rural areas.

Briefly:

HEALTH OF CONSUMERS

No chemicals, no antibiotics nor hormones which have dubious effects on human health.

HEALTH OF FARMERS

Over use and lack of knowledge regarding the use of pesticide is an important cause of morbidity and mortality worldwide, especially in developing countries. Blame also lies with policy-makers.

Organic agriculture eliminates enormous health hazard to workers.

ENVIRONMENTAL BENEFITS

Organic agriculture aims sustainability over the long term thanks to a proactive approach, with no risk of soil and underground water contamination.

FEEDING THE WORLD

Considerable potential to increase the performance of organic agriculture with appropriate allocation of resource for research and extension.

EMPLOYMENT

A labor-intensive system helps generate both employment and income opportunities for rural populations.

SOCIAL JUSTICE

Most organic agriculture standards contain specific social standards to ensure that issues such as child labor and worker and human rights are given due attention.

PHILOSOPHY

The commitment of organic Indian farmers highlights that more than a style of farming, organic is a style of living, integrated with philosophical and spiritual beliefs as well.

POLICIES

Fail to be implemented, in both national and regional levels.

SUCCESS

Is possible despite a difficult transition period, and benefits are numerous.



CAN CSA *be sustainable in India ?*

COMMUNITY SUPPORTED AGRICULTURE

This chapter will explore what conditions are necessary for this system to work in India.

III.I *A Definition*

III.II *What is CSA ?*

 *A short History*

 *Values*

 *Pros and Cons*

III.III *Organized and Unorganized fresh food supply in India*

 *A definition*

 *Focus, the inner workings*

III.IV *A CSA in India*

Community SUPPORTED AGRICULTURE

HOW BEING A MEMBER OF LOCAL ROOTS CSA IMPACTS FARMERS, THE CITY, AND THE ENVIRONMENT

YOUR LOCAL ROOTS CSA VEGETABLE SHARE

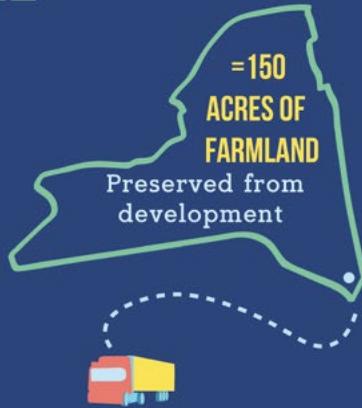
= 40 FARMWORKERS

WORKING FULL-TIME AT PEAK SEASON



= 150 ACRES OF FARMLAND

Preserved from development



= 1,433 FEWER FOOD MILES TRAVELED

In the conventional food system, food travels on average 1500 miles from farm to plate. With Local Roots NYC, your food travels no more than 250 miles from NYC.

= 12 LESS TRIPS TO THE SUPERMARKET AND 12 MORE TRIPS TO A SMALL BUSINESS



= 60 PLASTIC BAGS DIVERTED FROM LANDFILLS

WHEN YOU BRING YOUR OWN BAGS TO THE CSA



NOTES:
1. "Local & Regional Food Systems," SUSTAINABLETABLE.ORG
2. With an average of 5 items in the vegetable share, we estimate that a conventional grocery store would bag each item separately, 12 trips x 5 bags = 60.



@LOCALROOTSNYC
LOCALROOTSNYC.ORG

© Local Roots NYC

III.1 A Definition

If you come from a locavore or pro organic background, you have surely heard about Community Supported Agriculture. According to the CSA model, a farmer offers a certain number of "shares" to the public. The share consists of a box of vegetables or other farm products like fruits, meat, eggs, and dairy. Interested consumers subscribe to CSA to get a box, bag, or basket of seasonal produce each week throughout the farming season.

CSA takes different names all the way around the world: Teikei in Japan, AMAP in France, Reciproco in Portugal, ASC in Québec, GASAP in Belgium, Landwirtschaftsgemeinschaftshof in Germany.

In many different localities, farmers and consumers respond to the same global pressures, each culture adapting CSA to their local conditions, needs and tastes. Names are different but the essence is the same. This alternative, locally based economic model of agriculture and food distribution is based on strong values: community, health, ecology and learning. Active citizens make a commitment to local farms to share the risks and the bounty of ecological farming, grasping the importance of locality, solidarity, fair trade, social and economic justice.

While this movement meets a growing enthusiasm in developed countries of the North, it is barely developed in India despite ideal configurations of its farming system, as shown in the precedent chapter. Why is it so?



© Suzie's CSA

III.11 *What is a CSA?*

A short History

The story tells that in Japan, in the mid 1960's, concerned with the increasing use of pesticides, loss of farmland, and importation of more and more food, a group of women approached a local farm family with an idea to draw a contract to get fresh fruits and vegetables, and that is how teikei - Japanese CSA- was born. Literally, Teikei means "partnership" but philosophically, it means "food with the farmer's face on it".

At the same time in Europe (Germany, Austria, Switzerland), community experiments based on the same concept began to flourish. Similar projects then began to appear in the area of New York, United States, in 1985 under the name of CSA "Community Supported Agriculture", as a response to the decline of the number of farmers and the difficulty for low-income families to access to food of quality. CSA initiatives then grew and spread to Canada before crossing the Atlantic again to bloom in United Kingdom, France, Portugal, and Italy...

In many areas, small farming activity, in opposition to industrial farming, is maintained thanks to CSA initiatives, while more small farms are disappearing and farmers are giving up because of economic issues.

Today, the CSA phenomenon continues to spread, giving a relevant response to topical issues around climate and earth preservation:

“CSA is developing in North European countries, Hungary, Ghana, Australia, New Zealand...”

