AIOI

Association of Indian Organic Industry

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# NEWSLETTER

EDITION 09 - OCTOBER 2022

**" It is our duty to do chemical free farming, Organic Farming and Natural Farming "**

Today Natural Farming is also a way of becoming Self-reliant.

Today the factories of Nano Fertilizer have brought a new hope in the country. But Natural farming and Chemical-free farming can give a boost to self-reliance.

**~ PM NARENDRA MODI**

during the 75th Independence Day Speech

## INSIDE THIS EDITION



## FROM THE CEO'S DESK

Dear Friends,

**Greetings from AIOI,**

Food and Agriculture Organisation (FAO) and the World Bank estimate that the global population will reach around 9.7 billion people by the 2050. Globally, Chronic and acute hunger are on the rise, and India too, as a developing economy, will face a challenge to meet the food security needs due to fluctuations in crop yields resulting influctuating agriculture production trends. The root cause of this challenge is attributed to climatic change.

Apart from cereals and other grains livestock, food products also contribute to the food chain as they are energy and protein rich and are sources of many essential nutrients. The question arises, how can we ensure sustainability in any field of agriculture to face the persistent as well as emerging challenges? To address these issues, this edition of the newsletter has a special feature on **sustainable development and how organic livestock and poultry sectors** can support India's contribution to the SDGs; and how organic livestock production would be "Good for the farmers, Good for the Planet and Good for all of us".

This edition also features the importance of organic millets and its promotion by Government of India. Coming year 2023, the entire world will observe the **International Year of Millets (IYOM-2023)** declared by the FAO. Millets are unique amongst cereals. Millets grow under dry conditions, can perform well with relatively poor soils and require low inputs and best for drought hit areas. They are rich in superior nutritional qualities compared to other cereals with low glycaemic index.

India has the potential to produce in all types of millets Jowar, Bajra, Ragi, minor millets (Kodo millet, Little millet, Barnyard millet, Proso millet, Foxtail millet, Browntop millet). Around 14.5 million MT of millets grains are produced from nearly 14.2 million ha, which constitutes around 7% of national food grain basket in our country.

This edition of the newsletter also updates you all with the new initiatives of AIOI in capacity building training capsules especially designed for the aspiring certification bodies as well as for the NPOP operating certification bodies on requirements to update their quality management system for regulatory as well as ISO-17065 compliances.

I hope you enjoy reading this edition and we look forward to your feedback so that we can continuously add value to it.

With best wishes
**AIOI Family**

# Sustainable Development Goals: Contribution of Livestock and Poultry

**SHRI TARUN SHRIDHAR**
Former Secretary, Ministry of Fisheries,
Animal Husbandry and Dairying, Government of India

## HUNGER ON RISE :

Chronic and acute hunger are on the rise, admit both the Food and Agriculture Organisation (FAO) and the World Bank. Though this trend is attributed to various factors such as political conflicts in certain regions, socio-economic conditions, natural hazards, climate change etc., it is also a pointer towards the failure of the all powerful stakeholders, including global inter-governmental institutions to address this most basic of human issues. Covid-19, though not singularly responsible, has further exacerbated the problem across all economies through reduced incomes and disrupted supply chains making 2020 the severest of all years in recent times increasing food insecurity and impacting vulnerable households. Feeding 9.7 billion people by the year 2050 remains a challenge, more so in the light of these developments where agriculture driven growth is at risk thus contributing to food insecurity, particularly so in the developing economies. Climate change compounds the risk in food insecure regions by adversely affecting crop yields. It indeed is a tragic irony against this background that one third of the food is wasted or lost. So it is a moot question how we will feed, and feed well, the burgeoning populations amidst the aftermath of Covid-19 and the continuing challenge and threats posed by climate change.

## LIVESTOCK FOR FOOD SECURITY :

Global food prices registered an increase of approximately 20% during the year. Despite a comfortable supply outlook for major commodities, prices have been volatile due to a combination of factors including downward revisions in maize and soybean supply outlook, export restrictions, and rising demand for feed grains for livestock production in Asia. Given that the global food supplies are comfortably poised, export restrictions are unfathomable and could hurt food security in importing countries. Livestock sector could play a much wider and more significant role in such a scenario.Livestock contribute substantially to global food systems, providing valuable nutritional benefits, supporting livelihoods, and strengthening the resilience of families and communities to environmental and other shocks. Animal products provide more than 60 percent of dietary protein in developed countries, compared to only about 23 percent in developing countries. There is, therefore, substantial room for expansion of livestock production in the emerging economies. Animal products offer several advantages over crops. For example: meat, eggs and milk can be produced year-round, being less seasonal than cereals, fruit and vegetables; animals, particularly small ones, can be slaughtered as the need arises, for food or income; and both milk and meat can be preserved - milk as powder, clarified butter, curd, cheese etc., and meat by drying, curing, smoking, salting and an endless array of value added products. So it is worth an effort to evaluate the post pandemic developments in the livestock sector, especially its increased contribution to the food basket.

