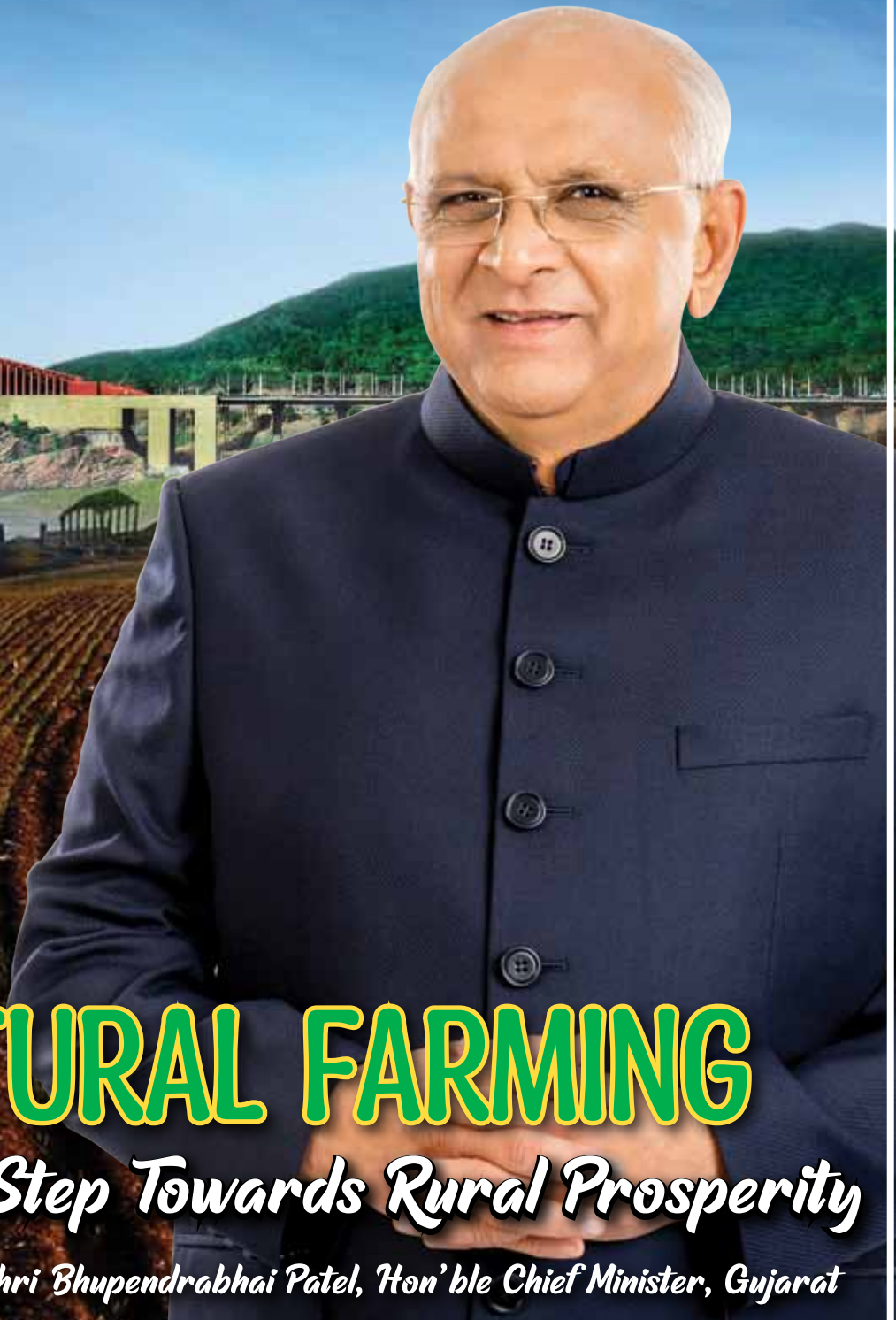


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## N TURAL FARMING

*A Healthy Step Towards Rural Prosperity*

*Shri Bhupendrabhai Patel, Hon'ble Chief Minister, Gujarat*





**Shri Narendrabhai Modi**  
Hon'ble Prime Minister of India



**Shri Bhupendrabhai Patel**  
Hon'ble Chief Minister of Gujarat



# Pre-Vibrant Gujarat Summit 2021

## Agro & Food Processing: Entering a new era of Co-operation

**14<sup>th</sup> - 16<sup>th</sup> December 2021**

**Anand Agricultural University Campus,  
Anand, Gujarat**

**Agriculture, Farmers Welfare and  
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## Gujarat

# A Role Model for Natural Farming

After the **Statue of Unity**, the Indian state of **GUJARAT** has another towering reason to feel proud about... Natural Farming!

The pandemic has taught us a very important lesson! We have been mercilessly neglecting our immunity. The high intake of chemicals through agro products has dangerously lowered our immunity levels, apart from damaging the soil, water and air. Doctors have confirmed the fact that a strong immunity can be the best defense against infections. This is only possible through chemical free food.

### Natural Farming is the answer!

After achieving food security with the Green Revolution, India now needs to start focusing on reviving soil health and food safety. Every nutrient a plant needs is available in nature. The humus that mulching creates enriches the soil and allows the growth of micro-organisms, including earthworms, which contains seven times more nitrogen, nine times phosphate and 11 times potassium than normal soil.

Natural Farming with indigenous cows not only restores soil health and food quality, it also helps in escalating farm revenue effectively. This will go a long way towards achieving Hon'ble Prime Minister's vision of Doubling Farmers' Income.

The tribal district of Dang in Gujarat was formally declared a natural farming district on 19th November by Hon'ble Governor of Gujarat, **H.E. Acharya Dewvrat Ji**. Dang is headed towards becoming a district free of chemical fertilizers and insecticide. The farmers in Dang have been conventionally practicing natural farming. Now the government is encouraging farmers by incentivizing it further.

Agriculture Today Group feels proud and privileged in bringing out a special edition on Gujarat Agriculture, scheduled to be released at the **PRE VIBRANT GUJARAT SUMMIT**. Under the guidance of Hon'ble Governor **H.E. Shri Acharya Dewvrat Ji** and Secretary Agriculture, **Sh Manish Bhardwaj Ji**, the edition focuses on the promotion of natural farming initiatives for rural prosperity and health security. Government support extended to farmers of Gujarat in adopting natural farming practices is exemplary.

On behalf of my team, I take this opportunity to thank the Government of Gujarat for their gratifying and overwhelming support in helping us plan this very special edition.

Every meeting with the Hon'ble dignitaries, distinguished officials and progressive farmers was a learning experience. Our heartfelt gratitude to **Sh Dharmik V Barot**, Director ATMA and his colleagues for an enriching journey that will fondly be remembered forever.



Happy Reading!

*Mauli*

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On War Footing  
To Promote  
Natural Farming

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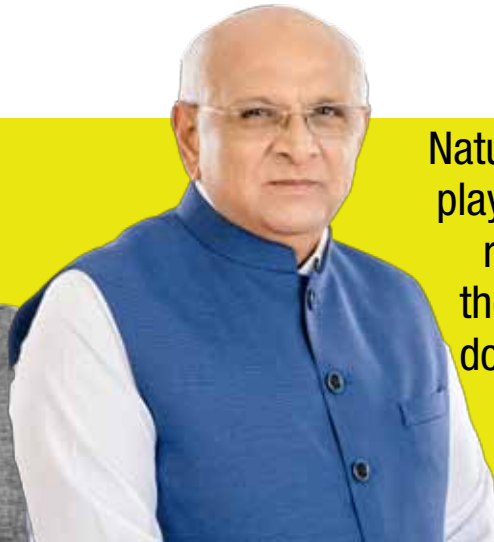
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**FOOD AND NUTRITION SECURITY, FARMER PROSPERITY THROUGH SPNF**

**WE ARE WORKING ON WAR  
FOOTING TO PROMOTE  
NATURAL FARMING**





I am extremely happy to see the progress we are making with Subhash Palekar Natural Farming (SPNF) in Gujarat. The state is committed towards making the farmers prosperous and also ensuring healthy, nutrient-rich and chemical free agricultural produce.

We recently organized a training camp for 2500 farmers at Adalaj. We are training the trainers here. We are organizing more such training camps all over the state. Farmers who have adopted natural farming are very happy. The yield from their farms is the same as before or has increased. Their farms are emerging as model farms where the neighbouring farmers can visit. They can see firsthand the benefits of natural farming and they shall also feel encouraged to adopt it.

Globally, agriculture is facing multiple challenges. With global warming, new challenges have arisen. Natural farming is the answer to the diverse difficulties being faced by the farmers. This is the reason why we are working on war footing to promote natural farming.

Chemical farming is aggravating the challenges being faced by agriculture. Chemical farming is highly challenging for the soil and also for the environment. We are facing multiple climate crises.

Many years ago when I followed chemical farming, I was shocked to learn that men used to faint while spraying the insecticide. This is what we are feeding ourselves with chemical farming. In addition, we are polluting our soil, our groundwater with chemical farming.

In villages, we used to have water from the ground. Thanks to chemical farming and multiple other factors, water has become so polluted that you cannot consume it directly. Land fertility is dropping. Earthworms multiply land fertility, but chemical farming kills the earthworms.

On the other hand, farming done using the gobar and gau mutra of desi cows allow the earthworms to flourish.

## Globally, agriculture is facing multiple challenges. Natural farming is the answer to the diverse challenges being faced by the farmers and the environment

The friendly pests, the friendly worms, the birds – all creatures flourish.

### CHEMICAL FARMING IS SLOW POISON

We damaged the ecosystem so much with chemical farming. But what did we achieve? The input cost kept increasing. In addition, we had to pump in more and more urea, more and more fertilizers, pesticides and insecticides. What are we giving ourselves in turn? If we consume food made with deadly products, we will get deadly diseases. It is a slow poison and we are all getting exposed to it.

Study the statistics of cancer, heart attack, diabetes and other diseases 50 years ago. Study the current statistics. You shall be shocked. A major factor here is the highly adverse impact of chemical farming.

Natural farming is science-based. We have the agricultural scientists of leading agriculture universities on board. They have studied the farms which have adopted natural farming. They call it an “adbhut karyakram”.

In order to pursue natural farming, we got the gobar of buffalos, HF cows, horses, goats etc tested in a lab. The tests revealed that the gobar of the desi cow had the highest strength of friendly bacteria which boost soil fertility. No other animal matches it. The gobar of stray cow has even higher concentration of friendly bacteria because its energy is

not diverted to milk production.

These friendly bacteria become the fertilizer for the farm. No additional fertilizer is required. All the essential minerals needed for plant growth get catalysed and released from the soil. The earthworms flourish and hence the crop also flourishes. This is the same principle that applies in the jungle. Nobody applies fertilizers, insecticides or pesticides there. The jungle prospers without any human inputs.

Natural farming must not be confused with organic farming. Natural farming is based on the gobar and gau mutra of the desi cow.

The government is spending lakhs of crores on fertilizer subsidy. Plus chemical farming has a detrimental impact on health. It is highly encouraging to observe that farmers are getting inspired to shift to natural farming on observing the benefits.

Prime Minister Shri Narendra Modi has ensured that farmers get the handholding they need for making the shift to natural farming. The change has started happening.

Green revolution was required at that time when it happened. But for many years, it has been known that drastic damage to the environment is taking place. Because of the chemical residue in crops, our export has started getting impacted. Our people are suffering because we are eating products for which harmful inputs have been used indiscriminately. We urgently need to leave chemical farming and adopt natural farming. Natural farming will benefit all and will also save the environment. *Kaam ek, laabh anek.*

Now we have 2 lakh farmers practicing SPNF in Gujarat. Earlier I was the Governor of Himachal Pradesh. We introduced natural farming there. The farmers saw the amazing and highly positive results of natural farming. Now an impressive number of farmers practice natural farming in Himachal Pradesh, also in other states. This number shall steadily increase.



# DANG

**Spearheading  
Natural Farming**



**W**ith an area of approximately 1,764 km<sup>2</sup>, Dang district in Gujarat is situated in the south eastern part of the state. The lone hill resort in the state of Gujarat, Saputara hills are located in the Dang district at an altitude of 1000m.

The origin of the name of the Dang is uncertain. It means “a hilly village”. There is another connotation of the word ‘dang’ which means bamboo (a place of bamboo). In some ways, the name is also associated with Hindu mythology. It is related to the *Dandakaranya* of the Ramayana. It is said that during the exile, Lord Rama passed through this area on his way to Nashik.

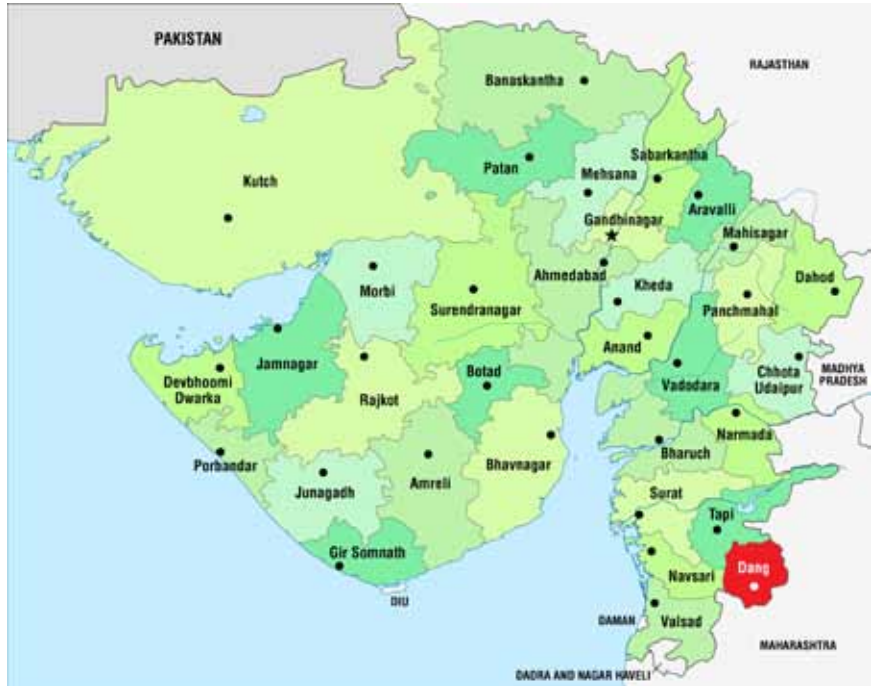
The least populous district of Gujarat, Dang has its administrative headquarters in Ahwa. 94% of the population belongs to one of the scheduled tribes. The five Kings of Dang are the only hereditary royals in India whose titles are currently recognized by the government owing to an agreement made during the British Raj in 1842.

The historical District is the only District of Gujarat with dense forest. Total 311 villages are covered by Dang, where even today 75% of population is living below poverty line and 98% population is scheduled tribe.

Dang District has part of a forest that includes Purna Wildlife Sanctuary. It is shared between the districts of Dang and Tapi in Gujarat and Nandurbar District in Maharashtra, and Vansda National Park in Navsari District, which shares a continuous tract of forest with Valsad district. Purna, Ambika, Gira and Khapri are some of the rivers of the Dang district in Gujarat.

### DANG AND AGRICULTURE

Dang farmers have been practitioners of traditional agriculture with a very low level of fertiliser consumption. Out of nearly 58,000 hectares under cultivation in the district, at least 70 per cent to 80 per cent of land was already covered under traditional farming practices that don't require chemical fertilisers and







pesticides. However, in certain pockets, where they grow rice, farmers are dependent on chemical fertilizers.

The Gujarat government in 2015 declared a natural farming policy, which stated that areas that have a very low level of fertiliser consumption could play an important role in promotion of natural farming. Dang perfectly fitted this criterion and with efforts and policies from the government, the area was declared a 100 per cent natural farming district.

The State government has taken several steps to encourage farmers to avoid using chemical fertilisers and pesticides on the entire cultivable area and is working on converting the entire cultivable land in the district into natural farming areas and subsequently promoting the agricultural products of Dang as certified natural products.

The State government is providing each farmer in the predominantly hilly

district with a subsidy of Rs 10,000 per hectare for a maximum of two hectares for adopting natural agricultural practices which would compensate farmers for fall in production by adopting natural farming practices. The government is still in the process of implementing this system, and almost twelve thousand farmers have been given subsidies.

At present, Dang produces paddy, nagali, varaj, groundnut, black urad and toor, gram, wheat, mango, cashew and various vegetables. Local farmers are likely to be given special incentives. Natural practices will be introduced in animal husbandry in addition to farming.

The government will also be extending major support in selling and marketing natural products of farmers who adopt natural farming in the district. On the basis of the Dang model, the government plans to extend natural farming into other districts as well.

### **DANG- THE LAND OF PROGRESSIVE FARMERS**

Dang is home to thousands of farmers who carry out natural farming. These farmers are referred to as “progressive”, and rightly so, as they carry out natural farming with minimal or no use of harmful chemicals.

“Natural farming is the way of life for all farmers residing here. Most farmers have carried out natural farming in their farms for years now. All the farmers here and the residents of Dang lead a life in harmony with nature. This reflects in every aspect of our lives, from farming to diet,” says Kishor Gavit, a progressive farmer from Dang.

Currently, there are over twenty thousand farmers performing natural farming at Dang, and the average land size of each farmer varies between 3-4 hectares.

Mr Gavit himself is a progressive farmer in Dang. He has been farming



since 2006 and over the years he has worked towards spreading awareness about natural farming among his fellow farmers and has encouraged them to discard the practice of using fertilizers and other chemicals in farming.

In his effort to promote natural farming, Mr Gavit during 2016-17, visited various farmers of the district searching for traditional varieties of seeds. His main aim was to encourage farmers to switch to the traditional seeds from hybrid varieties that often needed pesticides and fertilizers.

His efforts bore fruit and with time, over a hundred different traditional varieties of rice were brought to farmers' notice, making it easier for them to give up hybrid varieties and grow the traditional ones, without any chemicals.

The farmers of Dang now have a wide variety of traditional seeds to choose from, and carry out natural farming on their respective lands. Not only had these traditional seeds reduced dependence on chemicals, but also added more profit to the Dang farmers.

Mr Gavit runs a full fledged natural farm in Dang district, named "Sanket Natural Farm", where he carries out natural farming to cultivate different varieties of rice.

Poongar Rice, commonly known as Red Rice grown in his farm, gives strength to the body, and the Rice kanji is has proved to be very beneficial for pregnant women. Poongar is one of the traditional rice varieties that can grow with very less water. It is flood tolerant, and can grow in a period of 60 days. This Rice is suitable for making idlis and dosa.