“In Japan, on four household, one is involved in a Teikei (already 16 millions people in 1993)

en.wikipedia.org

“In US and Canada, 1400 CSA are working, serving over 100 000 families

The boxes filled with farm-fresh food, either picked up or delivered straight to your door, have become increasingly popular across the past ten years.

An exemple of share in a CSA
© Unknow



Values

What is Community Supported Agriculture about?

CSA is about Community:

Frequently formed by farmers, a number of CSA have been formed by consumers. It creates a community of like-minded people, offers opportunities for them to meet in a different way, and address important community issues.

CSA members are interested in more than vegetables; they like to know they are working with a professional grower who shares their environmental and social concerns, and are interested in their fellow shareholders. CSAs are about strengthening a sense of community. Most CSAs have a newsletter to let people know what's going on in the garden, share recipes, and announce things of common interest or concern and social events. Some CSA initiatives make sure they do not exclude low-income families through its pricing policies - elevated cost being an impediment to organic food consumption. For example, several CSAs are organized as part of regional food banks to get rid of their surplus. Consumers give support to a farmer whose work is difficult, dependent on Mother Nature's vagaries.

CSA is about Ecology:

One of the guidelines of CSA is organic farming or permaculture. The soil has to be respected just as any living being would be. Traditional methods of farming like the use of manure or bio pesticide shall be adopted

instead of potentially harmful pesticides. It is in the interest of the consumer that farmers are supported so they can grow the highest quality food while preserving the environmental quality and soil health at its best.

CSA is about Locality:

if you consume locally, you avoid the pollution from shipping and importation. In many countries, north and south, a few decades of free trade have driven family-scale farms to the point of desperation. CSA rehabilitate small-scale farms and give you an opportunity to consume in a responsible way.

CSA is about Seasons:

Globalization has broken the connection between people and pace of nature. In a French supermarket for example, you can find any fruit or vegetable you want all year long even if it's not the season thanks to importation from distant and exotic countries. CSA offers the opportunity for you to reconnect with rhythms of nature by eating produce when it is in season. People who join CSAs find a meaningful way to reunite with the Earth and a community and discover a kind of spiritual nourishment that they have been missing.

However, eating seasonal products is not very easy when it's so easy for you to go to the nearest supermarket and grab any food at your convenience. To help one another, some shareholders take the initiative to share recipes and menus; some CSA even publish their own recipe book. Seasonal celebrations occur such as planting parties, raspberry festivals, potato-digging potlucks, fall harvest festivals... All these social gathering reinforce the bounds between people and make them more conscious of each other and the community, in a world where capitalism made the ego king.

CSA is about Health:

A long series of food scandals – illnesses from food-borne pathogens, milk and other products contaminated with GMOs and chemical pollutants – have led to a crisis of confidence in imported foods from industrial-scale farms. CSA offers a return to wholeness, health and economic viability. Respected soil will give healthy food.

When no herbicides, pesticides, or artificial fertilizers are used, groundwater pollution and toxic residues on food are avoided. CSA gives consumers the chance to choose how their food is grown. Eating locally grown, freshly harvested food is the basis of a healthy diet and is recommended by health-care professionals.

CSA is about Learning:

Whether it acts as training centers for young people who wish to learn the skills of farming and management of CSA operations or re-educate us to have a balanced diet and live with the pace of nature, you always gain knowledge from CSA. A number of CSAs host local school groups for nature study or art classes in the garden. Others encourage shareholders to pick enough food to preserve for the winter months. This allows consumers to rediscover the household arts of drying, canning, or freezing foods.



CSA, all about learning
© Our Little Farm



Pros and Cons

The Pros of joining a CSA for shareholders:

You are supporting small, local farming, which is a gratifying feeling.

It is prepaid: you spend less time shopping and you have no need to wonder what to buy.

You have access to the freshest, most local produce, which is the most nutritious way to eat.

Eating seasonally is also the most nutritious way to eat. You can learn about new fruits and vegetables.

You will increase the quantity of fruits and vegetables that you eat.

You can teach your children about fresh, real food and bring them to the farm.

It engages you in a social activity with like-minded people.

The Cons of joining a CSA for shareholders:

Nature's vagaries can damage crops and therefore your share—weather, pests, etc. This is the risk you take in joining a CSA.

You may get a large quantity of a type of produce that you don't care for, or produce you don't have enough use of.

You may not use up all your produce before it goes bad.

Organic produce is more expensive.

A scheduled pick-up is a constraint in your timetable.

You only get seasonal products, which can be boring.



The Pros of joining a CSA for farmers:

Early seasonal income.

Exclusive market.

No middlemen.

Chores can be done during discovery days.

Social link with the customers, consumer awareness, social recognition.

The Cons of joining a CSA for farmers:

New chores (selling, organizing events...).

Scheduled pick up.

Needs a formation.

Lack of information.

Lack of internet access.



India supermarket
© Unknow

III.III Organized and Unorganized fresh food supply in India

A Definition

In India, the food retail industry – the sale of goods in small quantities directly to the end user - is divided into organized and unorganized sector. Unorganized, or traditional retailing, refers to the traditional format of low-cost retailing like local kirana shops, owner manned general stores, paan/beedi shops, convenience stores, hand cart and pavement vendors...Organized retailing refers to modern-format, large-scale and organized stores such as supermarkets/grocery chains and hypermarkets which are corporatized and apply modern-management techniques.

Corporate Catalyst India
"A report on Indian Retail Industry"
2006

The liberalization of the consumer goods industry initiated in the mid-80 and accelerated through the 90's resulted in significant growth of organized food retail. Still, it barely represents 10% of the whole retail industry.