## LIVESTOCK AND CLIMATE CHANGE :

Livestock sector, the whipping boy of climate change activists, is routinely vilified as a major contributor to environmental damage and climate change. Powerful voices in the developed world, that matter in establishing global agenda, have begun to question the how, and how much of the animal protein we should produce. Perhaps they have missed out that all this while, in other parts of the world, many are experiencing, to the extreme, hunger, malnutrition and poverty; and access to sufficient livestock foods is a far cry for them. At the same time, national governments through the United Nations, have agreed to work towards achieving the Sustainable Development Goals (SDGs); a collaborative effort to tackle the severest of global problems such as hunger, poverty, pollution and climate change. Despite the irony of the situation, what is appreciable is that along with the commitment to the SDGs is the declaration to move forward to economic prosperity for all.

Is there a role for livestock in this emerging picture of the future? And how can the sector contribute to delivering the Sustainable Development Goals? Let us first understand what is sustainable development; and what are the SDGs?

## SUSTAINABLE DEVELOPMENT DEFINED:

Sustainable development has been defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs. Sustainable development calls for concerted efforts towards building an inclusive, sustainable and resilient future for people and the planet. For sustainable development to be achieved, it is crucial to harmonize three core elements: economic growth, social inclusion and environmental protection. These elements are interconnected and all are crucial for the well-being of individuals and societies. Eradicating poverty in all its forms and dimensions is an indispensable requirement for sustainable development. To this end, there must be promotion of sustainable, inclusive and equitable economic growth, creating greater opportunities for all, reducing inequalities, raising basic standards of living, fostering equitable social development and inclusion, and promoting integrated and sustainable management of natural resources and ecosystems.

## SUSTAINABLE DEVELOPMENT GOALS (SDGS) OF THE UNITED NATIONS:

Put simply, the SDGs are a set of 17 broad goals for People and for the planet as proudly and loudly proclaimed by the UN, “a universal call to action to end poverty, protect the planet and improve the lives and prospects of everyone, everywhere”. These 17 Goals were adopted by all UN Member States in 2015, as part of the 2030 Agenda for Sustainable Development which set out a 15-year plan to achieve the Goals. The goals, which include ambitions to achieve “Zero hunger”, “No poverty” and “Good health and well-being” for all, have become a global rallying point across all sectors, from governments to business to civil society, and cover key themes that are relevant to the livestock sector too.

The livestock sector contributes, directly or indirectly to each of the 17 SDGs. The sector’s contribution is pronounced and of particular value to the following. SDG 1: no poverty, SDG 2: zero hunger, SDG 3: good health and wellbeing, SDG: 5 gender equality, SDG 8: decent work and economic growth, SDG 10: reduced inequalities, SDG 13: climate action and SDG 15: life on land. However, for a holistic perspective of the spirit behind the call for action through the SDGs, it may be useful to evaluate the contribution of the livestock sector to the SDGs in the following core areas: (i) food security and nutrition; (ii) inclusive economic growth and improved livelihoods; (iii) animal health and welfare; and (iv) natural resources and climate change.


More than 800 million people in the world suffer from chronic hunger; and nearly two billion are vulnerable to malnutrition. Hunger and malnutrition are synonyms of poverty, impede cognitive development in children and reduce labour productivity. For the populations pushed to these extremes, it is subsistence rather than growth; prosperity remains a distant dream. As a global community, we are way off the mark in achieving Zero Hunger and the COVID-19 pandemic has further exacerbated the miseries.

## LIVESTOCK FOOD PRODUCTS :

Livestock food products are energy and protein rich as also sources of many of the essential nutrients. Livestock species and breeds are adapted to a wide range of environments, so they are ubiquitous. Obviously, the sector has great potential to contribute significantly to the eradication of hunger and malnutrition all across the world, even in areas that are unsuitable for crop production. Globally, on an average, livestock products contribute 34 percent of protein and 17 percent of calorie intake of human diets, but this contribution is not equitably distributed among regions. The food systems worldwide, especially in the developing countries, motivated by the critical need to ensure food security, focus on providing low-cost calories for the majority of the populace. This often leads to inadequate attention to nutrition and healthy diets resulting in malnutrition which resultantly place a heavy burden on human health and well-being. Improved governance of, and more importantly increased role to, the livestock sector is part of the solution to attaining food and nutrition security to the vast multitudes of the poor and hungry.