Kalabhat Rice, also known as Black Rice is another traditional variety of Rice grown in this natural farm. It is known to contain large amounts of antioxidants, and is also rich in protein and dietary fibre. Black Rice is a rich source of Vitamin E and iron.

Krishna Komad Rice popularly known as the "Basmati of Gujarat is famous for its wonderful taste and



**Natural farming is the way of life for all farmers residing here. Most farmers have carried out natural farming in their farms for years now. All the farmers here and the residents of Dang lead a life in harmony with nature. This reflects in every aspect of our lives, from farming to diet**

outstanding aroma.

Shri Gavit purchases the produce of the farmers who use traditional seeds at prices slightly higher than the market prices, so as to encourage them to produce more using natural methods and because of the excellent quality of this produce.

Talking about government initiatives to promote natural farming and encouraging the farmers of Dang district, "Krishi Mela" has played an important part avers Gavit. The mela showcases the produce of different local farmers and is regularly organized in Surat and

Navsari. The government provides a big platform for the farmers to sell their produce and earn a good amount of profit.

"It provides wonderful opportunity for a farmer where all the facilities of the stall are paid for and taken care of by the government," he said. He is a staunch supporter of Shri Subhash Palekar Natural Farming, and emphasized on its merits.

"Not only does natural farming ease the burden of expenses on the farmers, but the produce is also a lot healthier since it is free from chemicals. The use of chemicals such as fertilizers and pesticides have deteriorated the soil health and is harmful for both the farmers as well as the consumers of the produce," he added.

As per the Planning Commission, Dang is one of the most economically distressed district out of 640 districts in India. To accelerate the development of the region, natural farming can play a key role as it reduces the use of expensive chemical fertilizers and pesticides. Besides, natural products fetch better price in the market, aiding in increasing the profit margins.

# NATURAL GREEN REVOLUTION BY SAMUH KHETI

It is a matter of pride for our country that in Bagathala village in Morbi District, 1200 farmers have formed an FPO to engage in Samuh Kheti or Group Farming.

Five entrepreneurs with a passion in agriculture joined forces to create BKISAN (GUJ). This is an FPC (Farmer Producer Company) created with the objective to help traditional farmers improve their livelihood by giving them an improved direction involving core agricultural practices.

Farmers with small land holdings such as one to five acres have to incur a myriad of expenses for resources such as water, drip-system, tractor, motor, room, boundary, electricity system etc. Their expenditure is similar to those farmers who own larger tracts of land.

One of the core objectives of forming the FPC is that such costs can be avoided if we join forces, seek supportive policies and get support from the government to do collective farming.

Presently, farmers have to incur major expenses like chemical fertilizers, Pesticides and excessive wages. Therefore, after much deliberation and consultations with experts was born the concept of "Collective Bamboo Natural Farming". This has emerged as a sustainable initiative in support of "CARBON NET ZERO" mission of our Honorable Prime Minister Shri Narendra Bhai Modi, a true global Leader.

## COLLECTIVE NATURAL FARMING FOR BAMBOO

Thereafter the farmers submitted a formal proposal to the Gujarat government requesting ease in formalities and process time from submission to formation of the FPO. The state government helped their efforts. This made their journey a smooth flow and enabled them to move forward.

Introduction and encouraging rampant use of chemical fertilizers and pesticides used by farmers led to a certain level of employment generation and also became a way of life. But on the flipside, it led to degeneration of soil, loss of microbes and micro-nutrients and hence lack of nutrition in food, contamination of food



**SHRI PARSHOTTAM RUPALA**  
MINISTER OF FISHERIES,  
ANIMAL HUSBANDRY AND  
DAIRYING



with harmful fatal disease-causing elements, air and water pollution etc.

Rejuvenation of soil, forestation and sustained scientific and Vedic practices are needed to be implemented at mass scale with the support of the governments to counter the deterioration and breakdown that has happened over the last 60 to 100 years.

Our Collective Bamboo Natural Farming is an initiative in that direction.

### GEOGRAPHICAL AREA

The geographical belt lying 45 kms inland from the Gujarat coast and running along 225 Kms between Dwarka to Samakhiali has several climatic and water quality challenges due to proximity to the ocean and extreme weather conditions. Combined with wrong agricultural practices over several past years, the soil has become very acidic and saline.

One of the very few options that we can use to rejuvenate and reverse the process over a period of time is to make the soil live with humus formation, trap Organic Carbon, generate high amount

### INSPIRING STORY OF BAGATHALA VILLAGE AT MORBI

Morbi in Gujarat is famous for its ceramic industry, especially ceramic tiles and sanitaryware. India exports the ceramic products and sanitaryware made at Morbi to several nations globally.

Unfortunately, some units had to be closed due to some operating challenges. This led to unemployment for a large number of people. The lockdowns caused by the pandemic in 2019 and 2020 led five businessmen friends to brainstorm and come up with the brilliant idea of moving into a regenerative way of life, taking the entire community along towards prosperity.

Nothing seemed to be working for this area for nearly two years. People were dejected and mentally exhausted. They had seen a lot of deterioration, breakdown of confidence and stress buildup. The inspiring concept of community farming and using bamboo as the major resource came as a blessing for them. This created huge opportunity of creating social upliftment – much larger than had been envisaged.

The five friends took the initiative to educate the villagers about this new concept. They urged the villagers to be part of the vision through classrooms and Panchayat level sessions called Kisan Pathshala.

The five friends also worked tirelessly in preparing presentations and meetings with the government to seek ease of putting the words into action. They had a clear roadmap for the development of the area. They sought subsidies and support for the initial three years until the plantations started to yield the bamboo which could kick-start the local economy.



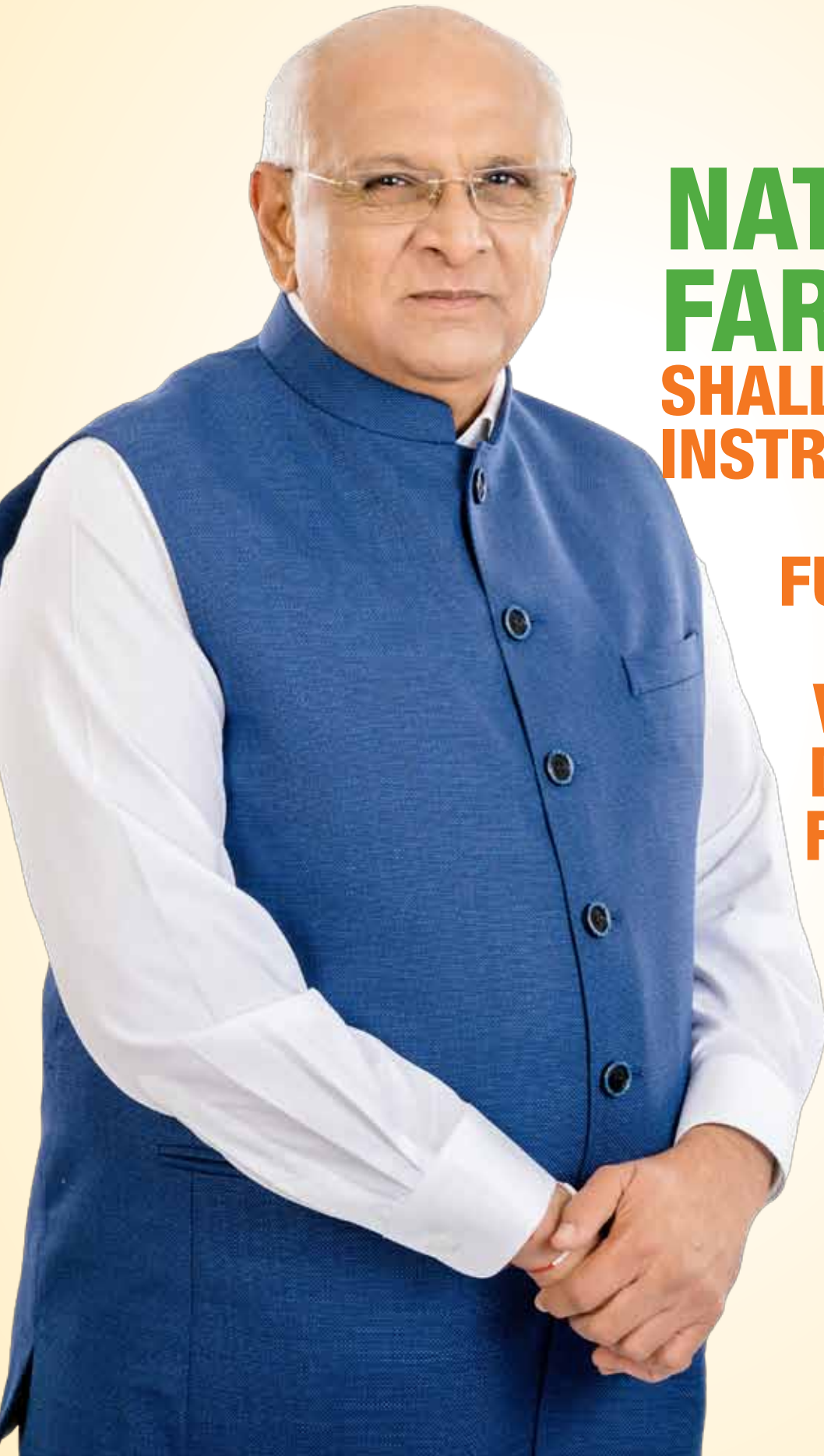
Sh Guru Deepak Suchde, Sanja Chirag Ratanji Bhai and Nituben are committed to Hon'ble Minister, Sh Rupala Ji's vision for MORBI



of oxygen. This shall provide income, livelihood, establish industries, and above all fight global warming, climate change etc. Large tracts of land can be taken under collective farming as has been done in Bagathala village.

Bagathala Village of Morbi will be a leader in being referred to as the Mega Oxygen Park.

**Coordinator Sanja Chirag Ratanji Bhai, BKISAN (Gujarat) Farmer Producer Company, Morbi**  
Bkisanmorbi@gmail.com



**NATURAL  
FARMING  
SHALL PLAY AN  
INSTRUMENTAL  
ROLE IN  
FULFILLING  
THE PM'S  
VISION OF  
DOUBLING  
FARMERS'  
INCOME**

**Shri Bhupendrabhai Patel**  
Hon'ble Chief Minister, Gujarat





**What is the vision that made Gujarat make the shift to natural farming? How has the state government promoted this method of farming and what significant milestones are achieved so far by the state of Gujarat?**

Today, we are sincerely focusing on natural farming in the state. In Gujarat we are particularly promoting indigenous cow-based natural farming, where no harmful chemicals are used. A farmer owning one cow can cultivate around 30 acres of land using cow dung and urine. Such natural ingredients raise the soil fertility and bring down the input cost of the farmers. Besides, demand for organic products has surged recently, and therefore farmers are getting good prices for their natural products.

Now, to encourage the farmers of Gujarat to adopt natural farming, the state government has implemented various schemes and initiatives. We are providing annual assistance of Rs 10,800 for the maintenance of a desi cow to the farmers, who have adopted natural farming. So far, assistance of around Rs 200 crores has been distributed among 2 lakh farmers. Moreover, the scheme also provides assistance for purchasing a Prakrutik Krushi Kit (Rs 1,300 per kit) to prepare a natural pesticide called 'Jeevamrut'. More than 40,000 farmers have been given subsidies of around

**FPOs will facilitate the sale of natural products and ensure that even the small farm holders receive good prices for their produce**

Rs 5 crore for Prakrutik Krushi Kit. To promote this method, we have published literature like booklets on success stories of farmers adopting natural farming, handbills etc.

We have also circulated a book "Prakrutik Krishi" among farmers, which is written by Hon'ble Governor of Gujarat Shri Acharya Devvrat. We have also promoted natural farming through Quickies, short videos, advertisements on television, radio as well as on bus panels so that the word can spread to more farmers. As a result, today around 2 lakh farmers are engaged in natural farming.

**It is regarded that marketing is a vital link for the success of natural farming. Please tell us of the initiatives taken by the state to provide the marketing linkages to the farmers.**

Farmer Producer Organizations (FPOs) will be an important aspect in providing marketing linkages to the farmers undertaking natural farming, to facilitate

the sale of natural products and to ensure that even the small farm holders receive good prices for their produce. Currently, we have 84 Natural FPOs in the state.

In Gujarat, we have taken several steps to provide the marketing linkages to the farmers. For example, a seven days Amrut Aahar Mahotsav was celebrated across the state in December 2020, where farmers sold their products directly to consumers. A three days Farm Fresh Festival was celebrated at Riverfront, Ahmedabad in March, 2021, in which around 74 farmers sold their farm produce of around Rs 50 lakh directly to the consumers.

Similarly, an exhibition cum sale was arranged at Army Campus - Chiloda, Coast Guard - Porbandar, Air Force - Chiloda, Border Security Force, Chiloda and CRPF campus, Chiloda, Gandhinagar where farmers' natural products were sold. Also, "The Natural Shop" under the Natural Farming campaign was inaugurated by Hon'ble Governor of Gujarat at Sector-21 in Gandhinagar in October 2021.

Gujarat recently celebrated the 75th foundation year of Amul on the birth anniversary of Shri Sardar Patel in the august presence of Hon'ble Union Home and Co-operation Minister Shri Amit Shah. During the programme, Shri Amit Shah urged the officials of



Amul to provide a platform for farmers to move towards organic and natural farming as well as create a fair sales system for agricultural products such as fruits, flowers, vegetables and cereals produced by farmers on a cooperative basis.

### SHOWCASING THE DANG

One more interesting initiative that I would like to share with you that in order to popularize the identity of Dang, a special song was composed by the famous comedian and promoter of natural farming, Shri Sairam Dave, in which the natural beauty of Dang, farming activities, *Dhavlī Dod* folk dance, costumes, dialects and culture of Dang has been showcased.

**Please tell us about how natural farming is proving to be a success story in ensuring Prime Minister**

**Shri Narendra Modi's vision of doubling farmer income.**

Natural Farming shall play an

instrumental role in fulfilling the vision of Hon'ble Prime Minister Shri Narendra Modi of doubling farmers' income. In the natural farming system, the input cost is low as there is no need to purchase fertilizers or other pesticides from the market. On the contrary, natural farming promotes the use of natural ingredients available at farm or home. This reduces the cost of cultivation. Today, there is huge demand for organic and natural agriculture products in the market and people are ready to pay higher prices to get good organic food products. So, the farmers get higher prices for their products produced through natural farming as they are chemical free & having higher nutritional value. In foreign market also, there is a very







good scope for chemical free agriculture commodities, which increases export potential of the natural agri produces. This is increasing farmers' income and they are gradually prospering.

**Please tell us about the feedback that the state has received from the farmers who have adopted natural farming and how it can transform the rural economy.**

The state government is getting positive response from the farmers who have adopted natural farming methods. This method has encouraged the farmers to breed *desi* cows. The use of Jeevamrut and Ghan Jeevamrut i.e. natural pesticides greatly enhanced soil fertility and quality of the crops. Farmers don't need to spend a high amount of money on chemical fertilizers and pesticides. Besides, farmers are getting good prices for their natural farm produce. This way natural farming has increased the income of the farmers. The country's economy is majorly supported by the rural economy. It is therefore imperative to maintain the rural economy and raise the standard of living of the people in rural areas. As I said earlier, the natural farming method helps in saving input costs of farmers and increasing the quality of their farm produce. In natural farming, land fertility

**The state government is getting a positive response from the farmers who have adopted natural farming. This method has encouraged the farmers to breed *desi* cows**

improves which helps the farmers to produce good quantities of their farm products in every season.

Thus, less input costs and higher prices of organic farm produce will increase the income of the farmers on a large scale. It will help in doubling their income. The new generation of farmers is also being motivated to adopt this farming. Considering all these, I am confident that the rural economy will accelerate again in the near future. The cows, whom we consider as our 'Mother', will be the mother of natural farming, which will give a new direction to the rural economy.

**Please tell us about the initiatives of the state in Dang district and how it has benefited the farmers.**

We take immense pride in seeing our own state's Dang entering the list of 100% natural farming districts. In Dang,

farmers have been doing chemical free farming on a large scale and many farmers are in some way involved in natural farming.

The main crops grown here are Paddy, Nagli, Vari, Udad, Toor, Groundnut, Kharsani. Horticultural crops here include mango, cashew and strawberry, which are produced in a large quantity. Besides, farmers also grow spices and medicinal crops here in a large amount. Farmers of Dang are earning good prices for these crops and they are increasing their income day by day. As the government for people, we are also encouraging them through some initiatives like Financial Assistance Scheme of Rs 20 crore for Farmer Families in Dang, Rs 10,000 per hectare compensation to the farmer families for possible farm yield loss, a provision of Rs 20 crore has been made for annual assistance etc.

We have formed three FPOs in Dang in association with over 300 farmers. These FPOs will enable them to avail credit loan facility of Rs 18 lakhs and Rs 2 crore for management cost under Government of India scheme.

Also, we are planning to start special Gram Hat Kendras to sell natural agricultural products to the tourists coming from outside.



# *vibrant* GUJARAT

## FROM ATMANIRBHAR GUJARAT TO ATMANIRBHAR BHARAT



**V**ibrant Gujarat, the brainchild of PM Narendra Modi when he was the Chief Minister of Gujarat, has over the last two decades attracted the best minds and ideas in business to Gujarat. A biennial investors' summit held by the Government of Gujarat in Gujarat, was conceptualized in 2003 by Shri Narendra Modi to re-establish Gujarat as a preferred investment destination within India. Today, the Summit has evolved into a platform for brainstorming on agendas of global socio-economic

development, in addition to being a facilitator for knowledge sharing and forging effective partnerships.

In its 10th edition, the Vibrant Gujarat Global Summit 2022 with the central theme: 'From Aatmanirbhar Gujarat to Aatmanirbhar Bharat', a unique opportunity is being presented to address shared contemporary challenges and chart a path forward for global sustainable development by augmenting international cooperation and partnerships.

In the backdrop of subsiding covid cases and rapid vaccination, the

industry is gearing up for a much hoped economic recovery. Vibrant Gujarat is expected to be a catalyst at this juncture and would give the much needed impetus in the economic development of the state. As many as 12 MoUs entailing proposed investment of Rs 14,000 crore in Gujarat were signed as part of the upcoming Vibrant Gujarat Global Summit 2022. It was the second MoU signing event ahead of the VGGS to be held on January 10-12 next year, attracting the total proposed investments of over Rs 38,188 crore so far. The state government has decided to organise the





MoU signing event on every Monday in the run up to the VGGS which will be inaugurated by Prime Minister Narendra Modi on January 10 at Mahatma Mandir in Gandhinagar.