Today, there is an important debate concerning the implications of the expansion of organized retail in India. People wonder if it is going to have positive or negative impacts on the economy compared to the traditional unorganized form of retailing, which is part of the community life.

Indeed, unorganized retail format is a support to a large chunk of the population, providing direct employment to 500,000 individuals in 2014. Unorganized retailing will have to be rethought in the coming years in order to survive and content the customer's need for variety.

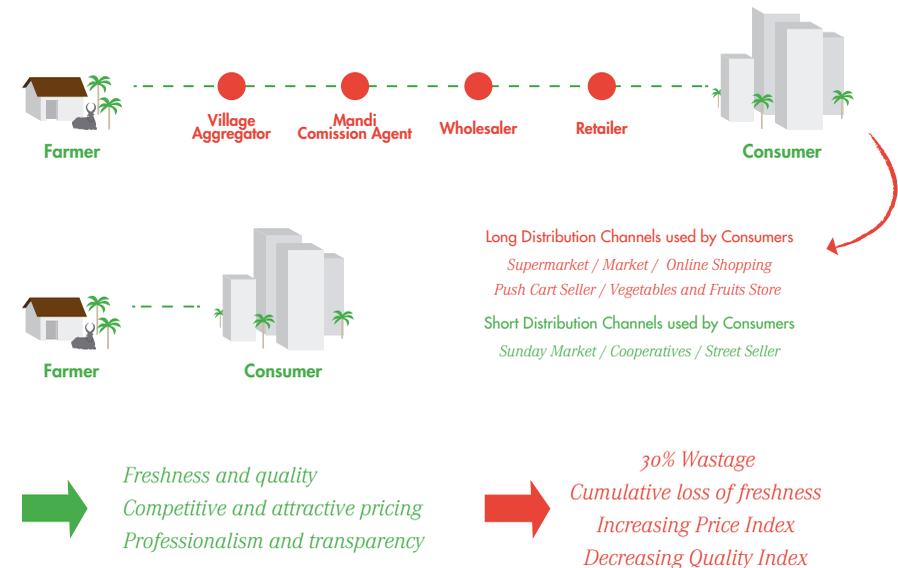


An emerging trend in food retail is the virtual format, where customers can order online through web portals and benefit of home delivery, especially for large sized retail chains that have websites. They are competing with kirana stores that provide quick home delivery and credit to neighborhood consumers.

Bengaluru is the city that consumes the most vegetables in Karnataka, home to almost a fifth of the state's population, wide of 850+ sq. km in area.

Where can the Bangalorean consumer get his/her vegetables, where do they come from, and how are they sold? One can spot a vegetable retailer on almost every road, ranging from supermarkets to corner shops to cart sellers.

Vegetable supply to the city is managed through multiple channels—HOPCOMS, APMC and other informal markets supply vegetable through farmers' networks from various cities. But recent changes in the government rules ease direct selling of vegetables from farmers to retailers or consumers.



Unorganized retail
 © Camille Morin, 2015



© Flora Brochier, 2014

Focus, the inner workings

**While doing your fresh fruits and vegetables groceries in Bangalore, who can you meet?
Stories collected from Rashmi Patil, journalist.**

From farmer to bulk market

Sreenivas Reddy is from Nalavanki Hobli in Srinivasapura Taluk. He owns ten acres of land where he grows 40 varieties of vegetables. He raises cattle like sheep, goats, cows and country chickens to cut down on fertilizer expenses. His farm produces around two tons of vegetables in a month and he solds his products in the markets of Malleswaram, BTM layout and Sadashivnagar. Vegetables like carrot, beetroot, beans and bitter gourd generate good income. Due to the lack of a cold storage facility, the produce has to be sold within twenty hours. He says he never face the problem of middlemen, except the toll fee of the two-way transportation which is Rs 80.

Direct sale from farmers

Rangamma sells vegetables in Malleswaram 13th cross. She lives near Nelamangala where she owns an acre of land. She reaches Malleswaram by train with her seasonal farm produce, including carrots, radishes and tomatoes. She sits among a group of similar farmers, sells her product, and goes back again by train. She prefers to be a hawker rather than sitting at the BBMP markets in Malleswaram. The price of the vegetables varies from market to market; freshness however, is guaranteed.

Story of a pushcart seller

Deepa Mohan Valli is a 45-year-old woman who sells vegetables on her cart in Ulsoor. Two to three times a week, she takes a bus from Cox Town where she lives, and makes her way to City Market at about 1.30 pm.

With a budget of Rs 4,000 on each visit, she buys vegetables based on the prices. If the prices are up, she buys about two kilos each of assorted vegetables; if they are down, she picks up about five kilos each. She then flags down an auto to Ulsoor and unloads about 50 kilos of vegetables on to her cart.

Her cart is then open for business from 3 pm onwards, until 9 pm. In the mornings, from around 8 am, she goes 'rounding', pushing her cart (which her brother Velayutham claims weighs 150 kilos when full) from street to street in the Ulsoor area, going from house to house to sell the vegetables. Once she has managed to sell the entire stock, she makes her way to the market once again.