An estimated 10 percent of the world's people live in extreme poverty. The number had been consistently decreasing in recent years but the unprecedented economic slowdown brought on by the COVID-19 pandemic has, quite unfortunately, reversed the trend. Livestock production and supply chains constitute a very important source of income. Globally more than a billion people depend on livestock value chains for their livelihoods. Small-scale livestock keepers and pastoralists represent a large part of the livestock producers. About 600 million of the world's poor keep livestock and are vulnerable to the vagaries of climate. Livestock for them are an asset for economic resilience and income which, even if small, flows on a regular basis.

The global demand for livestock products is expected to increase by up to 50 percent by 2050, creating further economic opportunities. However, the ability to take advantage of these opportunities is not equal. Small-scale producers have little bargaining power in either input or output markets and limited access to social protection schemes. Many smallholders are women, who often have less access to production resources, credit, knowledge and information and markets. The involvement of youth in farming is also decreasing. Pastoralists are often marginalized and not considered by national policies and programmes.

## LIVESTOCK AND CLIMATE CHANGE :

Chief Secretary, V. Irai Anbu, on 15th September 2022, chaired a meeting that discussed the drafting of a policy for organic farming in Tamil Nadu. the need to expand it to more areas and the policy decisions that were to be made in this regard, an official release said. The meeting discussed ways to create market for organic products, which could help in protection of environment, food security, agriculture and soil health. The meeting analysed organic farming policies in Andhra Pradesh and Sikkim and discussed whether provisions in these states would be suitable for Tamil Nadu. They also discussed possible practical difficulties in those policies.

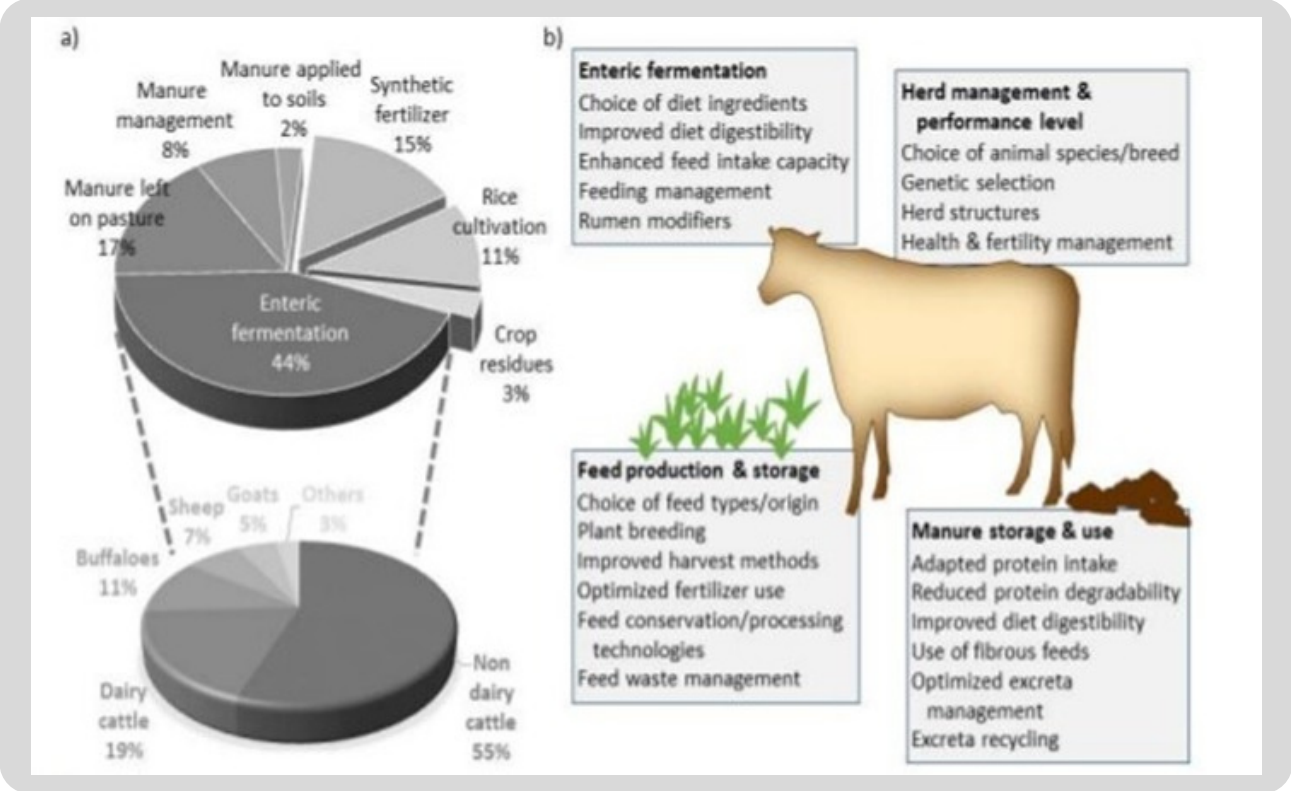
## LIVESTOCK MANAGEMENT :