### FROM ATMANIRBHAR GUJARAT TO ATMANIRBHAR BHARAT'

Vibrant Gujarat 2022 is the much awaited event now and it will be showcasing to the world Gujarat's preparedness in leading the country to achieve the goal of Atmanirbhar Bharat. As a precursor to the Summit, seminars, events and exhibitions to showcase Gujarat's distinctive accomplishments, strengths across sectors, and its preparedness to lead Aatmanirbhar Bharat's growth story are being actively organized. The seminars will focus on topics such as Sustainable Agriculture Practices and Agro & Food Processing.; "Export-led Growth" by propelling Local goes Global to achieve the per annum export target of US\$ 1 trillion by FY28.; Positioning Gujarat as a global investment destination for textiles by augmenting PM MITRA Parks and PLI Scheme for technical textiles.; International Conference of Academic Institutions with focus on the National Education Policy 2020 for knowledge and skill-based economy.; Holistic Healthcare: Good Health and well-being for All; Opportunities in Dholera Special Investment Region – India's first Greenfield Industrial Smart City as well as on and Startups for Inspiring Disruptive Innovations.



The pre-Summit exhibitions will include the 15th edition of ENGIMACH one of India's most acclaimed Engineering, Machine Tools and Automation Exhibition as well as Signature Sparkle 2021 which is one of the biggest Gems and jewelry Retail exhibitions of India.

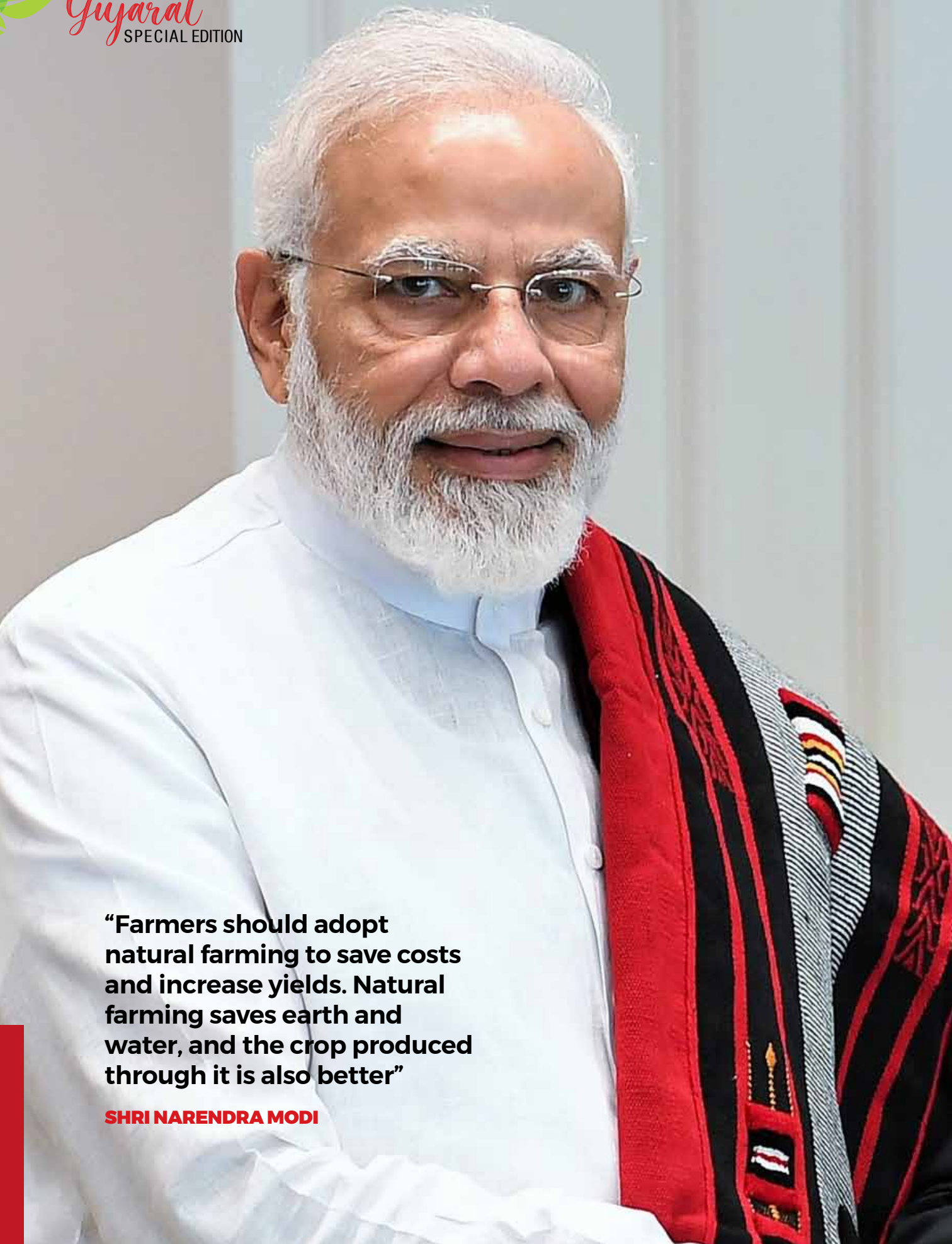
The Summit will host flagship events on key national initiatives as well as emerging global agendas. As India completes 75 years of its Independence in 2022, "Azadi @ 75" will focus on flagship initiatives of the Government of India such as PM GatiShakti National Master Plan, PLI Schemes with the vision of making India Aatmanirbhar as well as transformative governance reforms undertaken for reducing compliance burden for ease of doing business and ease of living. The seminar on Transitioning to a Green Economy will focus on global agenda pertaining to sustainable economic development and climate change with focus on National Hydrogen Mission and Green Hydrogen, Renewable Energy and Electric Mobility.

In line with Hon'ble Prime Minister's vision of Digital India, the seminar on TECHADE will focus on technology & innovation as the drivers of next economic growth. The Roundtable with Global Financial Institutions (IFIs) will focus on FinTech, Sustainable Infrastructure Financing, Asset Monetization, Alternative Investment Funds as well as emerging opportunities in Aircraft Leasing and Bullion Exchange at GIFT City.

The Summit will provide a platform for B2B and B2G meetings as well as for countries and states to organize seminars to promote and showcase investment opportunities in their region.

The Vibrant Gujarat Global Trade Show 2022 - Towards a Sustainable & Aatmanirbhar Bharat will be organized at the Helipad Exhibition Centre, Gandhinagar, Gujarat with focus on the following areas: Green Mobility, Clean Energy, Natural Agriculture, Sustainable Infrastructure, Blue Economy among others. The trade show will provide a platform for buyer-seller meet which will benefit MSMEs.

When Shri Narendra Modi visualised the event, it was one of a kind in the country, an experiment which many years later would unfold into a much awaited event. His vision has today built a global image for Gujarat. The event has moved beyond from being an investor meet to a broader one encompassing global issues, networking and knowledge sharing.



**“Farmers should adopt natural farming to save costs and increase yields. Natural farming saves earth and water, and the crop produced through it is also better”**

**SHRI NARENDRA MODI**



# GOOD FOR EARTH, GOOD FOR FARMER

**NATURAL FARMING IS THE RIGHT WAY AHEAD**



**Raghavjibhai Patel**

Minister of Agriculture and  
Animal Husbandry

**N**atural Farming is highly helpful to fulfill Prime Minister Shri Narendra Modi's vision of doubling farmer income. In natural farming system input cost is very low since no purchases have to be made from the market. Farmers use natural ingredients available from farm or home which reduces the cost of cultivation. Farmers get higher price due to chemical free and higher nutritional value of their produce. This increases the farmers' income. In the global market, there is good demand of chemical free agricultural commodities. Hence natural farming produce has good export potential.

### HIGHER PROFITS FOR FARMERS

With the adoption of natural farming methods, there is increased enthusiasm of farmers towards the breeding of *desi* cows. Use of Jivamrut and Ghanjivamrut greatly enhances soil fertility and crop quality. Natural farming has increased the income of farmers since they get good price for the naturally grown produce. Natural farming requires less water. That decreases the cost of farming as well as increases the micronutrients in the soil. Farmers engaged in natural farming earn social respect and esteem. Farmers adopt grading, packing and value addition of their produce in their own way. They are able to sell their produce at good prices in nearby markets and also have strong potential in the national and international markets.

### ROADMAP ADOPTED BY STATE TO BOOST NATURAL FARMING

We selected one farmer from each village. We trained these farmers as master trainers so that they could adopt natural farming. They formed natural farming groups at the village level and started a campaign to train other farmers.

During the Covid lockdowns, we organized webinars and informed/trained the farmers through e-gram



With the adoption of natural farming methods, there is increased enthusiasm of farmers towards the breeding of *desi* cows

center through BISAG.

Natural farming is being practiced in Gujarat for five to six years. The farmers observed how they were benefitting after getting associated with natural farming methods. They started promoting this method in their own way at village and block level. We associated these farmers with the SPNF movement and





also associated them with the ATMA Project for promoting and disseminating natural farming in an organized way.

Amrut Mahotsav was organized for the sale of products produced from natural farming so that the farmers who sell directly to the customers get good prices for their natural farm products.

District and Taluka level FPO were formed by forming a group of farmers engaged in natural farming. The government set up the model farms of natural farming at village level so that the farmers can get guidance by visiting/training at these model farms. The Family Farmer Campaign was launched to make natural farm produce easily available to the residents living in urban areas. All the farmers who are doing natural farming – their farm is registered with the government approved organization i.e. GOPCA.

### STEPS TAKEN BY THE STATE GOVERNMENT TO BOOST NATURAL FARMING

- ▣ Financial Assistance Scheme of Rs 20 Crore for farmer families engaged in complete chemical free natural farming in Dang district
- ▣ Compensation to the farmer family for possible farm yield loss at the rate of Rs 10000 per hectare. Provision of Rs 20 crore has been made for annual assistance.
- ▣ Provision of Rs 10 crore for third party organic certification and hand holding of farmers.
- ▣ In this scheme, Rs 6.81 crore has been paid to 13009 farmer families.
- ▣ Three FPOs have been formed in Dang district with association of more than 300 farmers.
- ▣ These FPOs will be able to avail credit loan facility of Rs 18 lakhs and Rs 2 crore for management cost under Government of India scheme.
- ▣ Special arrangements are being made for food processing, sales arrangements, value addition and grading under FPO.
- ▣ In order to popularize the identity of Dang, a special song was composed



In the global market, there is good demand of chemical free agricultural commodities. Hence natural farming produce has good export potential

- ▣ by the famous comedian and promoter of Natural Farming, Shri Sairam Dave, in which the natural beauty of Dang, farming, dhavli dod folk dance, costumes, dialects and culture has been shown
- ▣ As Dang is a tourist destination, special Gram Hat Kendras will be started to provide natural agricultural products to the tourists coming from outside.
- ▣ Thus, when Dang district is becoming a natural farming area, the standard of living of the farmers here will be high, the cost of health will reduce, the breeding of native cows will be done and the income of farmers will increase
- ▣ Two schemes of natural farming were introduced in the year 2020-21 with the objective of making the farmers aware of natural farming by the state government, cultivating in

this system and keeping of native cows.

1. Desi cow Assistance scheme in which Rs 900 per month is given for maintenance cost of desi cow, totally Rs 10800 per annum.
  2. Assistance scheme to purchase kit A) One Drum (200lt.) B) One Bucket (10lt) c) TwoTusb (10lt) in which Rs 1350 subsidy is given to the farmers.
- ▣ As a result of this scheme, a total of 105000 farmers in the state joined natural farming in the year 2020-21. The agricultural products from natural farming came to market in large quantities.
  - ▣ The plan for keeping domestic cows was continued till last year. A total of 171,000 farmers took advantage of this scheme together with the beneficiaries of the current year. At present more than 2 lakh farmers in the state have joined this farming system. This is the effort of the state government and the hard work of the agriculture department as well as the enthusiasm of the farmers.
  - ▣ Apart from this, the state government has declared Dang district as a completely chemical free farming district this year and also introduced a special financial scheme for the farmers there.



# COW-BASED FARMING CAN TRANSFORM THE RURAL ECONOMY

**MUKESHBHAI PATEL**

State Minister for Agriculture,  
Energy and Petrochemicals





**N**atural Farming is proving beneficial to the farmers and also to the society in many ways. Farmers who pursue natural farming are held in high esteem socially because they are not using any pesticides or chemicals to grow their produce. Their produce is clean, healthy and nutritional for the society and for the environment. Additionally, these farmers get a higher price for their produce. When the farmers shall be able to achieve prosperity in their village itself, this shall accelerate the rural economy. This will stem urban migration. Farmers will not have to move to the cities to earn a good income.

The country's economy and food needs depend on the rural economy. Also, more than 50% of the country's population lives in rural areas. It is then imperative that their economy be raised to a higher standard of living. We are currently seeing an increase in farming costs to farmers due to chemical farming. Farmland is losing fertility. Production is declining, Prices in the market are also getting such that the standard of profit has become negligible. Farmers have to buy inputs required for farming, which need a heavy investment. But they have no guarantee that they shall get a good crop. Whenever there are natural

**After Covid, there is rising awareness among the people regarding good health. As a result, farmers are able to get good prices for natural farming produce. The income of the farmers is increasing**

storms, rains and cyclones, agriculture has to suffer heavy losses.

The only solution to all these problems that has come before us is Natural Farming. This is indigenous cow-based farming. It is practiced using indigenous cow dung and cow urine. In addition, there is no need to buy any type of inputs from the market for this farming, so the inputs cost is saved. In addition, fertilizers and pesticides are not used in this cultivation. Various extracts like Jivamrut and Ghan jivamrut are made using natural products on the farm. This is a very superior alternative to chemical fertilizers, and also to pesticides.

After Covid, there is rising awareness among the people regarding good health. As a result, farmers are able to get good prices for natural farming produce. The

income of the farmers is increasing.

#### **NEGLECTIBLE COST OF FARMING**

If cow based farming is adopted by the farmer at the village level, then the cost incurred for the farming activities is negligible. There is exemption from the cost of chemical fertilizers and medicines for agriculture. There is no need to take any loan for farming. The cost of water is reduced as water requirement is very low in this farming. If there is a native cow in the house then the children gets nutritious milk. This type of farming method fertilizes the land of the farmers so that they can get good farm produce in every season. Natural farming also supports good breeding practices for cows and care for their health.

Due to inflation, the polluted city environment, Covid and other factors, people don't want to live in congested urban areas. Through natural farming, farmers are getting a good price for their produce. Their income is higher than the income of those engaged in chemical crop production. With natural farming, farmers have negligible farming expenses and get double the income. The new generation of farmers is being motivated to pursue natural farming at a time when farming expenses are low and income is good. I am confident

that the rural economy will accelerate again in the near future. The native cow whom we call mother will be the mother of natural farming in the times to come and will give a new direction to the rural economy

### FINANCIAL ASSISTANCE FOR NATURAL FARMING

● In kharif season Rs 5000 per hectare is given for a family engaged in natural farming, In the summer season Rs 5000 per hectare is given. A total of Rs. 10,000 per hectare per annum higher financial assistance is given. For Organic Certification and Marketing purpose provision of Rs 31.51 crore has been made.

● As a result of this scheme, 13009 farmers have got benefited and Rs 6.81 crore has been paid.

● Thus, plans have been made to expand the scope of natural farming in Dang district and good results are being obtained.

● In addition, work is underway to link natural farming farmers with FPOs across the state. A total of 84 FPOs have been started in 33 districts at present. In addition, more than 300 farmers engaged in natural farming have joined each FPO.



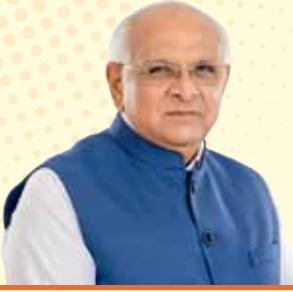
I am confident that the rural economy will accelerate again in the near future. The native cow whom we call mother will be the mother of natural farming in the times to come and will give a new direction to the rural economy

● Through the FPOs, farmers are now able to send their produce to the state as well as across the country for sale.

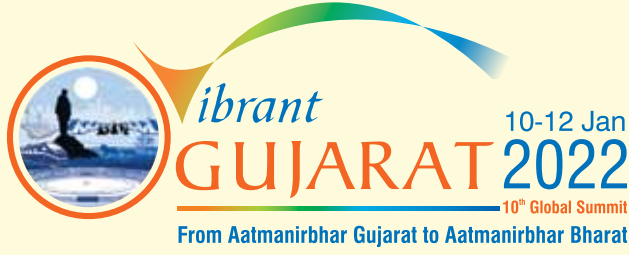
● In order to make the natural agricultural products easily available to the citizens in the state, the state is planning to start natural farming stalls in every district and sell the natural farm products of millions of farmers directly to the customers. The first natural farming stall has been started in the capital Gandhinagar, which has received a very good response from the citizens. More farmers have to join this store to meet the demand for natural farm produce here. Thus, all the schemes related to the sale of natural farming and its products have been started by the state government. We have started getting good result for them.







**Shri Bhupendra Patel**  
Hon'ble Chief Minister, Gujarat



**Shri Narendra Modi**  
Hon'ble Prime Minister, India

# 10<sup>th</sup> VIBRANT GUJARAT GLOBAL SUMMIT 2022

From Aatmanirbhar Gujarat to Aatmanirbhar Bharat

Inauguration by  
**Shri Narendra Modi - Prime Minister, India**

**10 11 12** JANUARY, 2022

MAHATMA MANDIR, GANDHINAGAR, GUJARAT

"Gujarat has always been the hub of growth and development.  
'Aatmanirbhar Gujarat to Aatmanirbhar Bharat'  
strengthens our commitment towards the same."

**Shri Bhupendra Patel,**  
Hon'ble Chief Minister, Gujarat, India

To register for the summit, visit: [www.vibrantgujarat.com](http://www.vibrantgujarat.com)

**Thematic & Sectoral Seminars**

**Global Trade Show & Exhibition**

**Country & State Seminars**

**Online & Onsite B2B / B2G Networking**

Parallel to the Summit will unfold 'VIBRANT GUJARAT GLOBAL TRADE SHOW 2022' from January 9 to 13 at one of India's Largest Exhibition Venue spread over 200.000 sq mtrs.