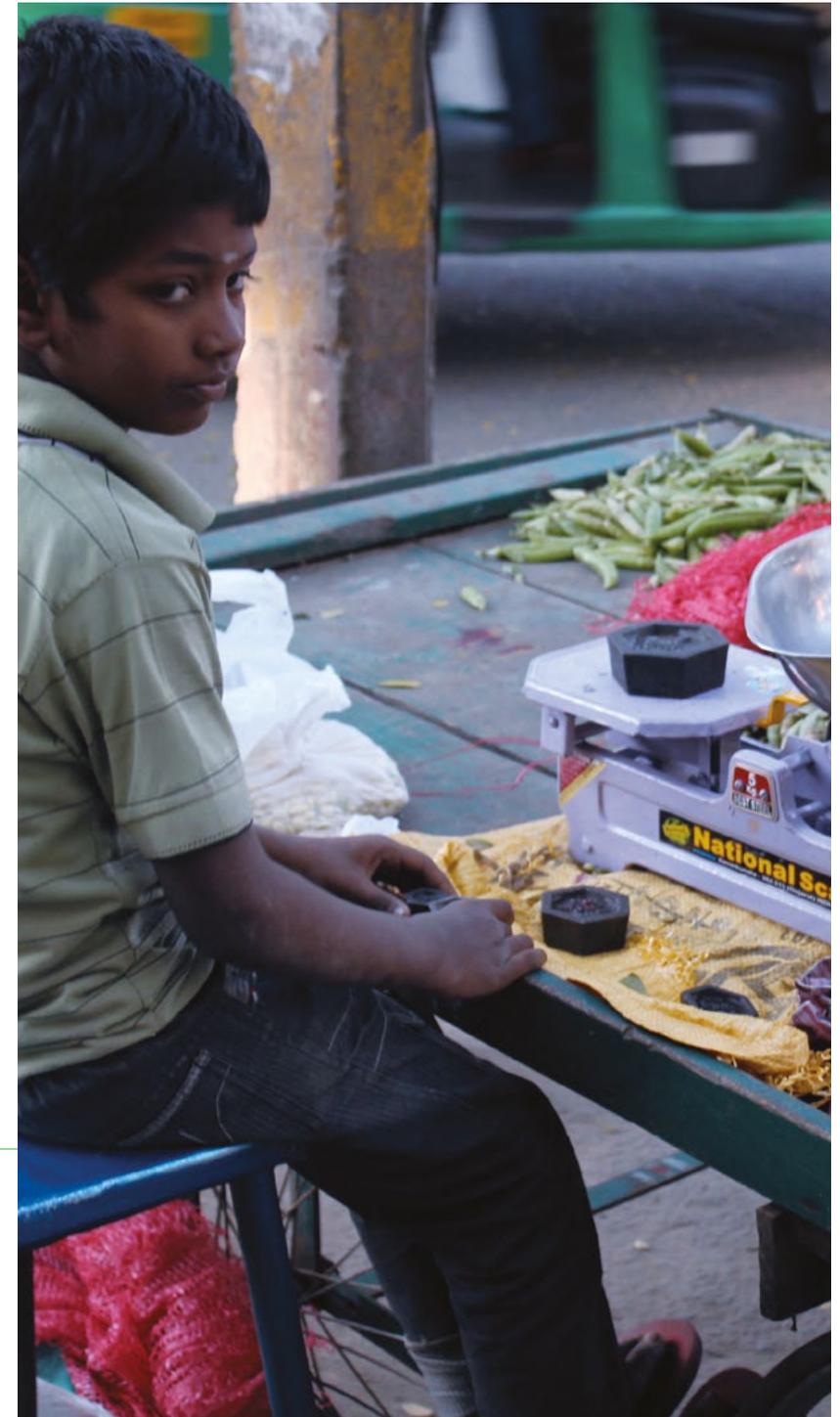
This has been Valli's life for the past ten years. Valli makes a profit of Rs 500 to 600 on each cartload. On the day after she has bought the vegetables and the next, she can demand a good price. On the second day however, when the vegetables lose their freshness, she has to reduce prices. When the vegetables start to go bad, she says that there are poor people who will buy them from her. She adds:

"I do not waste any of the vegetables. I sell the old vegetables at a low price even if it means that I incur a loss."

Valli is one of the three vegetables vendors catering to the residents of St Johns Road and Tank Road in Ulsoor. And like Valli, there are thousands of vendors selling vegetables across Bangalore.

Organic produce in Namdharis' Fresh supermarkets

Companies like Namdharis state that they own land where they grow vegetables. Ram Reddy, the Unit Manager at the Namdharis in R T Nagar, says, "The





© Camille Morin, 2015



© Camille Morin, 2015



company grows vegetables in its own land using the methods of organic farming. When tested, the vegetables hardly have any pesticide residue on it. Some exotic vegetables are grown specially in Ooty.” He says the company also has 200 acres of land in Bidadi. »
Namdhari’s Farms are located in different agro-climatic zones that enable them to produce most vegetables all round the year. Standards of Good Agriculture Practices (GAP) are strictly followed at production level.

Vegetables in others supermarkets

Stores like Reliance Fresh, Food World, Nilgiris or More get some of their stock of vegetables from local cooperatives like HOPCOMS, RMC or APMC yard. These stores sometimes buy their produce directly from farmers in Devanahalli, Chickballapur and Kolar.

© Flora Brochier, 2014

Santhies, local small vegetable markets

Local small vegetable markets, also known as Shanties, are organized once a week in various places on the city outskirts, from 6.30am to 7pm or more. They provide produce to homemakers, hotels and restaurants, street sellers and shop owners. The sellers are mostly villagers but there are also middlemen.

“Santhe, 80-years-old, sells tomatoes grown in her backyard and free from pesticides and chemicals. She sells them for Rs 15 per kg, while the HOPCOMS rate of tomatoes is Rs 27 for a kg. Her sister, who is also her neighbor, grows pumpkin. These are small in size when compared to the ones sold in the market. She sells a whole pumpkin weighing 1.5 kg at Rs 20, while HOPCOMS sells a kilogram for Rs 15. The two sisters bring their produce in small quantities and set up their stall at 8am on the Santhe day. They leave once their stock is sold out.”