Increasing the productivity of livestock farming and its better integration with agriculture could be effective means to increase sustainability. Productivity gains and the resultant financial benefits should be equitable without compromising upon human and animal health or environmental sustainability. The approach along the value chain should be holistic and inclusive, thus empowering the small livestock holder.

An estimated 2.7 million human deaths a year are attributed to zoonotic diseases. Many other animal diseases cause heavy economic losses, averaging 25 percent globally. Diseases also disrupt international trade, jeopardizing food security and livelihoods. Intensification of production to increase the short-term profitability may compromise animal welfare, affecting the immunity and productivity of animals, rendering them more susceptible to diseases. In most of the countries, animal welfare policies, standards and practices are poorly implemented.

Coherent and inclusive policy development and implementation at national level to improve primary animal health care, application of good husbandry and welfare standards as part of an integrated One Health approach is the desirable intervention. This would strongly support sustainable food systems.

Livestock are the biggest user of agricultural land. A large proportion of grasslands cannot be put to cultivation and are used for grazing which may, if poorly managed, cause land degradation and biodiversity loss. Livestock consume approximately one-third of global cereal production, besides roughages such as grass and crop residues and other agro-industrial by-products. Livestock contribute to greenhouse gas (GHG) emissions, 14.5 percent of total anthropogenic GHG emissions and also use significant amounts of freshwater.




Livestock are both the victim and the key to climate solutions in agriculture. Climate change can devastate animal productivity, health and welfare. It can also affect disease patterns, making outbreaks harder to control, but the livestock have the potential to contribute to the conservation of biodiversity and genetic resources for food and agriculture. The declining diversity of livestock needs to be reversed aggressively.

The resilience of small-scale producers must be strengthened through the diversification of sources of incomes. Indigenous genetic resources, and husbandry practices should be blended with modern science. Improving productivity is key to reducing the negative environmental impact of the sector, in particular livestock characterised by low carbon emission and higher resource use efficiency.

## Initiatives for SDG's :

Governments have refocused their policies and allocation of resources on the SDGs; businesses too are building these goals into their strategies. The International Poultry Council (IPC) affirmed its commitment as a leader in transforming the world through environmental and sustainable practices, in partnership with the Food and Agriculture Organization of the United Nations (FAO). Focusing on five of the SDGs, the IPC committed to the sustainable development of the sector, delivering benefits for both the planet and people globally.

These included:

- ·Zero hunger (SDG 2) – sharing good practices and promoting sustainable production;
- ·Good health and well-being (SDG 3) – promoting poultry as a healthy choice and sharing good management and manufacturing practices;
- ·Quality education (SDG 4) – building capacity to ensure high quality and sustainable production;
- ·Industry, innovation and infrastructure (SDG 9)- Supporting innovative and sustainable industrialisation;
- ·Climate action (SDG 13)– reducing greenhouse gas and other emissions.

The World Egg Organisation too has identified six key objectives where it claims to be making a significant impact through a range of dedicated sustainability initiatives in line with the UN's targets.

These objectives specifically address the following goals:

- Zero Hunger;
- Good Health and Well Being – Eggs fulfil numerous nutritional requirements; iii) Quality Education - Egg consumption supports brain development and concentration;
- Responsible Consumption and Production – Building trust and transparency in food supply chains;
- Climate Action – industry share best commercial practices across the industry's member organisations;
- Partnership for the Goals – WEO develop constructive relationships with stakeholders.

But then there are inherent contradictions on account of the flawed approach of 'one size fits all'.

The Director General of the International Livestock Research Institute articulates this dilemma, "The [livestock] sector is challenged by its environmental footprint and concern that consuming animal source foods leads to poor health. In many parts of the world we consume too much, but in many parts of the developing world we ought to consume more, given the importance of animal-source foods in nutrition."