# NATURAL FARMING IS THE BEST ROUTE TO FARMER PROSPERITY



**MANISH BHARDWAJ**  
Secretary Agriculture,  
Farmers Welfare & Cooperation  
Government of Gujarat

**N**atural farming is the best choice to protect water, land, environment and human health. In the last two years, various activities have been carried out for the promotion of Subhash Palekar Natural Farming through the ATMA Project under the Department of Agriculture, Farmer Welfare and Co-operation of the state government.

\* One million handbills had been distributed at the village level by ATMA for the promotion of Natural Farming.

\* The book *Prakrutik Krishi* written by the Hon'ble Governor of Gujarat Acharya Devvrat ji has been extensively circulated among farmers. 4.5 lakh copies of the book were given to SPNF Master Trainers, Convener/Co-Convener, Gaushala-Panjrpol and other farmers.

\* In addition, a success story book of farmers engaged in natural farming has also been released.

## MISCONCEPTIONS AMONG FARMERS REGARDING NATURAL FARMING

Farmers have many misconceptions

regarding Natural Farming. There is a misconception that in natural farming, yield is reduced as compared to chemical farming. There is also the misconception that natural farming can't control pest & diseases. There is the misconception among farmers that high yield is not possible without applying fertilizers like Urea & DAP etc. They cannot figure out how plants get nutrition through Jivamrut & Ghan Jivamrut. We are consistently working towards removing these misconceptions among farmers.

## INITIATIVES TAKEN BY THE STATE

Many farmers do not have an indigenous (desi) cow. It is essential to have a cow in order to adopt natural farming. The state government has taken many steps to solve the problems of farmers to adopt natural farming.

- A one day mega workshop was organized on Natural Farming for 10,000 farmers & officers at Mahatma Mandir, Gandhinagar

- A seven days residential workshop was organized at Vadtal. It was telecast live in all districts through BISAG,





YouTube, Face book & DD National to prepare master trainers on the subject of natural farming. A total of 21,861 master trainers were prepared.

- These masters trainers had given two days training at 4,715 sessions to 1,72,032 farmers at the village level in the second phase.

- In the third phase, 3,795 trainings given to 1,04,615 farmers.

- Hon'ble Governor Acharya Devvrat ji interacted with the master trainers and also give guidance to 3,67,058 farmers through BISAG on E-Gram centers.

- Natural farming trainings have been organized at all the Krushi Vigyan Kendra (KVK) of the state.

- A seven-day residential workshop was organized at Trimandir, Adalaj in which 2500 trainees including officials and farmers participated.

### STEPS TO PROMOTE NATURAL FARMING

The government has launched schemes to support farmers who are willing to adopt natural farming. Annual subsidy of Rs 10,800 is given for the maintenance of desi cow. As part of this initiative, 1,05,000 farmers had been given subsidy of Rs 57.62 crore in the year 2020-21 and 1,97,750 farmers will get subsidy of Rs 213 Crore in the year 2021-22.

- Prakrutik Krushi Kit (Rs 1300 per kit) in the year 2020-21. A total of 42,364 farmers had been given subsidy of Rs

5.72 crore

100% natural farming in Dang district. Rs 31.51 crore are approved for 20,000 farmers which include subsidy, certification and market support.

### MARKETING LINKAGES FOR FARMERS

In the last two years, special publicity was carried out by the State Government for the expansion of natural farming. As a result two lakh farmers are currently practicing natural farming with the assistance for indigenous cow maintenance cost scheme. The main advantage of this method is the production is chemical free and the agricultural products are nutrient rich. It is expected that the prices of these farm products will be higher for which various publicity has been done as follows.

- Amrut Aahar Mahotsav was celebrated all over the state from 25/12/2020 to 31/12/2020 in which farmers sold their products directly to consumers. A total of 767 farmers through 516 stalls sold products of Rs. 48.64 lakh.

- Farm Fresh Festival was celebrated at Riverfront, Ahmedabad from 07/03/2021 to 09/03/2021 in which 74 farmers had participated. During the three days, more than one lakh people visited the festival and sold their farm produce of Rs 49.30 lakh directly to consumers.

- At Home program was organized at Raj Bhavan Gandhinagar on 15/08/2021 in which natural products were displayed and distributed to the visiting dignitaries for the purpose of increasing the demand for natural farming.

- To promote natural farming an exhibition cum sale were arranged at Army Campus - Chiloda, Coast Guard - Porbandar, Air Force - Chiloda, Border Security Force, Chiloda and CRPF campus, Chiloda, Gandhinagar where natural farming farmers' products were sold for publicity purposes.

- On 19/10/2021, the first store "The Natural Shop" under Natural Farming campaign was inaugurated by the Hon'ble Governor of Gujarat Acharya Devvrat at Sector 21, Gandhinagar. To increase the scope of natural farming and to impart more information, an exhibition was organized on 20/10/2021 and 26/10/2021 at Raj Bhavan, Gandhinagar in the presence of the Hon'ble Governor and Hon'ble Chief Minister and all the Cabinet Ministers and MLAs of the state.

- In order to get higher prices of agricultural products produced by natural farming system, Gujarat Agro Industries Corporation had given target of 100 FPOs. Among them 84 FPOs have been set up in 33 districts of the state. These FPOs will sell their products in 46 Gram Haats of the Rural Development Department.

## NATURAL FARMING

# KAAM EK LAABH ANEK

**F**or so many years I had been heading the Organic Farming Cell of Bharatiya Kisan Sangh. Our constant stress was that farmers don't get the right value for their produce. For years, I had been observing that farmers are always paid lower than what they deserve. We would bring up this issue again and again in our meetings and discussions with the government. Again and again, farmers demanded the right price for their crop, for their effort. But we farmers were always told that nothing can be done. Our input costs went on increasing. But even though we spent so much on getting a good crop, the earnings were poor. We could barely cover our investment and returns were always low. We were caught in this vicious circle. We could only do farming but there was no profit in farming. We



could not see any solution.

Then I found out about natural farming and the multiple benefits to



**PRAFULBHAJI SENJALIYA**  
Chief Coordinator  
SPNF Parivar, Gujarat

The support provided by the Gujarat government has played a very major role in motivating farmers to adopt natural farming. All this has been possible because of the untiring efforts of Gujarat Governor Acharya Devvrat. He has galvanized the entire state machinery to promote natural farming. This is transforming agriculture in the state



the farmer, the soil, the environment. I realized that this is the only solution which can save farmers. The support provided by the Gujarat government has played a very major role in motivating farmers to adopt natural farming. All this has been possible because of the untiring efforts of Gujarat Governor Acharya Devvrat. He has galvanized the entire state machinery to promote natural





key kharif crops including groundnut, besides horticulture and pulses. This brings down the input cost for farmers. It improves their margin and offers better profitability. Farmers are so relieved to finally find a technology which promises high yield along with low input costs. Farmers have been able to earn a handsome amount per acre even though their cost is as low as a couple of thousand rupees.

farming. This is transforming agriculture in the state.

The state government has taken many initiatives to promote natural farming. Last year, the state also announced monthly maintenance assistance of Rs 900 per indigenous (desi) cow for farmers who take up natural farming. Such initiatives have played a very major role in giving a new direction to the farmers. These initiatives are timely and encouraging support from the government.

In the past couple of years, we have seen many farmers using inputs from indigenous cow breeds. With such monetary support to farmers, the government has provided encouragement to farmers to have more indigenous cows. The Gujarat government had made provision of Rs 50 crore for the scheme, which was launched in June last year. Each farmer having at least one indigenous breed could qualify for the scheme.

The government has been serious in its approach of promoting SPNF. At the time of announcing this scheme, the government said that training from a master trainer in natural farming or other natural farming agencies is a must for the farmer.

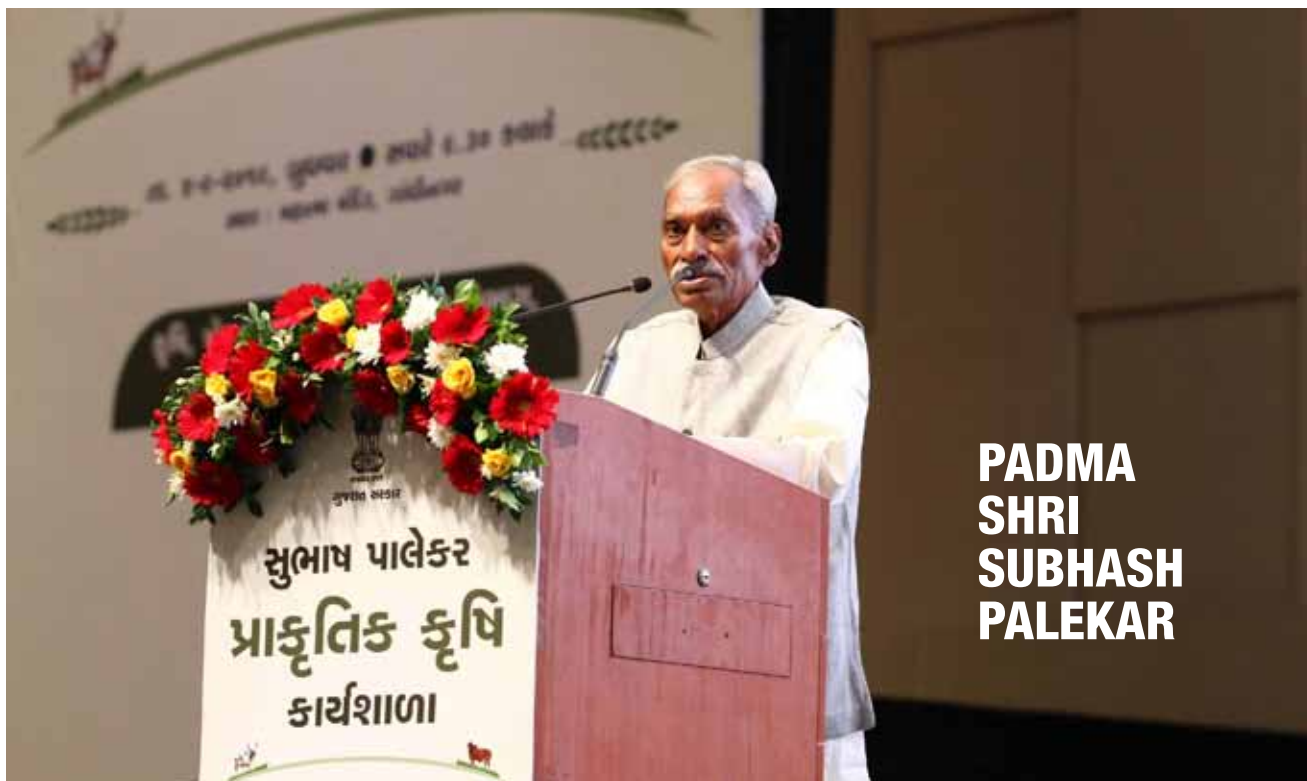
We are aiming to have farmers in each district of Gujarat owning indigenous cattle. We expect more farmers to join given the assistance extended by the state government. We have been training farmers about cow based natural farming.

The idea is to improve soil fertility using inputs from indigenous cows. Cow based farming is gaining momentum in

### Major points of the address of Shri Prafulbhai Patel at the Subhash Palekar Natural Agriculture Training Workshop organized from 26th November to 2nd December, 2021 at Trimandir, Adalaj

- Gujarat is always a leading state in the field of agriculture.
- Even today, when it comes to natural agriculture, our state is making rapid progress in this field in the country.
- As part of our movement to promote natural farming, ATMA organized training in natural farming system at this tri-temple for seven consecutive days from November 26 to December 2.
- In this program, a total of 2500 people have gathered here for training along with the officers of the State Agricultural University, the scientists of KVK, the officers of Krishi-Horticulture-ATMA as well as the farmer brothers and sisters.
- We are highly grateful to the Hon'ble Governor, who has been the driving force of the growth of natural agriculture in the state. The training program also was inaugurated by the Governor.
- In order to spread the word about natural agriculture, Shri Sai Ram Dave, who is the preacher of our natural agriculture, educated you all about the processes to be followed for this farming system.
- In addition, we have been here for seven days to get the benefit of the speech of Saint Pujya Kevalya Swarup Swami of Poicha Swaminarayan Gurukul which is a matter of great pleasure for all of us.
- He has been propagating and training farmers about natural agriculture in the state for a long time.
- I have come to know of many farmers who have immensely benefitted after getting involved in natural agriculture. Many farmers have become rich through natural agriculture. They are sharing our experiences with us so that other farmers can be encouraged.
- Apart from this you will also get the benefit of listening to Shri Som Tyagi ji, Teacher of Co-Existentialism on the subject, Living Life Fully and Joyfully. It will also deepen our realization that the work we are doing is a work of virtue.
- Thus for seven days in a row there will be brainstorming about natural agriculture in a completely natural agricultural environment. You all will be trained and in the times to come you will also become an instructor and train other farmers.
- In addition, our Dang district has now become a fully natural agriculture district. This was announced by the Hon'ble Governor in the recent program in the presence of the Chief Minister. I was also present at the program.
- Let us make the natural farming campaign a success and contribute to the development of the country.

# IN ACHARYA DEVV RAT, WE ARE SEEING HOW ONE LEADER CAN TRANSFORM THE SOCIETY





another way too. So many organizations nationally and internationally were offering support to farmers to switch to organic farming. But farmers are not ready. Those who shifted to organic farming found that it is not successful. It is more costly than chemical farming. It is harmful.

Modi ji is totally committed to Aatm Nirbhar Bharat. He has seen that the farmers prosper after they adopt natural farming. This is why the government is promoting the shift to natural farming.

We have organized giant camps in Gujarat to educate farmers about SPNF. Acharya Devvrat has played the most remarkable role in enabling farmers to realize the immense value of SPNF and make the shift.

When Acharya Devvrat became the Governor of Himachal Pradesh, he extensively promoted SPNF there. He made it his aim to transform agriculture in Himachal Pradesh. Acharya Devvrat is working for a developed and prosperous India. He is willing to take any initiative to transform Indian technology and Indian agriculture. He is doing a fantastic job.

It is not incumbent upon any Governor to take new agriculture technology to farm level. It is not incumbent upon any Governor to transform the society. But Acharya Devvrat is working steadfastly to achieve his goals for India and the world. He wants to end the pain, the poverty faced by the world. He works day and night, goes all around the state



Because of Acharya Devvrat, Gujarat is emerging as a role model for natural farming. In him, we are witnessing how one leader can transform the society, how one Governor can change the system

to encourage farmers to shift to natural farming. He is not bothered about sun, rain, cold, heat.

How much transformation can a Governor bring about? You go to Himachal Pradesh. You go to Gujarat. You will come to know. Acharya Devvrat is working 24X7 with the farmers and the state team.

The Gujarat government is working hard to make the farmers prosperous. Aatm Nirbhar Bharat. This is the first time that a Prime Minister has given such a bold slogan for our country. The entire state machinery has committed to the task taken up by Acharya Devvrat.

Modi ji wants to transform the entire farmers' community and the entire national economy. The only way is to make it possible is by making it a mass movement. Gujarat has been able to make good progress in natural farming because Acharya Devvrat is consistently working for the cause. He interacts with the masses. He interacts with the farmers. He has galvanized the entire state. Because of him, awareness regarding the benefits of natural farming has multiplied.

Climate change and natural calamities impact chemically grown crops badly. SPNF makes the crops climate resistant.

Because of Acharya Devvrat, Gujarat is emerging as a role model for natural farming. In him, we are witnessing how one leader can transform the society. One Governor can change the system.

Even in his personal interactions, he is always talking about how to make India grow? How to make the farmers prosperous? What should be the roadmap? These concerns are constantly on his mind. *Unhe lagan lagi hai.* We need many many Acharya Devvrat all over India to make our country progress.



# GUJARAT'S AMUL A GLOBAL MODEL IN DAIRY FARMING

**T**he dairy cooperative movement inspired by Amul, covers village level dairy cooperative societies in 190,516 villages across India, with 16.9 million farmer families as members, handling 50 million litres of milk every day. These are constituents of nearly 222 district level milk producer's cooperative union in India, each with at least one dairy factory, with the mandate of processing and adding value to milk collected by village level dairy cooperatives. At the apex level, State-level cooperative marketing Federations were created in 28 states of India, each with its own brand with clearly defined mandate of handling marketing, sales and distribution on behalf of district cooperative unions within their state.

Amul cooperative movement eliminated middlemen in the value-chain, thereby protecting Indian farmers from any form of economic exploitation. This ensured that our farmers retain control over the entire value chain and that as much as 80% of consumer's rupee flows



Mr RS Sodhi, Managing Director, AMUL

**Amul**

back to the farmers.

In 1950's, milk production in India was only 17 Million MTs and we were heavily dependent on import of dairy products to fulfill demand in this country. Till 1970's, per capita milk availability in India was only 110 gm per day, much less than the minimum level of 275 gm per person per day, prescribed by WHO for optimum nutrition. Thanks largely to the 'Operation Flood' inspired by Amul model, milk production in India has now reached 198.4 Million MTs. Since 1998, India has been the largest milk producing nation in the entire world. Despite rapid increase in population over the last 75 years, we have also succeeded in enhancing per capita milk availability to the current level of 407g per day.

## 2021: A Milestone For Amul

The year 2021 marks another major milestone in our history, since along with





75th anniversary of Amul cooperative movement, we are also celebrating the birth centenary of our legendary founder-leader, Dr. Verghese Kurien. For the six decades that Dr. Kurien led Amul cooperative movement, he built a strong foundation went a long way towards ensuring longevity and success of Amul. If Amul has achieved the status that it has today, it is because of our staunch belief in the values of integrity, honesty, courage, dedication, commitment to farmers and to consumers, as well as commitment towards excellence, which Dr. Verghese Kurien had instilled in the organization.

Leveraging on the strong foundation built by Dr. Kurien, GCMMF (the apex dairy cooperative of Gujarat which markets milk products under Amul brand) is today, the largest food organization in India, currently, with a group turnover of US\$ 7.3 Billion in 2020-21. GCMMF handles 29 million of Milk on a peak operating day. 3.6 Million farmer families, spread cross 18,563 village-level dairy cooperative societies and 18 district-level Milk-Producers Cooperative Unions, in Gujarat, are part of GCMMF family. We have 87 dairy manufacturing plants with a total milk handling capacity of 39 million litres per day.