“Padma, seller at Bannerghatta Road Santhe, leaves her home in Anekal at 6.30am and arrives at the Santhe with sacks of vegetables by 8am. “After 6.30pm, if there are any vegetables left, my husband takes it to KR Market to sell them, and returns the next day.” The same cycle repeats every week.”

“Basavaraj, middleman and seller at the Bannerghatta Road Santhe, buys vegetables from the villagers in

Chandapura, Anekal and surrounding places and sells them at the Santhe. He claims to be sharing profits with the growers directly and returning the unsold vegetables to them. Elderly farmers who cannot sit in Santhe to sell vegetables are his source.”

While price and quality are an advantage of the Shanties, cleanliness and hygiene are the issues to be addressed, but BBMP isn't very supportive of unconventional markets. Chairperson of BBMP Standing Committee Gouramma says:

“Santhes are becoming a menace. They occupy BBMP land free of cost, make brisk business and leave the place without cleaning up. There should be fines for the littering and a nominal fee should be collected from sellers.”

But she does not want to regularize them.

DESIGN IDEA

Design mobile and modular solutions to provide the Shantes seller a proper place to litter, as well as a service to collect and separate the waste once they leave. The green waste can be used by the city to enrich the soil of its decorative plantations or send out to farms in the outskirts of Bangalore.

Biogas digester can be installed in the main markets of Bangalore to handle the massive of organic/green waste also.

© Camille Morin, 2015





View of an onion field in
Mr Adarsh organic farm
© Adarsh Singh

III.IV *ACSA in India*

As part of my on-ground research, I interviewed Mr. Adarsh who runs the first Organic Certified CSA farm in Delhi NCR region. With 15 Hectares, the farm is located at Village Dhaula, Sohna in Gurgaon District of Haryana. Interviewing him allowed me to better understand how CSA functions in the Indian context.

Mr. Adarsh has been into organic farming from more than 10 years, he is growing organic fruits, vegetables & herbs at this farm with the help of few local organic farmers. He has received his Post Graduate Diploma in Organic Agriculture Management and has attended several courses in Permaculture, Bio-Dynamics, [SAN](#) Rainforest Alliance, Bio-Pesticides & Bio-Fertilizers Production, and Organic & Natural Farming. He has been contributing to the organic agriculture movement for long time and is also member of International Competence Centre for Organic Agriculture and International Federation for Organic Agriculture Movements Asia.

[Sustainable Agriculture Network](#)

[iccoa.org](#)

In a first step, Mr. Adarsh focused on production and was selling his produce to organic stores only, for direct marketing is a specialized work which requires time and a consumer care system. As he was facing few problems like lack of funds, helping hands and a needed market, his permaculture Guru, Mr. Rakesh Rootsman Rak suggest him to go for the CSA model. Mr. Adarsh is now convinced that CSA is one of the best social and economic models for organic farming.

It took him five months to start his CSA, from the promotion of the model to the first baskets delivery.

In the early days, he used to deliver most of the CSA baskets himself to meet consumers and set the routes. Now, one of his cousin and a co-villager are helping with the logistic and deliveries. Members had joined in a phased manner but some of them were already buying Adarsh products in the market.

He is now promoting the CSA in the Gurgaon Organic Farmers Market and on social networks like Facebook.

Adarsh products at the Farmers Market in Gurgaon, Delhi
© Adarsh Singh



In his CSA system, members can join anytime if the arm shares are available. Initially, he started with very low priced quarter and half-year farm share but it was not viable. He raised the CSA membership from Rs. 15,000 annual to Rs. 30,000 annual, for 10 kg of organic vegetables per week.

He reports that because people are used to have his products for so cheap, they are finding it difficult to give advance membership. They are also not motivated to pick their own basket, so they have to deliver at their doorstep.

If he can increase his prices, he will consider offering his shareholders flexibility in the choice of variety and quantities of vegetable they prefer, and discounts for

some permaculture/organic workshop/training or even discounts at the Farmers Market itself to encourage them to invest in organic.



One of the workshop conducted in the organic farm
© Adarsh Singh

Most of his CSA members are from the upper middle class, well educated, and health conscious people who were already buying organic vegetables. They are mostly females who want their families to eat organic.

He was positively surprised that almost 80% of his shareholders came through personal recommendations of the initial 10% he has known for some time. He describes half of his CSA members very adaptive to varieties and attentive to his problems. He is happy to get support from people and see them realize how important it is for society, a behavior he qualifies as unusual in a country like India.

For someone who has been into community building and social movements, Mr. Adarsh does more than just selling his products to customers. He says CSA members

are like family for him: he personally knows them and their habits, and feels blessed that they also consider him and his farm very important and close to their heart, following the “Know your food-know your farmer” movement.

Mr. Adarsh’s main problem is to ensure the right mix of varieties throughout the year, which is very difficult from one single farm. He is then planning to have another organic farm in the Himalayas to ensure ample varieties throughout the year in weather extremes.

Adarsh products at the Farmers Market in Gurgaon, Delhi
© Adarsh Singh



There have been few other CSA initiatives in India; some of them have stopped due to difficulties.

‘Pune (Maharashtra): GORUS Organic Farming Association, started in 2008

“

CSA can bring people closer to each other, live in the real world, eat real food, connect to their roots, help each other, and eat safe and nutritious food. It can bring some social values among society like sharing rather than possessing. Respect skills, traditional knowledge and work of every section of society and not only white color class.