State of Tripura to establish organic certification agency under NPOP An organic certification agency will be set up in Tripura to promote organic farming in the North-Eastern state, Information and Cultural Affairs minister, Sushanta Chowdhury has said. The proposed agency will be responsible for all technological interventions related to organic cultivation and will provide guidance to cultivators to switch over to a new method of farming, Chowdhury told a press conference here. The agency will be established by the Department of Agriculture and Farmers' Welfare. The minister said that an area of about 2,000 hectares that is under organic cultivation in the North-Eastern state will be increased to 21,000 hectares in the coming days. Chowdhury said the government has been working tirelessly to materialise the dream of Prime Minister Narendra Modi of turning the North-East into ahub of organic agricultural products.

**Read more at:**

## Organic Livestock Production :

It is no coincidence that “No Poverty” and “Zero Hunger”, the SDGs one and two are followed by the most appropriately titled SDG three “Good Health and Well-Being”. Food security has graduated to nutrition security, calories to proteins and micronutrients, the absolute quantity and volume to the quality of food. The most primary feature of this quality would be the safety, uncompromising, of the food products. A system based upon organic materials and practices in agriculture and livestock management would surely be a pillar of support to realisation of the goal of Good Health and Well-Being.

Organic agriculture is a system that accords primacy to a consideration for potential environmental and social impacts of agriculture and thus seeks elimination of the use of synthetic inputs, such as chemical fertilizers and pesticides, veterinary drugs, genetically modified seeds and breeds, preservatives, additives and irradiation. Management practices, generally indigenous, that maintain and increase long-term soil fertility and prevent pest infestation and other diseases replace these synthetic inputs.

“Organic agriculture is a holistic production management system which promotes and enhances agro-ecosystem health, including biodiversity, biological cycles, and soil biological activity. It emphasises the use of management practices in preference to the use of off-farm inputs, taking into account that regional conditions require locally adapted systems. This is accomplished by using, where possible, agronomic, biological, and mechanical methods, as opposed to using synthetic materials, to fulfil any specific function within the system." This is how the FAO/WHO Codex Alimentarius Commission, 1999 defines it. In the context of livestock management in India, management of fodder crops and pasture land would be of critical importance, keeping them free, as far as practicable from synthetic fertilisers and pesticides. When it comes to health management of animals it means reducing, if not eliminating, the use of antibiotics and other drugs. Not only the production system, but the entire value chain should be organically integrated.

Most importantly, besides the concerns for public health and nutrition, the policy, management and practice of organic agriculture should centre around the interests of the farmer and the consumer who are the primary stakeholders. However, in the dominant politics of the subject, they have been rendered voiceless and pushed to the margins in this debate, which is often governed by strong beliefs and ideology fuelled by misinformation, if not ignorance. The commercial misinformation as it abounds may turn out to be a great disservice to the promotion of organic livestock food products. A robust and reliable certification regime, high on trustworthiness and integrity, is the key to this challenge.

## Conclusion

The moot question today is, “Have we progressed enough to score the goal, or do we again remain confined to displaying our adroit dribbling skills?” After all, we have dribbled our way through the MDGs to the SDGs; the goal is still elusive though.

# Organic Farming -the only option for sustainable production in India

**DR P V S M GOURI**
Executive Director, & CEO,
Association of Indian Organic Industry

Whether high-tech or low-tech, larger- or smaller- scale farmers regardless of howorganic practices are followed with the underlying philosophies, organic farmers in India and in other parts of the world rely on methods that go beyond industrial agriculture, to grow food in ways that are both more just, and more tenable over the long term for a 'More Sustainable Future'.

This concept starts with the questions: What is organic food? How is it produced? And is it really more sustainable than conventional agriculture?

Organic food is grown without synthetic inputs such as chemical pesticides or synthetic fertilizers. Farmers apply methods that make sense to them and that reflect their values. Organic farmers in India follow traditional methods of farming conducive to the their climatic zones and cropping patterns such as crop rotation and manure, to control pests, diseases and weedsfor optimal production and this process minimizes the exposure of farm workers, consumers, and the environment, more broadly to harmful chemicals. Therefore, organic farming is generally considered a type of sustainable farming and doesn't necessarily equate to being local, and oftentimes the latter choice is more sustainable.

There are live examples of some grower groups projects in India that have shown that organic farming is not only sustainable for production but also financially competitive when compared to conventional farming.

One way of thinking of the difference between organic farming and sustainable agriculture is that the former method is focused on the inputs used in production for soil management,pest management by avoiding synthetic fertilizer/pesticides/herbicides, whereas sustainable farming is focused only on the physical treatment of the land (e.g. no till, cover crops, buffer zones).However, yields are comparable or better than on conventional farms, and the positive impact on the long-term health of the soil and the environment is enormous. While both approaches are perceived as being environmentally friendly, they achieve it through very different means of sustainable mechanisms **based on principles of agro-ecology such as.**

**1. Recycling** - Preferentially use local renewable resources and close to, as far as possible, resource cycle of nutrients & biomass

**2. Input reduction** - Avoid or eliminate dependency on commercial inputs. Farmers prepare their own inputs such as compost, botanicals and other traditional on farm inputs

**3. Soil health** - Secure & enhance soil health and functioning for improved plant growth, particularly by managing organic matter and by enhancing soil biological activity, maintain the inherent soil fertility by replacing the nutrients removed by the crops or livestock grazing is by using green manures, animal manures (raw or composted) and other natural fertilizers (e.g. rock phosphate).