Amul has succeeded in gaining trust and faith of Indian consumers, because we delivered what we promised – consistently. One of the key challenges faced by an organization which is celebrating its 75th anniversary is that every few years, there is a new generation of customers joining the mainstream economy. Their behaviour, preferences and lifestyle choices may differ significantly from their parents and grandparents. We strive to ensure that our brand is able to connect with every new generation of consumers. We had to evolve continuously, to remain relevant and useful to society. We had to anticipate technological changes and societal trends. Over the years, we have worked on transforming our product portfolio, anticipating evolving consumer preferences. Through a

### AMUL's Twin Operating Philosophies

At Amul, we have twin operating philosophies: (a) "Value for Many": Ensuring maximum remuneration to our farmers for the milk poured by them. Our farmer-members have the assurance that their cooperative will take every drop of milk they wish to give, that too, at the maximum possible price. Not only that, almost 80% of the consumer's rupee will flow back to the farmers, quite unlike countries like US or even Europe, where farmers get between 35% to 40% of consumer's dollar. (b) "Value for Money": This is our promise to Indian consumers. Highest quality of milk and milk products, delivered at the most fair and reasonable price.



**Amul cooperative movement eliminated middlemen in the value-chain, thereby protecting Indian farmers from any form of economic exploitation. This ensured that our farmers retain control over the entire value chain and that as much as 80% of consumer's rupee flows back to the farmers**

series of marketing initiatives in digital and conventional media, we have been striving to enhance our youth connect.

Innovation has always been integrated within the DNA of Amul. Our product innovations and also innovative brand communication campaigns have always been appreciated by consumers. We have taken giant technological leaps ahead in leveraging on information technology and automation across our entire value chain.

In the year of Dr. Verghese Kurien's birth centenary, I recollect his immortal quote which has inspired generations of leaders and professionals, associated with the Amul cooperative movement "We have traversed a path that few have dared to. We are continuing on a path that still fewer have the courage to follow. We must pursue a path that even fewer can dream to pursue. Yet, we must, we hold in trust the aims and aspirations of our countrymen."

# IF PROPERLY EXECUTED, **NATURAL FARMING** CAN BECOME SECURE PART OF INDIAN AGRICULTURE



**DR RM CHAUHAN**

Vice Chancellor  
S.D. Agricultural University  
Saradarkrushinagar, Banaskantha,  
Gujarat

**N**atural Farming has its own benefits and drawbacks, although if properly executed it will become a secure part of Indian agriculture.

- Natural Farming is environment-friendly farming. Savings on cost of seeds, fertilizers and plant protection chemicals have been sizable. Continuous incorporation of organic residues and replenishment of soil fertility helps to maintain the soil health.

- Natural product made from farm resources utilized for nutrition and plant protection purpose helps the farmers to find other alternative method of natural farming especially for their self-

reliance (Atmanirbhar).

- However, owing to meager scientific evaluation of natural farming, it is premature to recommend its wide-spread adoption which may lead to massive loss to the farmers.

- Need to develop awareness among farmer for increasing the benefit cost ratio by reduced use of agro-chemicals and increasing the use of natural resources.

- Need to research work at



institutional level for scientific validation of components. It should be tested on a wider scale and on all soil types.

- Future attention should be given to meet the guarantee system that will ensure natural quality and allow consumer to develop their performance for natural products with feeling of trust.

- Government should address the crisis like increased labor cost in natural farming, by providing better produce price to the farmers.

- According to Natural Farming principles, crops get 98% of their supply of nutrients from the soil, water, sunlight, and air. Moreover, the remaining 2% can be fulfilled with lots of favorable microorganisms

- Soil microclimate: The soil always covers organic mulch, which forms humus and encourages good microorganisms.

- This farming system requires cow urine and cow dung obtained from





cows. One gram of cow dung contains about 1.5 to 5.8 crores of Total viable bacteria and about 0.1 to 8.0 crores of fungi besides many other microbes.

- Application of cow urine and cow dung in soil improves the physico-chemical properties of soil and also increases microbial population, organic carbon and mineralization and availability of large number of plant nutrients.

- But depending entirely on one agricultural approach is quite risky. More efforts are needed by the government for sustainable agriculture methods to find alternatives to only a cow-based natural farming.

### HON'BLE GOVERNOR ACHARYA DEVVRATJI'S CONTRIBUTION

It is important to acknowledge the immense work done by Shree Acharya Devvratji, Hon'ble Governor of Gujarat in the field of low cost natural farming and his untiring efforts for encouraging farmers to adopt low cost natural farming. We, the vice-Chancellors of Agricultural Universities of Gujarat namely, Dr. R. M. Chauhan (myself), Sardarkrushinagar Dantiwada Agricultural University, Sardarkrushinagar, Dr. K. B. Kathiria, Anand Agricultural University, Anand; and Dr. Z. P. Patel, Navsari Agricultural University, Navsari visited the Gurukul at Kurukshetra to see the processes involved in natural farming. We observed the standing crops of Paddy and Sugarcane and horticultural crops and also saw the management of desi cows at the modern Livestock farm of Gurukul. Adoption of low-cost natural farming will on the one side reduce the cost involved in farming by using low cost inputs and on the other side may results greatly towards conservation of soil and its fertility, conservation of biodiversity, availability of high value organic products and most importantly conservation of native livestock.

Is natural farming is a practical solution to address the food security?

Persisting world hunger has demonstrated that agriculture alone (be it conventional or not) cannot solve



It is important to acknowledge the immense work done by Shree Acharya Devvratji, Hon'ble Governor of Gujarat in the field of low cost natural farming and his untiring efforts for encouraging farmers to adopt low cost natural farming

food insecurity. Still, many questions are asked with regards to the ability of natural farming to provide food - and many speculations are made, without any comprehensive data basis.

Food security is not only a question of the ability to produce food, but also of the ability to access food. Global food production is more than enough to feed the global population; the problem is getting it to the people who need it. In market-marginalized areas, Natural farming farmers can increase food

production by managing local resources without having to rely on external inputs or food distribution systems over which they have little control and/or access. It is to be noted that although external agricultural inputs can be substituted by management of natural resources, land tenure remains a main constraint to the labour investments needed for natural farming. Natural farms grow a variety of crops and livestock in order to optimize competition for nutrients and space between species: this results in less chance of low production or yield failure in all of these simultaneously. This can have an important impact on local food security and resilience.

In fact, many multiple cropping systems, such as those developed by small holders and subsistence farmers, show higher yields in terms of total harvest per unit area. These yield advantages have been attributed to more efficient use of nutrients, water and light and a combination of other factors such as the introduction of new regenerative elements into the farm (e.g. legumes) and fewer losses to pests and diseases.

Natural farming is likely to reduce soil degradation and could provide yield benefits for low-input farmers. In higher-input systems, yield penalty are likely. Further research is needed to be continued and strengthened on higher-input systems to ensure that mass conversion to NF does not limit India's capacity to feed itself.

# THE GOVERNMENT IS COMMITTED TO SUPPORT AND ENCOURAGE NATURAL FARMING IN THE STATE



**SHRI MAHESH SINGH**

Managing Director  
Gujarat Agro Industries  
Corporation Ltd

**Sir, please share with us, the measures that are being taken by the corporation for the promotion of processing at micro level with the help of technology.**

Micro level enterprises are being supported by handholding from the Central Government and State Government through various schemes. The main issue faced by micro enterprises is lack of formal structure which hampers the availability of credit and other formal facilities. The Centre Sponsored scheme Prime Minister Formalization of Micro Food Enterprise (PMFME) has the objective of formalization of informal enterprises and handholding support of them for dovetailing of resources preparation of DPRs and sanctioning of loan from formal financial institutes. PMFME scheme is also significant as it covers branding and promotion services of micro enterprise which is major hindrance for any non-formal enterprise.

**Please elaborate on the corporation's plan to encourage the setting up of micro and mini food processing parks at taluka/village clusters.**

As agro and mini food park is not financially viable to reach the last mile

due to requirement of vast contiguous land and huge capital requirement, the Corporation has proposed to launch mini agri estates. These will be less capital intensive and will provide overhaul agro processing and primary services at taluka/village level.

**Please elucidate the steps being taken by the corporation to provide appropriate forward linkages to farmers to reduce wastage and improve the availability of nutritional good for domestic markets and exports.**

For forward linkages and to provide the domestic and export market, policies such as the Agri Export Policy in line with the Centre's Agriculture Export Policy are under consideration of the state government. In addition, Government of Gujarat is dedicated to provide direct markets for farmers in urban cities.

The state has launched the scheme of hangers (infrastructure development) so they can directly sell to consumers and fetch higher prices for their produce. The scheme can boost Prime Minister Shri Narendra Modi's vision of doubling farmer's income by 2022. Comprehensive Agro Business Policy (CABP), launched by Government of Gujarat has also been



instrumental in providing processing facilities and thereby reducing wastages.

**Please tell us of the steps taken by the corporation for gap analysis for availability of the infrastructure for potential crops/ cash crops of Gujarat.**

Minister of Food processing Industries (MOFPI) has conducted Gap Analysis of various horticulture crops in Gujarat under Operation Green. The crops included are perishable crops such as pomegranate, banana mango etc. In addition to the above, GAIC has conducted a gap analysis study. We are preparing a report for gaps in Kutch cluster for Mango in all the verticals namely pre-harvest and production, post harvest and value addition, logistic marketing and branding. The report is part of Cluster Development Program, and the same is submitted to National Horticulture Board (NHB).



**Sir, what would you like to say about the corporation's role in gap analysis for availability of crop infrastructure for potential crops/cash crops of the state of Gujarat.**

The Government of India has launched Formation & Promotion of FPO, Agriculture Infrastructure Fund scheme to support farmers/ FPOs to develop farm gate infrastructure. GAIC is the implementing agency for the scheme.

GAIC is also providing incentives under CABP for agro and food processing industries. GAIC is creating infrastructure at four major cities of the Gujarat to provide direct market to farmers.

**Please throw some light on the corporation's efforts to maximize the state's potential cash crops and improve farmers' income.**

GAIC organized the Farm Fresh Festival at the Riverfront, Ahmedabad in the month of March to promote the Mango and its value added products and to spread the benefits of the fruit. In addition to this organized Kamlam Farm Fresh



Festival was organized at Karnavati Club, Ahmedabad in the month of October to promote the Kamlam fruit and its value added products and to spread the benefits of the fruit. The festival was attended by Kamlam cultivators from Gujarat and consumers from Ahmedabad and other parts of Gujarat.

**Please tell us about the measures being taken by the corporation to provide good quality organic and fresh fruits and vegetables to consumers at low cost.**

The state government has certified Dang as an organic district. The government is committed to support and encourage natural farming in the state. FPOs are being promoted by the government to focus on natural farming and products.

GAIC has established Hi-Tech Potato Cold Storage at Deesa, Banaskantha with storage capacity of 5,000 MT. GAIC is running facility and produce Liquid bio fertilizer at Naroda, Ahmedabad. GAIC has sold 98,917 liters Liquid bio fertilizer in FY 2020-21.

**Please tell us whether the corporation has any specific plans for the handholding and strengthening of Farmer Producer Organizations (FPOs).**

Under the Central Sector Scheme of Formation of 10,000 FPOs, Gujarat Agro Industries Corporation Ltd has been appointed as the implementing agency. GOI has allotted the target of formation of 180 FPOs during the FY 2021-22. Out of this GAIC has registered 85 FPOs.



# AGRICULTURE TECHNOLOGY MANAGEMENT AGENCY (ATMA)

## AIM OF ATMA

## THE PROSPERITY OF FARMERS

- ATMA is an independent registered society
- ATMA project is implemented at district & village level by Project Director.
- Farmers can join ATMA by forming a FIG (Farmers Interest Group) and get benefits of the ATMA scheme.
- Farmers can become prosperous by adopting improved farming practices. This can enable them to achieve higher production and also minimize the cost of cultivation.
- There is more than 33% women participation in ATMA activities.
- Farmers are linked with Agriculture & allied departments, SAUs, KVKs, NGO, Private sector etc.
- To join with ATMA, farmers can contact Project Director, ATMA at district office, Farmer Training Centre.



**Dr Dharmik V Barot**  
Director ATMA

- Minimum 10% beneficiary contribution
- Bottom up planning
- To extend agricultural extension education activities and new research to the farmers as per their requirement

- Decentralization of power so that farmers can take whatever decisions they want with their own participation
- Broad-based extension delivery (FSA)
- Group approach to extension – FOs & FIGs
- Gender concerns – Minimum 30% allocation
- Convergence of line departments – gap filling mode
- Multi agency extension strategies – encourage private sector (minimum 10% allocation)
- Sustainability of extension services – Minimum 10% beneficiary contribution
- Bottom up planning
- Coordinating all government, semi-government, non-government, commercial farmers associations as well as departments like agriculture, horticulture, animal husbandry, fisheries involved in agricultural development

### OBJECTIVES

- Sustainability of extension services



## HOW TO GET BENEFITS OF THE SCHEME

Under the ATMA scheme, Farmer's Interest Groups (FIGs) of 11-25 farmers are formed. These FIGs are registered through the Project Director of respective district. A registration fee of Rs. 250 per group is charged. Registration can be done by collecting Rs. 10 per member. Information regarding registration of FIGs can be obtained by contacting Farmer's friend, Block Technology Manager or Subject Matter Specialist.

## ACTIVITIES OF ATMA

### 1. FARMER'S INTEREST GROUP (FIG)

To join ATMA and also to take benefits of all ATMA activities, farmers can form Farmer Interest Groups (FIG). Farmer's Interest Groups are created at village level to meet the need based agricultural requirement of farmers. Different activities with FIGs are held in association with various public organisations, private organisations, NGOs, Para-extension workers and other agencies associated with agricultural development.

Year	FIG Group	Male Farmers	Female Farmers	No of Group Members
2007-2021	57064	550480	253247	803727

### 2. TRAINING TO FARMER

Within district, within state and out of state trainings are organised on agriculture and allied subjects to improve knowledge and skills of farmers.

Year	No. of Activities	Male	Female	Total Farmers
2007-2021	22871	877757	446128	1323885

### 3. EXPOSURE VISIT

On concept of "Seeing is believing", farmers can be motivated to take up initiatives, if they are exposed to new technologies. With this aim, exposure visit at outstate, within state and within district are organized under the ATMA scheme.

Year	No. of Visits	Male	Female	Total Farmers
2007-2021	9870	520496	278405	798901

### 4. DEMONSTRATION

Demonstrations covering various aspects are held on the farmer's field to give practical knowledge and for adoption of new released varieties and technologies developed by SAUs which is work on "Seeing & doing is believing".

Year	No. of Demonstration	Male	Female	Total Farmers
2007-2021	464712	324653	140686	465339

### 5. EXHIBITIONS /KRUSHI MELA

Various Exhibitions and Krushi Melas are organized at district and state level to bring awareness amongst farmers regarding new technologies, innovations & make them aware about government schemes.

Year	No. of Krushi Mela	Male	Female	Total Farmers
2007-2021	57064	550480	253247	803727

### 6. FARMER -SCIENTIST INTERACTION & KISAN GOSHTHIS

Interaction is organized between agricultural scientists and farmers to provide a platform to farmers for discussion on various problems faced by them. Farmers have interactions with the agricultural scientists in the field at Kisan Goshthis. These are organised under ATMA with the aim of bringing awareness among farmers and facilitate discussion with progressive farmers regarding the new research done by scientists.

Year	No. of Farmer -Scientist Interaction	Male	Female	Total Farmers
2007-2021	863	71547	26811	98358
	KISAN GOSHTHIS	Male	Female	Total Farmers
	6886	579773	156090	735863

### 7. FARM SCHOOL

With a view to replicate the proven farming technologies, farm schools have been included in ATMA scheme. These are organized on the nearby farms of progressive farmers. Farm school is in formal school where teachers and students - both are farmers. On "Seeing & harvesting is believing & adopting" concept in Farm School demonstration, the-

Year	No. of Farm Schools	Male	Female	Total Farmers
2007-2022	10172	225822	115536	341358

ory and practical sessions are arranged to the benefits of farmers.

### 8. BEST ATMA FARMER AWARD

"Best ATMA Farmer's Award" under ATMA scheme is given to farmers to appreciate and encourage the progressive and innovative farmers at state, district and block level.

Year	State Level	District Level	Block Level	Total
2007-2021	61	607	2972	3640

### 9. AGRICULTURAL LITERATURE

Literature covering various subjects of agriculture and allied activities also published and distributed to the benefit of farmers under ATMA scheme.

### EXTENSION THROUGH MEDIA IN ATMA

- 397 programmes of Phone in Live "Kheti ni vat Khedut ne saath" was telecast on Vande Gujarat channel of the Government of Gujarat on various subjects of Agriculture and allied sectors.
- Publish & distribute 4.50 lakh copies of book on "Natural Farming" & 10 lakh handbills.
- Create success stories of award winning farmers & distributed 1 lakh copies
- Prepare 408 E-Tech packages
- Published in-house ATMA NEWS LETTER
- 71,74,062 text messages sent to farmers on schemes of Agriculture & allied sectors, weather forecasting etc to provide subjects specific information
- Create awareness of ATMA activities by use of Social Media like TV/Fb/WhatsApp
- Set up Community Radio Station at KVK Kodinar

# 'WE WANT TO FORM A CONSORTIUM LIKE AMUL AND CREATE A MEGA BRAND'



**DIXIT BABULAL PATEL**

State Coordinator  
SPNF Parivar, Gujarat



**A**mul has formed such a large global brand through the cooperative movement. We want to achieve the same in farming. We shall undertake this ambitious product with the state government. Our products shall be branded and marketed like the Amul model.

We will take the support of the cooperative sector in order to build this brand. Home Minister Shri Amit Shah has given a call that the cooperative sector must come together to make all such grassroots movements successful. It is the dream of Prime Minister Shri Narendra Modi ji that the income of the farmers must double. We are working on the blueprint of forming a consortium. By organizing farmers in this way and getting the right market for their produce, their income will not just double. It shall increase three or four times.

We have been able to see this grand dream and build on it only with the support of the government. The government has provided handholding, and this support

is of immense value. Within three years, the farmers will become totally self-reliant and they will become prosperous also.

This is a very ambitious project and we can achieve it. The idea has come from the Prime Minister when he announced the formation of 10,000 FPOs. The government is also supporting the FPOs for three years. It is sufficient time to make the FPOs self-reliant.