Mr Adarsh
Organic farmer and owner of a CSA in Delhi

”

‘Mumbai (Maharashtra): Mumbai Organic Farmers and Consumers Association, started in 2009

‘Hyderabad (Andhra Pradesh): Sahaja Aharam Organic Consumers and Producers Cooperative, 2009

According to Mr. Adarsh, there is in Kolkata a CSA where a lady only grows seasonal and native vegetables and also persuades members to pick their basket, but they have a small project and only few members.

He thinks if one wants to promote CSA in a big way, he has to consider members convenience at least in initial months.

Mr. Moorthy, 59 years old, single, former advertiser now doing a little consulting and from a middle class in the service sector family background, is one of Mr. Adarsh's consumer. He read about CSA on Facebook, and when a friend of him told him it was really beneficial, he decided to try it out for a year.

He has been shareholder of the CSA for about ten months now and is planning to continue, happy to get organic vegetables and fruits at a reasonable cost which seems difficult in Delhi, and despite the little variety of the basket due to seasonal products, which ask him lot of creativity to create dishes.

He thinks CSA can create a greater social bonding. He explains that since the shareholders of the CSA are getting the same vegetables every week, they start exchanging recipes. This has for effect to widen their cuisine and introduce a lot of regional dishes in their home.

Briefly:

CSA VALUES

CSA is about community, ecology, locality, seasons, health and learning. It helps maintain small and marginal farming activity, imply the consumer in farming issues. More than getting vegetables, it is a commitment.

FRESH FOOD RETAIL IN INDIA

Unorganized retail support a large chunk of the population. It has to rethink itself in order to survive and content the customer need for variety.

CSA IN INDIA

Can successfully be promoted in Farmers Market or social networks. Ideologic commitment of the shareholders, but no volunteering.

Difficulty for consumers of giving an advance membership. Members convenience has to be considered in the initial months.

Customers prefer home delivery than pick-up. It creates a greater social bounding, and cultural exchange from home to home.



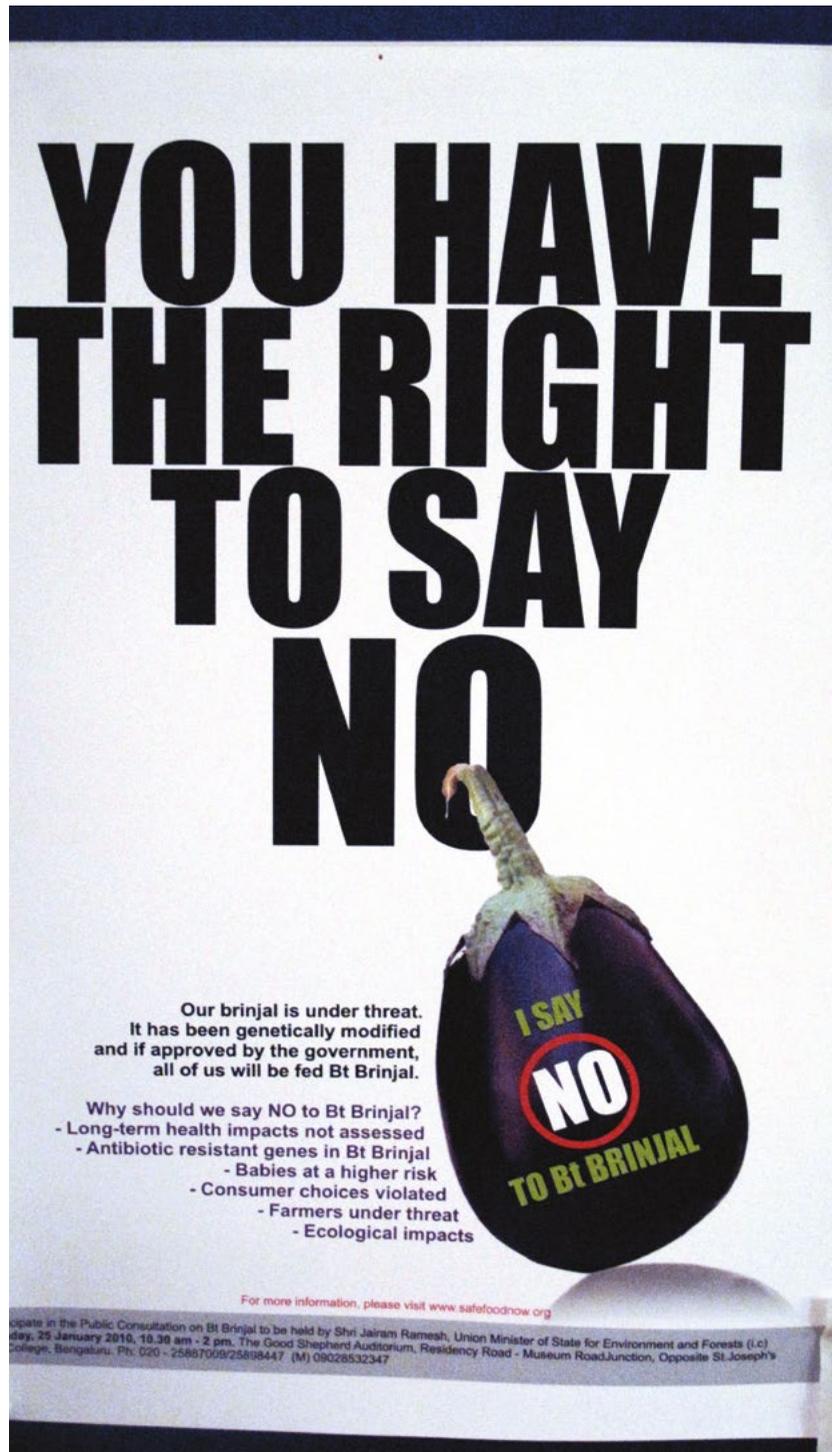
LOOKING FOR ORGANIC *in Bangalore*

A RAISING AWARENESS AND MANY OPTIONS AVAILABLE

This chapter will explore the motivation of the Bangaloreans towards organic initiatives.