**4. Animal health** - Ensure animal health and welfare.

**5. Biodiversity** - Maintain and enhance diversity of species, functional diversity and genetic resources & maintain biodiversity in the agroecosystem over time and space at fieldand landscape scales.

**6. Synergy** - Enhance a positive ecological interaction, synergy, integration, and complementarity amongst the elements of agro-ecosystems (plants, animals, trees, soil, water).

**7. Economic diversification** - Diversify on-farm incomes by ensuring small-scale farmers have greater financial independence and value addition opportunities while enabling them to respond to demand from consumers.

**8. Co-creation of knowledge** - Enhance co-creation and horizontal sharing of knowledge including local innovation, especially through farmer-to-farmer exchange.

**9. Social values & Diets** - Build food system based on the culture, identity, tradition, social and gender equality of local communities that provide healthy, diversified, seasonally and culturally appropriate diets.

**10. Fairness** - Supportlivelihoods for all actors engaged in food systems, especially small scale food producers based in grower groups.

**11. Connectivity** - Ensure proximity and confidence between producers and consumers through promotion of fair and short distribution networks by re-embedding food systems into local economies.

**12. Land and natural resources governance** - Recognize and support the needs and interest of family farmers, smallholders & peasant food producers.

**13. Participation-** Encourage social organization and greater participation in decision making by food producers and consumers to support decentralized governance and local adaptive management of agricultural & food systems

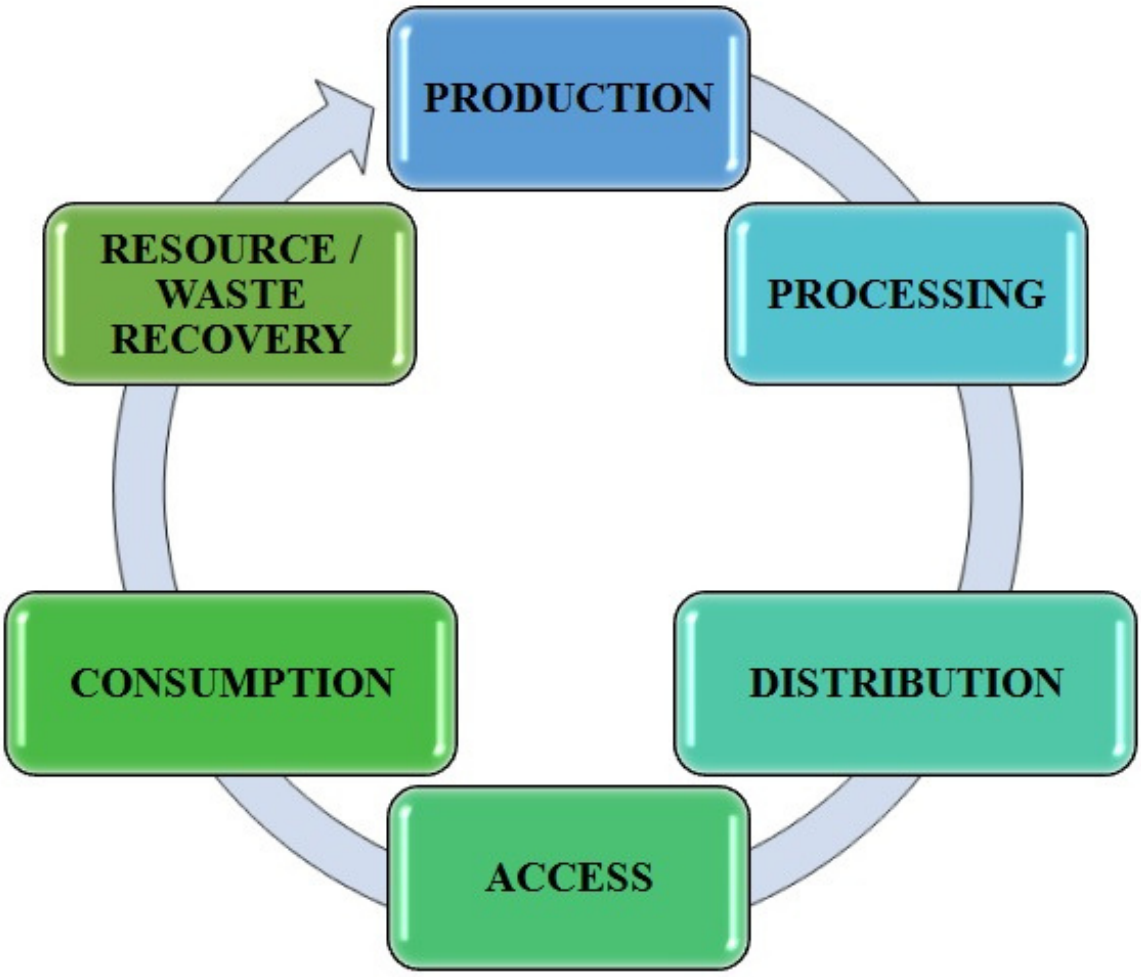
Certain elements of organic farming and sustainable farming overlap, for instance, the efforts to reduce/eliminate the use of fertilizers, herbicides, and pesticides, and the planting of cover crops. However, on issues such as tillage practice, they are somewhat in conflict with sustainable farming looking to minimize tillage to manage erosion, and organic farming often requiring additional tillage to manage weeds and greater participation in decision making. There are many working models of sustainable farming in India.