## **GOVERNMENT SUPPORT IS VITAL**

SPNF has been successful wherever it has been taken up by the farmers. In Gujarat, natural farming is highly successful because the farmers are being guided for it. It is a Central government project to support the farmers for natural farming. At the same time, the Gujarat government has also given us strong support.

I remember the brilliant advertisement for Kutch Tourism by Shri Amitabh Bachchan. It was the initiative of Shri Narendra Modi. Shri Amitabh Bachchan would appear in that ad campaign. Every time he would say, "Aap ne Kutch nahin



dekha to kuch nahin dekha. Kuchh din to guzaro Gujarat mein.” With that campaign, tourism in Kutch took off.

The government drawing up plans so that the FPOs can have financial stability. The government is moving with us on this. The government is strengthening our efforts. This is how we are going to prosper with the SPNF model. FPOs are being made so that we can launch the cooperative movement and follow the Amul model.

### VALUE ADDITION, MARKETING

SPNF was being followed by farmers in Gujarat for last many years. They were pursuing this method of farming and gaining good result. In 2016, the SPNF movement in Gujarat got a major boost. We organized a mega camp at Gandhi Nagar in August 2016. About 3200 farmers from all over India participated in the mega camp. The farmers were motivated to try SPNF.

In order to encourage the farmers to adopt natural farming, the next mega workshop was organized at Rajkot in February 2017. This was a five-day residential workshop. About 1800 to 2000 farmers participated in this workshop. Most of the farmers in this workshop were from Gujarat.

To further motivate the farmers to adopt SPNF, a third mega workshop was organized at Vadodara in May/June 2017. About 2000 farmers were present at the workshop. The majority of the

### OUR THREE MAJOR OBJECTIVES

1. Train farmers in natural farming.
2. Organise the reach of the natural farming produce to the end user, and connect farmers to consumers
3. Gaon ka paisa gaon mein, shehar ka paisa gaon mein. The capital of the village should stay within the village. Also, there should be capital inflow from the city to the village.

Till now, the village capital has flowed to the city. And from the city, the profits are made by mega companies and multi-national corporations, but the farmer does not benefit.

We have decided to follow those ways and means by which the farmer will benefit.

For this purpose, value addition is essential.

Our objective is that the natural famers should create their own brands. All the natural farmers of Gujarat in all the districts must get together. Then they can collectively set up small industries for agro processing

farmers were from Gujarat.

Then we organized the fourth mega workshop at Deesa, Banaskantha in January 2018. About 1800 farmers participated in this workshop. They had come from all 33 districts of Gujarat to learn about natural farming.

In order to make SPNF a mass movement, we organized a seven-day mega workshop in January 2019. At that time, Acharya Devvrat was the Governor of Himachal Pradesh. We invited him for this workshop as the chief guest. It was a very big initiative, and 11,000 farmers participated in this workshop.

Even while these mega camps were organized, we kept on organizing one or two-day camps on SPNF and trained about 25,000 farmers. All the farmers who adopted SPNF found that with this method of farming, their income went up two or three times.

At these mega workshops and in our personal interactions, we train farmers in how to follow the Subhash Palekar method of natural farming. Simultaneously, we also train them about how they can ensure value addition of their produce. We train them in how to do sorting, grading and packing of the agricultural produce. We train them in packing their produce efficiently and attractively so that the consumers want to buy their products. We also train the farmers in marketing. We train them in how to reach the end user.



# EFFECTIVE SEED MANAGEMENT SYSTEM VITAL FOR FARMERS' PROSPERITY

**E**ffective seed management system has very significant and vital role in the prosperity of the farmers. Seed is basic input in agriculture. In broad sense effective seed management system involves various operations like scientific seed production, post-harvest seed technologies, storage and supply-chain logistics. The post-harvest operations like sun drying or



**PRAKASHBHAI SOMABHAI RABARI**

Managing Director  
Gujarat State Seeds Corporation Ltd

artificial drying of seeds to reach at optimum seed moisture content will enhance shelf life of seeds. Seed is a living entity, so we have to be very careful and skillful for proper storage of seeds and protect it from storage pests for maintaining seed vitality and viability.

Also there should be well organized supply chain like seed distributors, dealers and affordable transport logistics to deliver quality seeds to farmers in rural areas and more often in remote areas. Efficient seed management system may encourage farmers to change seed every year for profitable crop cultivation. Seed replacement (to change seed every year) is very essential to increase crop productivity and quality of farm produce, which can increase farmers' gross income and alternately increase contribution of agriculture in national GDP.

● Effective seed management system should ensure the effortless availability



of quality seeds to farmers at affordable rates even in remote rural of areas.

● In the present situation, SRR (Seed Replacement Rate) of most of the self/open pollinated crops ranges from 18 to 45% like Groundnut, Soybean, Wheat, Paddy and Pulses etc. These are mainly high volume-low value crops. Our main focus is to increase SRR through effective seed management.

**Please tell us about the measures taken by the state of Gujarat for developing adequate storage facilities for storing quality seed in different crops.**

GSSCL has increased seed storage capacity from 1.3 lakh quintals to 2.31 lakh quintals in last five years by constructing new seed warehouses with novel designs that favour natural air ventilation and light. Construction of 1.1 lakh quintals seed storage capacity new warehouses in under progress. Thus we can have total seed storage capacity 3.41 lakh quintal in near future.

GSSCL is producing more than 2.70 lakh quintals of quality seeds every year and distributing it at reasonable rate to the farmers.

**Please tell us about the training being given to farmers in the state for seed production and post-harvest handling of quality seed in different crops.**

GSSCL regularly and periodically organizes on field training to seed producers for seed production and post-harvest handling of quality seed by involving our technical expert staff, research scientists of SAUs and other field officers of the Agriculture Department.

**Please tell us of the efforts being made by the state of Gujarat for the exploration of germplasm, collection for seeds of desi and indigenous varieties and crops.**

This task of exploration of germplasm, collection for seeds of desi and



indigenous varieties of various crops is done by scientists of State Agriculture Universities under the Government of Gujarat. These SAUs may introduce the newly collected germplasm to direct cultivation if they find it fit for commercial cultivation to farmers. Otherwise they can modify it through suitable crop breeding

programs to make it widely adaptable to the farming community by arranging multi-locational field trials.

Natural farming is sui-generis system of farming. Each farmer has his own unique system of natural farming depending upon availability of natural resources around his ecosystem. Each crop has its unique nutritional & nourishment requirement. Various Union and state government agencies/institutes organize training and visit programs for creating awareness about natural or organic farming. Accordingly, farmers can develop their own system of natural farming for seed crop by doing some minor modifications as per his farming skill and experience to obtain best seed quality & productivity.

Farmers can develop their own system of natural farming for each and every crop as per his skill and experience and availability of natural resources around its ecosystem.

**Please tell us about the intervention being made by the government for smooth registration and licensing for selling of certified seeds.**

This is the function of Directorate of Agriculture, Government of Gujarat. They perform their duties by following various inputs laws and orders issued by Government of India to ensure smooth registration and licensing for selling of certified seeds.



# SEWA STANDING UP FOR WOMEN



**T**he Self Employed Women's Association (SEWA), a member based organization with a steadily growing strength of over 1.7 million informal sector women across 14 States, has four decades of experience in empowering marginalized women and helping them improve their livelihoods through initiatives in capacity building, microfinance, market linkages and natural resource management. The largest organization of informal workers in the world, SEWA promotes the rights of low-income, independently employed female workers. Approximately 8,37,941 SEWA members are from rural areas and of these 7,75,050 hail from the agriculture sector.

The Indian work force largely functions informally – 93 per cent of all employed persons work in the informal sector, with women being more likely to be in informal arrangements than men. Founded by Elaben Bhatt, SEWA started working with these informal women workers in 1972 by collectivizing them under a national union.

Gujarat State Women's SEWA Co-operative Federation's history can be traced back to the struggle for workers' rights led by the SEWA. Since its inception in 1971 and recognition in 1972, the SEWA trade union has worked actively to promote the rights of women working

in the informal economy. But, alongside the struggle for rights was the existing need of the women to earn a livelihood. SEWA initiated several cooperatives for these workers, across sectors. SEWA believes that the cooperative model creates fair employment and decent work, accounting for the needs of women in the informal economy.

Building cooperatives across sectors also brought to the forefront the needs of women workers to efficiently manage the co-operatives and to access markets. At a meeting in April 1992, 900 women from various categories of co-operatives presented issues and problems of their trade to the Union Minister of Cooperatives. While the cooperatives belonged to different trades and services, they all needed a strong, cohesive force

that encouraged, catalyzed and led their growth: SEWA Federation was envisioned with this necessity in mind.

Currently led by Padmashri Reema Neenavati, SEWA oversees 4813 self-help groups (SHG), 160 co-operatives and 15 economic federations totaling 1.7 million members, pan India including 16 states, and also in 7 South-Asian countries, focusing on women's economic empowerment by building women owned enterprises – Cooperatives, Collectives, Companies, Federations; building women led supply chain in Energy, Agribusiness, Food Processing, Waste recycling, Textile and garmenting. Reema is being recognized across India and in the neighbouring countries as a champion of making livelihoods of the poor women reach markets they





deserve. Her effort has created a more dynamic local economy and fairer and equal society for thousands of women.

## SEWA AND AGRICULTURE

Women play major role in shouldering the responsibility of fulfilling the family's food and nutritional needs as well as in the Food systems – in production, processing, trading of food and in making decisions about consumption and purchase of food at household level. And yet their voices are barely heard. Therefore, SEWA's approach has been to treat farming as enterprise and women farmer as entrepreneur. Thus, value chain analysis approach has been taken under SEWA's agriculture campaign. Capacity building is one of the vital aspects in the value chain of the small and marginal farming. SEWA's capacity building program offers trainings to rural women at each stage of value chain starting from pre-seasonal to post harvest period. This knowledge helps these women farmers to venture into profitable farming.

SEWA also provides Agricultural advisory facility for mitigation of various risks associated with farming. SEWA has finalized 4 gaps and started using the voice message based mobile technology to bridge the gap of information regarding the following:

- Weather Prediction
- Crop Advisory
- Market Price of Commodity
- Government Schemes Related to Agriculture

## SEWA'S SUPPORTIVE SERVICES

Supportive services like savings and credit, health care, child care, insurance, legal aid, capacity building and communication services are important needs of poor women. If women are to achieve their goals of full employment and self-reliance, these services are essential. Recognising the need for supportive services, SEWA has helped women take a number of initiatives in organising these services for themselves and their SEWA sisters. Many important lessons have been learnt in the process



of organising supportive services for and by poor women. They provide these services in a decentralised and affordable manner, at the doorsteps of workers. Further, supportive services can be and are themselves a source of self-employment. For example, midwives charge for their services and creche workers collect fees for taking care of young children.

## SEWA ECOTOURISM

SEWA organized the land less women agriculture workers into a co-operative- the Vanlaxmi Women Tree Grower's Cooperative. They demanded and eventually received government revenue land. However, it was not an easy process as the existing disjoint laws in both departments led to a tricky struggle.

The cooperative consists of rural women who have gone from being landless labourers to leasing ten acre farmland. Through environmental regeneration and SEWA's initiative, they have turned barren wasteland into an eco-friendly destination for visitors of all ages.

The society was established after getting a 10 acre plot from the Village Panchayat on a 30 year lease in 1986. When the land was received it was covered with shrubbery, thorny cactii and infested with snakes and other poisonous reptiles. It took over three years for the women of the village to clear the land, till it and make it arable. One of the most important challenges faced by the women was that of social stigma. Their efforts were initially not taken seriously.

However, by the time 90% germination level was reached they had earned people's respect and today they are considered a legal distributor of seeds by the Gujarat State Seed Corporation.

For the past two years the farm is conducting eco-tourism for outside visitors. This is a new stream of revenue for the farm. The visitors enjoy the day in the calm and serene surroundings of the farm and enjoy the clean atmosphere. The trip starts from Ahmedabad. The tourists are welcomed by a traditional welcome ritual. This is followed by serving the guests breakfast and beverage. This is followed by a tour of the farm. A scrumptious lunch is served thereafter. The evenings are reserved for a local entertainment program followed by a trek back to the city. The entire trip costs Rs. 300/person without vehicle arrangement and Rs. 500/person with vehicle arrangement. The visitors comprise of foreigners, senior citizens, students and members of clubs etc.

The farm consists of a diversified eco-system;

- All the trees are cultivated here through organic methods.
- Several rich species of fauna can be found here including peacocks, baboons, mynah, and sparrows.
- The farmland runs ten acres in length and covers an area of four hectares. It also displays modern scientific methods of irrigation.
- Besides, in order to encourage afforestation, Neem tree has been planted over an area of 1 hectare
- Both horticultural and fruit crops such as Papaya, Pomegranate, Custard apple, Sapota and Lime are cultivated here over a net area of 25 hectares.

The land is now nearing the end of its 30 year lease period. Nevertheless, it continues to stand as a beacon of hope to all women hailing from similar social strata, as a testament to their hardships and struggle, leadership, self-esteem, unity and ultimately inevitable success. The farm consists of a diversified eco-system

## ANAND AGRICULTURAL UNIVERSITY

# WE HAVE DEVELOPED MANY CROP VARIETIES SUITABLE FOR NATURAL FARMING

**G**ujarat is taking a lead role towards natural farming, giving highest focus towards increasing farmer's yield by maximizing production factors (labour, soil, equipment) and by avoiding the use of chemical inputs (fertilizer, herbicides and pesticides) and thus optimizing net production potential; making available the abundant, high quality, healthy food at best price. Area of research for natural farming could be enormous in number; moreover the key line or say the golden rule must always set as to enrich the level of organic matter into the soil, which supports microbial life, and therefore soil's fertility. More specified areas/sub-areas of research on natural farming may be considered as follows with ample provision of local level fine tuning, integration, or differentiation across them.

Research is being conducted on basic principles of natural farming: like cow based farming, tillage aspects, irrigation management, sowing directions, intercropping, mulching, micro-climate, capillary action, indigenous earth worms, Gravitational power/force, cyclone and local seeds etc.

### DR KB KATHIRIA

Vice Chancellor  
Anand Agriculture University  
Anand

### Has the university released any new varieties that are suitable for natural farming?

Anand Agricultural University has developed many varieties of different crops which are suitable for natural farming. Out of them important are GAR 14 (Aromatics), GR 21 (medium slender grain with high Fe and Zn) and GAR 22 (long slender grain) of rice GAM 5 and GAM 8 (resistance against yellow mosaic virus) of greengram, GAU 4 (resistance against yellow mosaic virus) of blackgram, GAT 8 (High lycopene content) of tomato. There are suitable for natural farming as seeds of these improved varieties can be re-used by the

farmers from their produce.

### Are there any demonstration plots that the university is maintain for the farmers to visit and understand natural farming?

Research experiments on natural farming during Kharif and rabi season are continuing in the university. Farmers can visit these trials.

### What are the extension activities taken up by the University to propagate the idea of natural farming?

a) University and Directorate of ATMA had jointly conducted mega events on







natural farming at Vadtal, Near Anand during 5-11 December, 2019. More than 5000 farmers were participated therein. This event was also web telecasted via. ATMA functionaries in all the districts.

b) University has also conducted one day workshop for master trainer's on 13h February 2020, in which 5367 farmers were actively participated.

c) Every KVKs of the University has established Cow based natural farming demonstration unit and scientists of KVKs are also conducting trainning programs on natural farming for its large scale coverage.

### What are the changes that can be recommended for the teaching curriculum in the agricultural universities?

a) The need is to accommodate information on snapshots from around the world for such transforming agriculture via specified curriculum contents on sustainability as a goal for agricultural development including other multilateral efforts to promote such sustainability, importance of natural farming, innovative model and strategies, global, national and local stakeholders favoring such sustainable agriculture. It may remain concentrated on few vital but prevailing options/issues of Indian farmers. While designing the major objectives may be set as (1) To identify and measure the awareness and behavior of farmers and other local stakeholders towards agriculture driven environmental issues. (2) To find opportunities and actions to increase the demand of natural farming over chemical based conventional farming system (3) To recommend management policies on the basis of opinion of farmers and other local stakeholders for integration of environmental concern along with socio-economic concern in governmental policies.

b) In teaching curriculum, the experience of successful/awardee/innovative farmers needs to be included via their talk and operational visits of their fields.

SNo	Title of the Experiment	Location
1	Assessment of crop management modules in pearlmillet + blackgram - wheat + chickpea cropping system	Regional Research Station, Anand Horticulture Research Station, Khambholaj
2	Assessment of crop management modules in Maize + Soybean – Wheat + Chickpea intercropping systems	Tribal Research cum Training Centre, DevgadhBaria Hill Millets Research Station, Dahod
3	Assessment of crop management modules in okra + cowpea - cabbage + fenugreek intercropping system	College of Horticulture, Anand
4	Assessment of crop management modules in cotton + pigeon pea intercropping system	Narmada Irrigation Research Project, Khandha
5	Assessment of crop management modules in maize + soybean - wheat + chickpea cropping system	Agronomy Department, BACA, Anand

### Current Research Activities

- Organic Farming and Natural Farming
- Nutrient / Integrated Nutrient Management including micronutrients in different crops
- Irrigation management in different crops of middle Gujarat including research on micro irrigation
- Crop Improvement / varietal development in major crops for biotic/abiotic stress resistance
- Development of bio-fortified varieties of different crops
- Pesticide Residues and its related aspects.
- Biotechnology, Nanotechnology and Tissue Culture
- Bio-fertilizer & Bio Control
- Various plant protection measures against major insect pest, diseases and nematodes
- Hydroponics
- Post-harvest management/processing and value addition

## GUJARAT AGRI VISION

# A GLORIOUS FUTURE



**S**ituated on the western coast of India, Gujarat has many unique achievements of past that give strong hopes for leadership in the coming years. It is often described as the 'Growth Engine' and has the leadership for the Second Green Revolution which must be the Evergreen Revolution.

### UNIQUE FEATURES OF GUJARAT

- Gujarat achieved a growth of about 9.6% in a agriculture in the past few years
- Eight agro climatic zones
- Largest (1600km) sea coasts in India
- Enterprising people and progressive farmers
- Leading producer state for Cotton, Castor, Groundnut, Bajra, Pigeon Pea, Banana, Mango, Isabgul (Sylliam), onion, Potato etc.
- Rich varieties of farm animals and a strong dairy culture
- Leading farm input industries working closely with farmers
- Several emerging R&D based new generation Agri bio industries and start ups
- Five agricultural universities, and

a new organic farming university and several small and big research organisations as knowledge centres for the farmers

- Strong agriculture marketing, APMCs, Market Yards, Processing units and business centres
- Great cooperative culture and institutions of excellence such as AMUL have emerged as model institutions
- A VSAT based multi-commodity exchange
- Agri export zones: Mango, Onions, Vegetables, Sesame etc.