IV.I A Raising Awareness

IV.II Options available for those who wish to consume organic products in Bangalore



Poster displayed in the Green Path,
spearhead of the protest
against Bt Brinjal,
© World Cow Girl

IV.1 A Raising Awareness

In a growing context of economic prosperity, more and more people have access to the external world thanks to education and media popularization. People's awareness to organics in India has increased very rapidly in the last years thanks to NGO work and the media exposing the ill effects of chemical farming.

One example is [Satyameva Jayate](#), a highly popular TV show presented by Aamir Khan that highlights social issues prevalent in India and discusses possible solutions. In 2008 the episode "Toxic Food - Poison On Our Plate?" visited various areas in India to show the rampant use of pesticides, and farmers actually refusing to eat their own yields and growing separate crops for themselves.

"Truth alone triumphs" in Hindi

The show highlights the efforts of the [Sikkim Government](#), which is committed to organic farming. Sikkim's CM Pawan Kumar Chamling said that they were planning to go organic by 2015 knowing full well the long-term benefits of the process. The government has banned all chemicals and fertilizers and started educating farmers about organic farming.

*Indian state located in the
Himalayan mountains*

It concludes that a long-term solution would be the implementation of a policy that will subsidize organic farmers and increase the number of organic outlets. Aamir Khan then asks people:

"Do you want the Centre and other state governments to follow Sikkim's example and help farmers in adopting organic farming?"



malnad mela

Help conserve
the rich
heritage of the
western ghats

The Malnad Mela Once More!
Join us for a celebration of seeds, produce, crafts, and food from the forest gardens and homes of the Vanastree collective.

Additional stalls:
The Concerned for Working Children (CWC),
A Hundred Hands, Daily Dump, Daman Ganga,
Vanamitra, Biome Solutions, Bhoomi Network,
Falcon Tools, Eco-Save India, BG
Handmade Paper & Others

Date **February 5-6, 2011**
(Saturday & Sunday)

Time **10 am to 6 pm**

Venue **Golden Beads School**
157, Richmond Road
Behind Big Kids Kemp, MG Road
Bangalore 560025

Contact **Sunita Rao 94802 99200**
Lalita/Manjunath 93421 89191
080 22719035

Vanastree

Bangalore has one of the highest densities of organic food shops in India. In 2012, the International Competence Centre for Organic Agriculture stated that Bangalore had 68 retail shops selling organic produce — including dedicated outlets as well as those that have sizeable space earmarked for organic produce.

bangalore.citizenmatters.in

According to Manjunath Pankkaparambil, owner of Lumiere, an organic restaurant and store in Marathahalli, Bangalore, Aamir Khan's episode on organic food as well as events like [BioFach organic exhibitions](#), contribute in raising consumer awareness about the advantages of consuming organic.

Biofach India offers the whole world of organic products from the Indian subcontinent to its visitors. The 6th edition took place in Bangalore November 13 to 15 2014.

“It is not just fashionable to be organic, people are understanding it.”

*Awareness rising exhibition and events on food gardens, seed saving and recycling.
© Vanastree*



Hasiru Thota under construction
© A. Bès de Berc

IV. II *Options available for those who wish to consume organic products in Bangalore*

Here is an overview of noteworthy organic outlets and initiatives in Bangalore.

The oldest, Jaivik Mall

Offspring of the State's horticulture department, Jaivik Mall is a state run-enterprise, selling organic since 2006, thus one of the oldest organic outlets in the city. It has a supply network of over 300 farmers and is advantageously located in [Lal Bagh](#). Due to the fact that produce is grown locally and purchased directly from farmers, their products are less expensive than the branded ones.

*Botanical Garden of Bangalore,
renowned for its excellence in
Horticulture*

Mother Earth

Mother Earth is a chain of organic stores across India which brand promises sustainable lifestyle thanks to a range of products going to furniture, clothing, staple food house cleaning and personal care items. Its products are popular among people with allergies, or those who come based on dietician's recommendations. More and more people among the younger generation, especially pregnant woman and young mother come to spend on organic products here. The store offers home delivery.

Home atmosphere, Vriksh, the organic store

vrikshorganics.com

Located in a peaceful house in Vyalikaval, the store is an initiative of three sisters interested in green lifestyle. It stocks a variety of organic products ranging from

fresh veggies and greens to grains, snacks, cosmetic products and even underpants made of organic bamboo cotton. Every Friday, small amounts of fresh organic produce such as carrots, beans, cucumbers, limes, and spinach grown by farmers in the nearby Nelamangala area are sold there.

It attracts curious customers and creates a social link in the neighborhood.



The terrace where the mini market takes place
© Vrikshorganics

The total-project, Hasiru Thota Mall

First sustainable mall of its kind in India, Hasiru Thota Mall is a meeting place for the ever growing community dedicated to the movement of sustainable livelihood. It is the latest project of Green Path, an NGO that helps building sustainable communities in urban area. It includes a cafe and a restaurant serving organic food, an organic store, a rooftop garden and a workshop space conceived to be « the germination ground for innovative and equitable ideas ».

This project is an innovative concept in India, where people can share thoughts and ideologies and build a strong relationship with nature.

Smarter Dharma, the first sustainability consulting organization in Bangalore helped Green Path realize it vision by proposing energy efficiency solutions to landscaping and natural water treatment implementations.