As a part of the National programme, Government of India has taken initiatives to encourage various methods for sustainable production, namely, organic farming /natural farming/ traditional farming for bringing sustainability to small farmers with very small land holdings.All these systems require five levels of transition to attain sustainability in organic farming:

- Increase efficiency of organic on farm inputs, use and avoid use of costlycommercially manufactured organic inputs;
- Substitute conventional farming practices with agro-ecological agro-ecology based diversified farming system which integrates crops, trees and livestock with functional biodiversity;
- Redesign agro-ecosystems depending upon the climatic zones and cropping pattern;
- Connect consumers and producers through the development of organic food networks;
- Build a new global food system based on participation, localness, fairness and justice.

For sustainable local food systemIn India, all these 5 different methods of eco-friendly agriculture are promoted under various operational channelsfor bringing in sustainabilityand affordability to small farmers

**(Fig.1).**




The effective approach usedwould be to convince farmers through live demonstration. A key part of the work is to show how it is possible to obtain similar incomes, even while following sustainable methods of farming.

Secondly, to provideassurance towards the product credibility to consumers and seeking the various eco-agriculture produce assurance mechanisms.

This brings demand beneficial to farmers, as they are able to fetch a higher rate for their produce, thereby, strengthening their economic security.

The present, there are three prevailing assurance mechanisms implemented in India to bring in further strength to farmers to attain financial sustainability. These are:

**1. Group Certification**

This approach facilitates access of smallholders to organic markets through third party certification under NPOP. The grower group certification is **based on Internal Control System (ICS) and applies to groups, farmers, cooperatives, contract production and small scale processing units.** ICS facilitates all the procedures by initiating local groups within communities, outlining certification procedures to farmers and ensuring that they thoroughly understand the Basic Standards document.

Group Certification is regulated by a specific set of requirements under theNational Programme for Organic Production (NPOP).The standards for sustainable production remain the same and the farms in geographical proximity.Hence, the producers in the group apply similar production systems. It relies inherently on the trust and transparency of community members to certify farmers.

2. **Participatory Guarantee Systems (PGS)** are locally focused quality assurance systems. Under PGS,they certify producers based on active participation of stakeholders and are built on a foundation of trust, social networks and knowledge exchange. The farmer must also sign a pledge to follow these standards within his farm. This is a collaborative approach which involves farmers and other stakeholders in verifying the authenticity of organic produce. PGS replaces expensive third party audits, making organic farming sustainable.