The most important feature is the enterprising and enthusiastic spirit of the people, especially the farmers and a great history as the base. The respected and proud position of farming community was summed up by Sardar Patel in the last century as "If anybody has a right to walk proudly on this earth, it is the farmer who grows food and feeds us!"

### AGRO VISION AND MISSION

In the beginning of this century, the Government of Gujarat took up a systematic exercise for formulating its agro-vision involving scientists, academicians, farmers, policy planners,



### ABOUT THE AUTHOR

Padmashri Dr M H Mehta is the Chairman of National Working Group on Eco-Agriculture of Indian Chamber of Food and Agriculture. He was earlier the Vice Chancellor of Gujarat Agricultural University and a key player in Agro Vision plan for the state. Currently he is the Chairman of The Science Ashram/Gujarat Life Sciences, Vadodara  
email : chairman@glbsbiotech.com



industries and NGOs. The detailed exercise and the vision documents became the guidelines for a large number of implementation programmes and action plans. This helped in all round growth.

In 2009, Dr APJ Abdul Kalam led a team to Gujarat and after a detailed study, noted "I notice that the agricultural growth rate of Gujarat state has been phenomenally at 9.5 percent per annum for the decade (2000-10). That is more than 3 times the 2.8 percent agricultural growth in rest of the country. ("Target 3 million" by APJ Abdul Kalam, Penguin-2011).

However, Gujarat should not rest on its laurels. The world trends are continuously changing, and so are the new technologies, new markets and socio-economic conditions. This plus climate change and the pandemic bring new challenges and opportunities. Perhaps a time for a new vision exercise is now! Gujarat is aware that "What got you here will not get you there!"

## KEY FUTURE TRENDS AND OPPORTUNITIES

We may expect some major changes in agricultural scenario for Gujarat, India and at international level.

1. Increased pressure for higher production with environmental focus.
2. Changing demand due to increase in incomes, globalisation and health and nutrition consciousness.
3. Demand for fruits and vegetables, dairy products, fish and meat will increase.
4. Greater demand for processed food.
5. Increased demand for eco-friendly bio inputs like Biofertilizers, Biopesticides (botanicals and microbials), bio composts (from farm and food wastes), bio stimulants and the growth of many R&D based enterprises.
6. Conversion of crop residue and agricultural wastes to value added bio composts using multi-microbial consortia (eg. Relife) will be taken

up in a big way to help improve environmental conditions and farm productivity. This together with eco-friendly bio inputs will substantially help improve farm productivity, reduce input costs.

7. Use of nanotechnology to enhance food quality and safety, efficient use of inputs for yield and nutrition management.
  8. Increased use of crop specific farm equipment, use of GPS technology, drones, sensors etc. will make farming more efficient and profitable.
- Urban agriculture and vertical farming will grow rapidly.
9. Remarkable increase in digital connectivity and market access. Government using digital technology for direct transfer of mainly and also sharing information about various supporting schemes.
  10. Retailing in agriculture will be digitalised with logistics and supply chain. Food items delivery at home will increase greatly.
  11. More organised work by governments and village communities, NGOs and Cooperatives for water resources, soil health, river rejuvenations, agroforestry etc.
  12. Coastal aqua-agro farms finishing and plantation units will be taken up in a big way by small and big communities and industries.
  13. Info tech revolution, new technologies and private investment in R & D will increase. Government efforts to rejuvenate the cooperative movement to address the problem of small holdings are changing face of agriculture in India.
- Many startups by educated young people show that they are able to understand the high potential in this sector.

Cumulative effects of technology over the next decades will change the face of agriculture.

## LOOKING FORWARD

There is huge untapped potential there in India's agricultural sector.

Ever increasing demand of food, new opportunities, various incentives given by governments for inputs, production, infrastructure, availability of cheap credit facilities for marketing & export production are attracting many individuals, big companies, startups and ventures to do a lot of investments on innovations, new ventures & business.

In the new vision, a Rainbow Revolution should be our dream. Such a rainbow revolution will have:

- Eco-friendly and sustainable agriculture
- Blue revolution: Seawater farming and fisheries
- Brown revolution: Making deserts and semi-desert bloom
- Black revolution: Biofuels
- Multi-coloured revolution: Horticulture and food processing
- White revolution
- Drop of water revolution: Water use efficiency for agriculture, i.e. more crop per drop.

All these revolutions can help to remove hunger and poverty, improve health, have cleaner and sustainable environment, minimize inequality and create new opportunities for a better and healthy world. It can transform India into a developed country and have leadership position in the world.

The future especially demands moving towards sustainable eco-agriculture for Evergreen Revolution. This means we need to promote Eco technologies which integrate the principles of ecology in technology development and dissemination. "We also need to promote the production and use of biologicals for sustainable agriculture and food security. We need the culture of Do ecology" (M.S. Swaminathan in the book 'Eco Agri Revolution'- M. H. Mehta – NIPA -2017).

Gujarat is in an ideal position to take the lead and be a model for Ecoagri Revolution which will also be the basis for the Rainbow Revolution. Most other states can also do well to take up such Vision and Mission approach for a quantum jump for a bright agricultural future.

# Farming with Nature

**DR SJ SOLANKI**  
Director, Agriculture



be reduced considerably breaking the debt cycle for many small farmers.

According to Palekar, as only 1.5 to 2.0 % of the nutrients are taken from the soil by the plant, there is no need to add fertilizers. These nutrients are provided by nature. However, the nutrients (Nitrogen, Phosphate, Potash, Iron, Sulphur, Calcium) which are present in the soil are not

in an available form for the plants. They first need to be transformed through the action of micro-organisms that are normally present in the soil. But the excessive use of chemicals has destroyed these micro-organisms. It is thus necessary to reintroduce them through natural methods like application of local cow dung which, according to Palekar, contains 3 to 5 million of such beneficial microbes. His researches show that local cow dung is the most effective compared to foreign cows (Jersey, Holstein). Only one cow is needed to cultivate 30 acres of land as one cow gives about 11 kilograms of

“The natural way of farming” or “do-nothing farming”, a concept that has been fast catching up in recent times replacing modern conventional agriculture, blends effortlessly along with the natural biodiversity of each farmed area. The system works by encouraging the complexity of living organisms—both plant and animal—that shapes each particular ecosystem to thrive along with food plants. It is essentially a closed system, without any human intervention

## **FARMING THE PALEKAR WAY**

Natural farming, as seen today, was originally promoted by agriculturist and

Padma Shri recipient Shri Subhash Palekar, who developed it in the mid-1990s as an alternative to the Green Revolution's methods that were primarily driven by chemical fertilizers and pesticides and intensive irrigation. He blames the rising cost of these external inputs as a leading cause of indebtedness and suicide among farmers. The chemicals present in the fertilizers and pesticides were interfering with the long term soil fertility reducing the yield and profit for the farmers. Without the need to spend money on these inputs — or take loans to buy them — Subhash Palekar believes that the cost of production could





dung per day and as only ten kilogram of local cow dung is required per month to cultivate one acre of land.

His farming method, however introduces a natural “catalytic agent” known as Jivamrit, to promote the formation of humus in the soil by encouraging the multiplication of micro-organisms that decompose the dried biomass of the soil and make it available as nutrients for the plants. The components of jivamrit are entirely natural: water, local cow dung, local cow urine, jaggery (sugarcane sugar), pulse’s flour and soil. About 200 litres of jivamrit should be sprayed twice a month per acre of land; after three years, the system is supposed to become self-sustaining. A similar mixture, called bijamrit, is used to treat seeds. This concoction is prepared using neem leaves and pulp, tobacco and green chillis which helps in pest management.

Mulching is an important component of natural farming as it creates micro-climate under which micro-organisms can best develop. Mulching indeed conserves humidity of the soil (therefore diminishing the need for irrigation), cools

it and protects its micro-organisms.

Multiple cropping is also promoted by natural farming as it is a good way to minimize the risks for the farmer who is able to enjoy continuity of yield throughout the year.

Natural farming strictly prohibits the use of Vermi compost, as it introduces the most common composting worm, the European red wiggler (*Eisenia fetida*) to Indian soils. He claims these worms absorb toxic metals and poison groundwater and soil.

### MYTHS AROUND NATURAL FARMING

It is a commonly held misconception that organic farming and natural farming are same. Many times these are used interchangeably. As suggested by name, in “natural farming” no artificial nutrients are added to the soil. The basic idea of this farming is to let grow crop in indigineous manner i.e, with their natural pace and natural manner without disturbing the ecosystem. Whereas in organic farming, organic manures, compost, vermicompost is used to supply nutrients and increase yield. Organic

farming is far more expensive than natural farming. Manures like bone meal, blood meal are very expensive and not easily available. A switch from inorganic to organic farming is a time consuming process. It will take about three years to convert a whole farm into organic with an initial palpable decline in yield. However, in natural farming, significant decrease will not be there and the conversion is possible from very first year.

Another widely held common misconception is that yields from natural farming are lower than chemical farming. However, when properly followed, yields in natural farming are, in the long run, far greater than those obtained by chemical farming. In horticulture crops, the effects are even better according to the practitioners of natural farming.

Another common misconception around natural farming is that it is not economical. But the truth is is quite different from this. Natural farming is far more economical than inorganic and organic farming. One indigenous cow can nourish about 30 acres of land which reduces the necessary of other costly inputs tilting the balance towards profit.

# Gujarat's Horticulture Revolution

**H**orticulture has emerged as one of the high potential sub sectors in agriculture. Being a supplier of raw materials to a significant number of agro based industries, horticulture offers good avenues for generation of employment opportunities both in rural and urban areas.

Traditional agriculture in Gujarat in the past decades is seen to branch into more remunerative horticultural crops. During the last 25 years, area under horticulture cultivation has tremendously



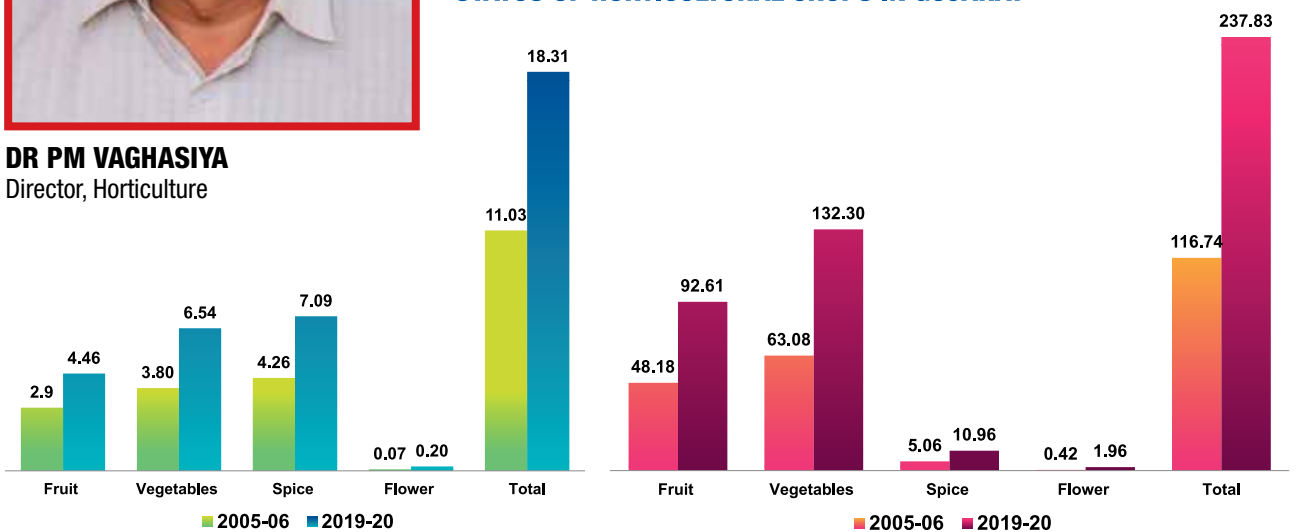
**DR PM VAGHASIYA**  
Director, Horticulture

increased by 381% (from Year 1994-95 -4.80 lakh Ha. to 18.30 lakh Ha. in Year 2019-20). Production too concomitantly increased by 552% (from Year 1994-95 – 43.06 lakh MT to 237.83 in Year 2019-20).

national fruit production. The share of the state in national vegetable and spice production is 6.65 % and 12.07 % respectively (Source: NHB data of Year 2018-19).

Horticulture crops occupy 16.16% area of the total cropped area in

## STATUS OF HORTICULTURAL CROPS IN GUJARAT



Area Increased in %	Fruit	Vegetables	Spice	Flower	Total
	154	172	166	286	166

Production Increased in %	Fruit	Vegetables	Spice	Flower	Total
	192	210	217	467	204





**Production of fruit crops is 92.61 Lakh MT. in which major crops are:**

- ▣ Banana (46 Lakh MT), Middle & South Gujarat Major Clusters
- ▣ Mango (12 Lakh MT), - South Gujarat & Saurashtra Major Clusters
- ▣ Sapota (3 Lakh MT), - South Gujarat Major Cluster
- ▣ Citrus (6 Lakh MT),
- ▣ Pomegranate (6 Lakh MT).



**Production of Vegetable crops is 132.30 Lakh MT. in which major crops are:**

- ▣ Potato (37 Lakh MT), - North Gujarat Major Cluster
- ▣ Onion (14 Lakh MT), - Bhavnagar & Saurashtra is Major Processing Clusters
- ▣ Brinjal (14 Lakh MT),
- ▣ Tomato (14 Lakh MT),
- ▣ Okra (9 Lakh MT)



**Production of Spice crops is 11.00 Lakh MT. in which major crops are:**

- ▣ Cumin (5 Lakh MT), - North Gujarat Major Cluster
- ▣ Fennel (1 Lakh MT)- North Gujarat Major Cluster

**Gujarat Horticulture Status @ National Level**

		Gujarat	India	% Share	Rank
Fruits	Area	422.40	6506.00	6.49	5
	Production	8996.02	97358.00	9.24	4
	Productivity	21.30	14.96		
Vegetables	Area	613.10	10259.00	5.98	7
	Production	12254.30	184394.00	6.65	5
	Productivity	19.99	17.97		
Spices	Area	567.00	3878.00	14.62	2
	Production	980.40	8124.00	12.07	4
	Productivity	1.73	2.09		

Area in 000 Ha., Production in 000 MT.

(Based on Horticulture at a Glance-2018)

192 % in Fruit crop production, 210% in Vegetable crop production, 217 % Spices production and a tremendous growth of 467 % in flower crop production

Besides, area and production, there has been rise in technology use in the state. Horticulture farming involves application of skill and technology to get higher production, for which government is giving emphasis on Skill development by establishing many crop specific Centers of Excellence (COEs) which imparts training on new technologies to farmers and farm labourers. Precision

Gujarat. Interestingly tribal areas have also emerged as important vegetable producing districts changing their identity of millets and minor crops. Tapi and Surat are hotspots for okra production and Navsari of cucurbitaceous crops.

In last 15 years, Gujarat has witnessed 154 % of growth in in area under fruit cultivation, 172 % in vegetable cultivation, 166 % in Spices and 286 % in Flower crop cultivation which makes around 166% of total growth achieved in area expansion of Horticulture throughout the State.

When the production of Horticulture crops of year 2019-20 is compared to year 2005-06, there is a growth of





### CROP PROFILE

Gujarat stands third in production of seed spice crops, fourth in fruit production, sixth in vegetable and seventh in flower production. The State is occupying second, fifth and seventh place in area of spices, fruits and vegetables respectively.

In individual terms Gujarat state leads in area of fruits crops like Papaya, Sapota and spice crop like Fennel. It is second in Pomegranate, Okra and Cumin and third in coriander and fourth in Brinjal and Garlic. In terms of production the state is first in Sapota, Okra and Cumin, while second in Papaya, Pomegranate and Banana. For Brinjal and coriander, Gujarat is third in production and fourth in Potato, tomato and Garlic. State has monopoly in production of Kutchhi dates.

Gujarat leads in productivity of fennel with highest productivity at national level. The state is second in productivity of Banana and Potato, third for Pomegranate and Cumin. At national level the productivity of garlic is fourth and that of papaya is fifth.

India has an almost absolute monopoly in global isabgol trade. Isabgol's processing industries are majorly developed in Gujarat giving it

farming is an important aspect for production enhancement and hence the department is providing financial support to various components in precision crop production system.

Horticulture produce being highly perishable in nature is prone to post harvest losses. To reduce this, the promotional activities and financial

assistance is given to the farmers on horticulture post harvest infrastructures like On-farm pack houses, Grading Sorting lines, integrated pack houses, cold storages, Mango and Banana ripening chambers, cold chain, integrated pack houses etc which can ultimately cause an increase of total crop production reducing post harvest losses.



status of monopoly in processing.

### DEPARTMENT OF HORTICULTURE, GUJARAT – CATALYST IN THE DEVELOPMENT OF HORTICULTURE

In 1991, a separate department for Horticulture was created to primarily increase area and production of Horticultural crops and thereby strengthen the sector. Simultaneously programmes to promote kitchen gardening and small scale processing and extending support to post-harvest management- processing, value addition, marketing and export promotion, also became the mandate of the department. Development of Arid Zone Horticulture, Extension Activities such as Training, Seminar, Exhibitions, Publication along with Development of costal line through coconut cultivation etc., also come under the purview of the department.

As production of horticultural crops is technology and skill driven, the Government is providing support on technological intervention and skill development through this department. With the increased irrigation potential in the state due to thrust on adoption of Micro Irrigation System, clusters of horticultural crops have been developed even in non-traditional areas. Hence, the area under cultivation of Horticulture crops and its production are continuously increasing in the state.