Jayaram H. R., owner of the Green Path and known leader in the environmental movement in Bangalore

The certified one, Era Organic

This store is another initiative of Green Path.

thegreenpath.in

There, you can find anything you require in your kitchen from organic sugar to organic cooking oil although they don't have a great variety of organic fruits and vegetables. Their brand ERA is supposed to be the first IMO certified organic food store in the country. It prones to engage the Bangaloreans on issues like health, wellbeing, and nutrition.

International Organic
Certifying Authority

The community one, Adi Naturals

Describing themselves as a community driven group interested in fostering organic and natural products use by working directly with producers and consumers, Adi Natural has been bringing together for 7 years producers and consumers through their web portal, but initially thanks to consumer awareness activities.

Anybody is free to register and be part of the community, which allows you to shop organic produce online from staple to fresh produces and lifestyle products. They do home delivery, or a pick up of the order at the store.

The balanced one, Yogisthaan

Only place that serves legitimate salads, the former Yoga House is one of the only place in Bangalore where one can eat a healthy, balanced meal on a daily basis. This cafe restaurant is very much appreciated of people who have a hard time dealing with all the greasy food and lack of vegetables which is common in India. The atmosphere of the place itself is very quiet and peaceful, despite its location in the trendy neighborhood of Bangalore, Indiranagar. The food here is clean, organic and come from trustworthy sources.



the homepage of the website yogisthaan.in displaying the kind of meal they serve
© Yogisthaan

*Oota from your Thota in 2012,
Malleswaram*
© Yogaraj Mudalgi



Literally 'Food from your garden'

Oota from your Thota

One day per year in a neighborhood of Bangalore happens the organic urban food farming / gardening fair of Bangalore.

The programme for organic farming enthusiasts includes lectures and discussions on organic farming, pest control etc. There is also an exhibition and sale of seeds, saplings, gardening accessories, compost bins and other accessories.

The hope is that by bringing common resources and interests together in these events, it will help spread awareness by proximity and allow Bangalore residents to have the tools available when they are ready to engage in organic.

Briefly:

AN UNDERSTANDING

All over India, people are getting more and more conscious about the health benefits of choosing organic lifestyle over the conventional one, at least for those who have the time and the resources to go for it. More than a trend, it is an understanding.

ALREADY ONE STATE IS GOING FOR IT

The Sikkim Government is committed itself in organic farming. But mediatisation and recognition around the topic are lacking.

MULTIPLE PROJECTS

From community to individual initiatives and commitment, change is happening in Bangalore. Inhabitants have a growing access to the organic produce thanks to the sprouting of organic outlets in most of the neighborhood of the city.



CONCLUSION

The objective of this thesis was to gather the required knowledge to answer the following intent: What are the cultural aspects/conditions when CSA can work in Bangalore, India?

Throughout this dissertation we observe that despite his chaotic history of agriculture, most of Indian farmers are not that disconnected from their traditional way of farming.

In order to meet the standards of food security from a sustainable and long term perspective, this knowledge can be enhanced thanks to scientific research initiative and a good communication by the governmental or non governmental institutions at the national level.

The structure itself of agriculture in India, with its huge predominance of small and marginal farmers cultivating small plots of land, family labour abundance and high flexibility in working capacities make it a particularly suitable ground for opportunities in organic, fair and ethical trade market.

Such a system would improve the livelihood and quality of living of these marginal farmers, while renewing the fertility and health of the Indian soils the future of the population depends on, as well as simply benefit the general health of the whole population.

But this change cannot happen without the support of national and local policies, which aren't effective to reach efficiently the marginal farmers, as we discovered in our exploration of the context.

However, thanks to media, NGO, and world openness, more and more people in India are becoming aware of the dangers of the highly toxic chemicals used in the conventional farming sector and the bad repercussion of processed food on their health, the health of their children and the sake of the environment. Will change happen through private initiatives then?

Observations in Bangalore have shown the dynamicity and the sprouting of private enterprises in a sustainable style of living, promoted by a health-conscious population, more than in any other city in India. The Bangalorean ground then appears ideal for embedding of a CSA project.

CSA can connect back Bangalore inhabitants to a land they gave up only a few decades ago, and that most of them now consider as dirty. There is now a demand and a need in the megalopolis urban exhausting lifestyle to go back to healthier and good old days roots.

More than giving Indian urban citizens an overview of the farmer's life, CSA can directly implicate them in the agriculture issues, as well as improving their diet habits, now corrupted by unhealthy food habits and physical inactivity as a result of a hectic and stressed life in a context of globalization.

A wise friend of mine once told me that in India, land of many religions, thousands of castes and millions of traditions, there is no single answer to what people consider special or natural. "Each state and each region has a unique perspective on nature... To a farmer it is the sun and rain, to a merchant it's money, etc."

So, what is your point of view?



BIBLIOGRAPHY

All other references have been mentioned along the text of the thesis.

Inde, Histoire, Société, Culture

Pauline Garaude, 2011, La Découverte/Poche

Silent Spring

Rachel Carson, 1962, 2012 reedition, First Mariner Books

Sharing the Harvest: a Citizen's Guide to Community Supported Agriculture

Elizabeth Henderson, 2007

Making Peace with the Earth

Vandana Shiva, 2013

Earth Democracy: Justice, Sustainability, and Peace

Vandana Shiva, 2005

Soil Not Oil: Environmental Justice in an Age of Climate Crisis

Vandana Shiva, 2008

Trade and Environment Review 2013, Wake up before it is too late, make agriculture truly sustainable now for food security in a changing climate

United Nations Conference On Trade and Development, 2013

Criticisms and Frequent Misconceptions about Organic Agriculture: the counter-arguments

International Federation of Organic Agriculture Movements, 2008