### SOME OF THE INITIATIVES OF THE DEPARTMENT

- High Density Plantation, Promotion of Hi-tech Horticulture, Rejuvenation in Old Orchard, Quality Planting Material, Assistance in Trellis “Mandap” as well as to Mulching, Export promotion
- Schemes for Women Empowerment with canning and kitchen garden training.
- Free Input Kits and assistance for Honey Bee farming ,Human Resource Development
- Knowledge & Skill Development – (CoEs)



In last 15 years, Gujarat has witnessed 154 % of growth in area under fruit cultivation, 172 % in vegetable cultivation, 166 % in Spices and 286 % in flower crop cultivation – around 166% of total growth achieved in area expansion of horticulture in the state

- Around 71 Lakh quality seedlings and plants have been produced and sale to the farmers.
- 48000+ farmers have been trained and about 85000+ farmers visited the demonstrations on these CoEs

Through government sponsored initiatives and strong input industries, Gujarat is scripting its own success story in horticulture. Significant progress has been made in the horticultural sector and the area and production of horticultural crops has been increased many fold in the state. The increased production of horticultural crops in the state has resulted in increased employment opportunities, reduced post harvest losses and increased farm incomes.

## NATURAL FARMING

# HEALTHY DESI COW IS A PREREQUISITE



**DR FALGUNI THAKAR**

Director, Animal Husbandry  
Government of Gujarat

**T**o overcome the ill effects of chemical based farming as well as organic farming, introduction of Subhash Palekar Natural Farming (SPNF), a concept suggested by Padam Shri Subhash Palekar, is a viable and sustainable option. As per concept, all essential as well as micronutrients required by the crop/plants are present in soil but are in unavailable form. Plant use nutrients from soil through mineralization and billions of microorganisms are available in soil for this job. But continuous use of chemical fertilizers and pesticides has reduced population of these useful microbes and need to be rejuvenated. Cow dung and urine of domestic Indian cows is good source of these microbes and its use has given promising results.

For harvesting the benefits of SPNF, healthy desi cow is a prerequisite.

To provide free of cost veterinary services to livestock at all the government veterinary institutions across the state, "Mukhyamantri Nishulk Pashu-Sarvar" scheme has been implemented from January, 2015. The objective of the scheme is to enable livestock owners to run the dairy farming more profitably and to avoid unfavourable effects on their livelihood.

"Mobile Animal Disease Diagnosis Laboratory" and "Ambulance van for Veterinary Polyclinics". Under Rashtriya Krishi Vikas Yojna; facility of 23 ambulance van for veterinary polyclinics

and facility of 17 mobile laboratory van for animal disease investigation have been established with an aim of creating mobility of animal health care. Well-equipped mobile disease diagnosis facilities for prompt and accurate diagnosis has played vital role effectively in containment of various diseases of zoonotic importance like Bird flu, Crimean-Congo Haemorrhagic Fever (CCHF), Glanders, Brucellosis, Rabies etc.

For immediate care and cure of ill, wounded, deserted animals; total 37 "Karuna Animal Ambulance-1962" have been made operational in the state with on call free services. This facility is one of





its kind for first time in India for treatment of orphan/ownerless animals. From launch in October, 2017 to till date, more than 3.50 Lakhs treatment have been provided by these ambulance.

## CONSERVATION AND BREEDING OF NATIVE INDIGENOUS BREEDS

For Conservation and breeding of livestock of native indigenous breeds having more disease resistance power and good production capabilities in local climatic conditions such as Gir and Kankrej Cow, Mehsani, Surati, Jaffrabadi and Banni buffalo and to impart training to Artificial Insemination workers and professionals to improve the quality of Artificial Insemination services and semen doses, Gujarat Livestock Development Board has been established in the state in 2002. GLDB has also been appointed as State Implementing Agency (SIA) for various Centrally Sponsored Schemes pertaining to bovine breeding.

GLDB has established Private Artificial Insemination Centers all over the state which are called "Gopalmitra Kendra" to deliver door step AI services to livestock owners

Facility of Quarantine Station, Central Semen Bank, Frozen Semen Distribution Station with ultra-modern facilities for sufficient production and constant supply of semen doses in the State have been created under GLDB. Constant supply of Liquid Nitrogen (LN<sub>2</sub>) to all Artificial Insemination Centres is ensured by GLDB with network of 27 Silo for LN<sub>2</sub> storage in the state including 12 silo under GLDB and 15 Silo provided under various Dairy Unions.

On World Milk Day, 2018; three AI technicians of Gujarat state have been awarded with Best AI technician award by Government of India under Rashtriya Gokul Mission. Gujarat has successfully implemented two phases of Nationwide Artificial Insemination Programme in 21 districts identified by Government of India. In 3rd phase also, 1.76 lakhs AI have been conducted till 03.12.2021 in Gujarat.



Cow dung and urine of domestic Indian cows is good source of highly beneficial microbes. Its use has given promising results. For harvesting the beneficial effect of SPNF, healthy cow is a prerequisite

## ARTIFICIAL INSEMINATION AND OTHER BREEDING SERVICES

Currently, robust network of 9,053 AI centres and 26 Intensive Cattle Development Blocks are taking care of Artificial Insemination and other breeding services of livestock in the state. There has been rise of 284 % in Artificial Insemination activity in last two decades in the state. (2000-01: 22.99 Lakhs AI and 2020-21: 88.35 Lakhs AI). In 2019-20, out of total 787.48 Lakhs AI performed in India, 83.25 Lakhs AI (2nd highest next to Uttar Pradesh) has been conducted in Gujarat which is nearly 11% of the country.



In 2010, State Frozen Semen Production and Training Institute has been established at Patan under National Project for Cattle and Buffalo Breeding (NPCBB) for production of Frozen Semen by maintaining breeding bulls of different breeds. Since establishment, institute has been awarded "A Grade" for four times consecutively during evaluation by Central Monitoring Unit of Government of India. This institute spread on 108 acres area has installed capacity of 25 Lakh frozen semen doses per year.

Looking to 89% female calves birth rate through use of sex sorted semen in a pilot project in Amreli District, Gujarat Livestock Development Board has established Sexed Semen Production facility at Patan with assistance under Rashtriya Gokul Mission with objectives of faster breed improvement and more female animals with good milk production potential resulting in more milk revenue generation.

Thus, the Department of Animal Husbandry contributes in the promotion of the natural farming by robust system of animal disease diagnosis and ensuring health and production of the livestock of the state. Efforts to develop animals with high genetic merit and sex sorted semen technology will certainly play a pivotal role in the development of the economy of the state which will help to double the income of the farmers by the year 2022 as envisaged by our Hon'ble Prime Minister.

# THE ONE GUJARAT ORGANIC FARM PRODUCES CO-OPERATIVE SOCIETY LTD.

**G**ujarat has played a catalyst role in the growth trajectory of India since Independence. It is contributing immensely to achieving the five trillion economy for the nation.

The growth strategy of the country has many components. These must address the requirements of the nation and the world. Apart from the other growth drivers, agriculture has always been a major contributor when it comes to the nation's progress. Natural Agriculture in Gujarat is making very good progress and is helping to make farmers prosperous and self-reliant. Natural agriculture is making sterling contribution to achieve the target of a strong and prosperous economy.

Natural farming in Gujarat is predominantly characterized by large

number of agro based set-ups that are performing well in their respective areas, harnessing the export market. Natural farming is the need of the hour. Gujarat has its own way of showing the world what it can contribute at the international level.

Earlier, the natural farming fraternity of Gujarat was scattered. They were decentralized in their working pattern. This is where the role of the collaborative initiative efforts of the Government of Gujarat and The One Gujarat Co-Operative Ltd comes in action to boost the natural farmers of Gujarat and set up a benchmark for the world to follow.

## ABOUT 'THE ONE GUJARAT ORGANIC CO-OPERATIVE LTD'

The One Gujarat Organic Farm Produces Co-Operative Society Ltd is Gujarat's first and the biggest certified

organic farmers FPO. It works under the registered trademark brand "Or-Farm". The idea behind this FPO is to bring the scattered certified natural farmers under one umbrella of the brand Or-Farm. This collaboration will be more effective in terms of various aspects of farming, marketing, branding, processing and many more. The vision of the FPO is to connect the natural farmers from each corner of Gujarat and serve the global consumer via one platform. The strength of this FPO is that all its stakeholders are certified organic farmers of Gujarat.

## INTERVENTION OF GOVERNMENT OF GUJARAT OFFICIALS AND ENTERPRISING FARMERS

"The One Gujarat Organic Co-operative Ltd" is a collective brainchild of the top officials of the Government of Gujarat and Gujarat's enterprising farming community. It is not longevity that makes "Or-Farm" great and gives its special DNA. There is also a distinctive approach which underpins a culture of close agrarian supervision and careful personal support by both the parties involved i.e. officials from Gujarat government and the farmers. The Or-farm provides the synthesis of agricultural core activities support for its farmers such as contract farming, value addition, advance organic farming training, harnessing export opportunities and so on. Or-Farm continuously strives to ensure and develop the knowledge and technology which can be adopted and used by the entire farming community of Gujarat and make them compatible to deliver a quality produce to the world.



DEVESH PATEL





# GOPCA – RENDERING RELIABLE AND AFFORDABLE ORGANIC CERTIFICATION

**T**he changing market requirements and regulatory nature of organic certification demanded a body that could verify the veracity of those claims. Organic regulatory bodies established in response to this requirement often entail expensive certification procedures most often unaffordable to small farmers.

Gujarat Organic Products Certification Agency (GOPCA), a Gujarat State Government Certification Body that carries out impartial third party inspection and certification in organic production and handling, however provides reliable and efficient inspection and certification services to the smallest of operators/farmers in a cost efficient way. GOPCA works in accordance with the criteria laid down under the NPOP (National Program for Organic Production) 2005-Jun,2015. GOPCA is an autonomous body and is registered under Societies

Registration Act, 1860.

A non-profit certification program, GOPCA is committed to inspecting and certifying environmentally sound production systems and the preservation of natural resources, improvement of the soil quality and health through organic and sustainable farming practices.

## **GOPCA ORGANIC STANDARD GUIDELINES**

According to GOPCA, organic certification will not be a declaration of the quality, food safety and absolute residue free guarantee for food and food products and will not provide guarantee for efficiency of agriculture inputs, but it will be a verification process of determining that the products, said to be organic, are in compliance with organic standards of NPOP. Therefore a set of guidelines elaborate guidelines that dictate the production process of farm products have been outlined by GOPCA.

For converting a farm from traditional agriculture to organic agriculture, it takes a period of three years. Simultaneous production of conventional, in conversion and/or organic crops or animal products which cannot be clearly distinguished from each other, is not allowed. Most importantly, the farming practices should facilitate biodiversity and nature conservation. When organic seed and plant materials are available, GOPCA guidelines instruct their use. In circumstances when certified organic seed and plant materials are not available, chemically untreated conventional materials can be used. However, the use of genetically engineered seeds, pollen, transgene plants or plant material is strictly not allowed.

There are also similar guidelines laid out for fertilizers used in organic agriculture. GOPCA sets limitations to the total amount of biodegradable material of microbial, plant or animal origin brought onto the farm unit, taking into account local conditions and the specific nature of the crops. Mineral fertilisers are only allowed to be used in a supplementary role to carbon based materials. Mineral fertilisers shall be applied in their natural composition and not be rendered more soluble by chemical treatment.

Products used for pest, disease and weed management, prepared at the farm from local plants, animals and micro-organisms, are allowed. Thermic weed control and physical methods for pest, disease and weed management are permitted whereas thermic sterilization of soils is not. The use of synthetic herbicides, fungicides, insecticides and







when all standards requirements have been met. Mixed products where not all ingredients, including additives, are of organic origin may be labelled accordingly.

The label for conversion products should be clearly distinguishable from the label for organic products. All raw materials of a multi-ingredient product should be listed on the product label in order of their weight percentage. It should be clear which raw materials are of organic certified origin and which are not. All additives are to be listed with their full name. If herbs and/or spices constitute less than 2% of the total weight of the product, they may be listed as “spices “ or “herbs “ without stating the percentage. Organic products should be stored and handled separately to maintain their identity.

GOPCA has been providing farmers and operators with organic certification related services at an affordable price. But that has not diluted their standards or approaches. They continue to remain the best as quality for them is not just another goal, but their basic strategy for survival and future growth.

other pesticides is prohibited. So is the use of synthetic growth regulators and synthetic dyes.

Another crucial area that requires attention during conversion is checking contamination from the chemicals used in tradition agriculture. GOPCA has strict guidelines that ensure such contamination does not happen. All relevant measures should be taken to minimize contamination from outside and within the farm. In case of reasonable suspicion of contamination, GOPCA make sure that an analysis of the relevant products. Soil and water conservation is

a crucial aspect in organic farming .

There are subsets of products harvested from farm lands that are primarily not cultivated by the farmers, for instance wild harvested products. They shall only be certified organic if derived from a stable and sustainable growing environment. In case of processing methods, mechanical and physical, biological, smoking, extraction, precipitation and filtration methods are allowed by GOPCA.

Single ingredient products can be labelled as “produce of organic agriculture” or a similar description



# SAJEEVAN FOUNDATION COMMITTED TO GUJARAT'S NATURAL FARMING MOVEMENT

Since 1999, Sajeewan Foundation is acting as a bridge in between various NGOs, social groups and the Government of Gujarat with all those who are working in the same field.

Miss Nituben Patel is the Founder of this organization. She belongs to a family of farmers. Nituben hails from a village in Rajkot district, and is presently working in Rajkot city. Nituben always had a burning desire to serve nature and society in a selfless mode.

Nituben started awareness programs and organized a major campaign to benefit eyes from 1999 on the Race Course of Rajkot. Just like distribution of Teeth Tweeg (daatun) of "KARANJ", Jivanti plants for the hygiene of the eyes of the morning joggers.

Sajeewan Foundation is also working with the mission of "Plastic Free Rajkot" by distributing approximately 10000 cotton bags every year at no cost.

Sajeewan Foundation is rigorously active in the plantation of approximately



**The natural farming revolutionary model will contribute in doubling farmers' income. The Gujarat model of natural farming will become the torch bearer for other states**

1000 trees every year with the active involvement of school and college students. The most important and notable work has been done in the re-

establishment of Old "Rushi Krushi" – the campaign to promote pesticides-free organic farming amongst approximately 10,000 farmers of India.

Late Shri Dipakbhai Sachade (Dipak Dada) is the Farming Guru of Nituben Patel. He connected her with Farm, Farmers and the Concept of Biodiversity. Dipak Dada was a Krishi Rushi and the pioneer of Amrut Krushi. His concept of "Magical Mitti" and "Jungle Mimicry" had given fantastic and unbelievable results in fertility of land and agricultural produce.

Nituben has dedicated herself to educating people about how to reuse agricultural waste by "Amrut Krushi" pattern and how to increase agricultural yield by using organic farming practices. Nituben Patel has dedicated her life to the welfare of farmers by educating them for poison-free food production, processing, purchasing and sales.

In this Journey of Sajeewan Foundation, many experts of various fields are working together for the common goal in co-ordination with Nituben Patel.

Nituben Patel had developed a successful model of Farm to Plate







in Rajkot City. This model became a landmark for farmers and agricultural entrepreneurs. Due to this vision and expertise, she is working as a helping hand of the Government of Gujarat for various projects like upliftment of poor farmers, upgrading of rural areas by education and training of farmers interested to make the shift to natural farming.

#### Motivating Farmers For Natural Farming

Sajeevan Organic is one of the NGOs working as a connecting link/pool which connects all farmers engaged in natural farming, and those who are willing to shift to natural farming with the Government of Gujarat.

Sajeevan is motivating farmers for organic farming. Sajeevan is also inviting farmers to join FPOs in a green organic revolutionary step of the Government of Gujarat, the registration process, the document collection, verification, counselling of farmers etc...

We are glad to announce that one of 100 FPOs, the team of Sajeevan Foundation had registered 84 FPOs in Just 45 days. What is even more important is that all these FPOs are of 100% organic farmers. This may sound easy, and the readers may feel that it was a easy process. But at ground level, it was a highly challenging task that Sajeevan Foundation had accepted and



also accomplished with great enthusiasm and fervour.

Probably Gujarat will be the first state of India which has initiated and implemented the natural farming movement with total involvement of all the stakeholders. The government has been able to register a large number of FPOs within a short period of time.

One more feather in this crown is that the Government of Gujarat is developing an ICS (Internal Cluster System). This system reduces the production cost of agricultural produce and increases the availability of agro technologies to every farmers of this cluster. The total farming activities starting from selection of crop, sowing process, management of labour resources to infrastructural resources are covered. Traceability is a very important factor for the export market. In

the domestic market too, traceability is emerging as an important consideration for buyers. With traceability, giant buyers and food parks can directly approach the cluster and its farmers. This shall help Gujarat state to be acknowledged in the natural farming sector on all international platforms.

Sajeevan Foundation will also play an active role as a mentor and facilitator between various FPOs and certified successful producers, packager and marketer of the naturally produced products of India. We are working across India and also in four countries abroad. In the whole process of the revolution of RUSHI KRUSHI, Sajeevan Foundation is performing a pivotal role.

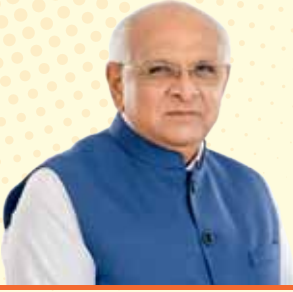
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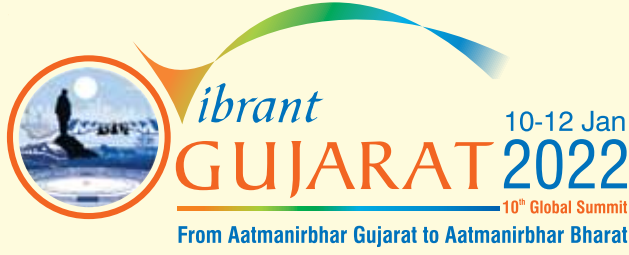








**Shri Bhupendra Patel**  
Hon'ble Chief Minister, Gujarat



**Shri Narendra Modi**  
Hon'ble Prime Minister, India

# 10<sup>th</sup> VIBRANT GUJARAT GLOBAL SUMMIT 2022

From Aatmanirbhar Gujarat to Aatmanirbhar Bharat

Inauguration by  
**Shri Narendra Modi - Prime Minister, India**

**10 11 12** JANUARY, 2022

MAHATMA MANDIR, GANDHINAGAR, GUJARAT

"Gujarat has always been the hub of growth and development.  
'Aatmanirbhar Gujarat to Aatmanirbhar Bharat'  
strengthens our commitment towards the same."

**Shri Bhupendra Patel,**  
Hon'ble Chief Minister, Gujarat, India

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Parallel to the Summit will unfold 'VIBRANT GUJARAT GLOBAL TRADE SHOW 2022' from January 9 to 13 at one of India's Largest Exhibition Venue spread over 200.000 sq mtrs.