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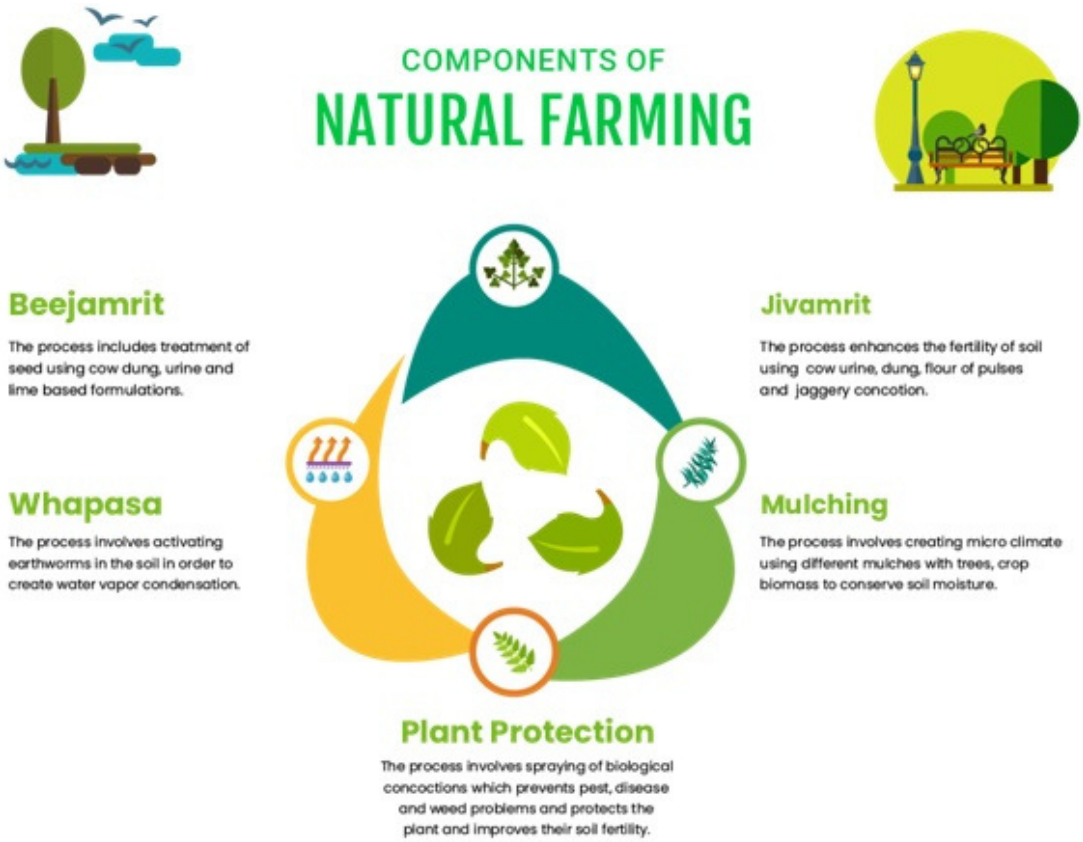
3.**Natural Farming**, as the name suggests, is the art, practice and, increasingly, the science of **working with nature to achieve much more with less**. Indigenous Technical Knowledge (ITK) is the actual knowledge of a given population that reflects the experiences based on traditional indigenous agricultural practices of knowledge and components

**(Fig:2).**




**To achieve the above aim in India, sustainability is promoted in agriculture through Government programmes and private entrepreneurs.The farmers are free to choose any one of the sustainability approaches to enhance their production and join**

# Organic Millets
# #NextGen Smart food

**MR. MANOJ KUMAR MENON**
Executive Director, International Competence Centre for Organic Agriculture

## Good for the farmers, Good for the Planet, Good for Us!

Come 2023, and the world will observe the 'International Year of Millets (IYOM-2023)'.FAO of the United Nations has declared this after India made a proposal for promotion of millets globally, and in 2021, 72 countries across the world ratified it at the General Assembly of the UN-FAO. It is not just the victory of India initiative; it is a much-deserved victory for this small but wonderful group of grains- **THE MILLETS!**

Millets are unique amongst cereals. Millets grow under dry conditions, can perform well with relatively poor soils and require low inputs. They are a staple food with superior nutritional qualities compared to other cereals. Used as dual-purpose crops (food and fodder), they make strong economic sense in mixed farming systems. In addition, millets sequestrate carbon, thereby adding to CO2 abatement opportunities, contribute to improved agro-biodiversity by their rich varietal diversity, allow for mutually beneficial intercropping with other vital crops, and have significant cultural value due to their long history. Millets are also termed as the last standing crop in times of drought.


Besides being farmer-friendly, millets cultivation requires less fertilizers and chemicals and thus farmers incur less cost for its cultivation. In that aspect, many millets growing areas are by default organic, and increasing number of farmers and markets are moving towards 'organic millets' as the demand for chemical-free, good health foods are growing globally.

And millets have special nutritional properties including high fiber, quality protein & mineral composition, being called as "nutri-cereals" viz. Jowar, Bajra, Ragi, Minor millets (Kodo millet, Little millet, Barnyard millet, Proso millet, Foxtail millet, Browntop millet)

**Sorghum**
(Sorghumbicolor)

Hindi:Jowari, Juar

**Pearl Millet**
(Pennisetum typhoides)

Hindi: Bajra

**Finger Millet**
(Eleusine coracana)

Hindi:Ragi,Mandika,Marwah

**Foxtail Millet**
(Setariaitalica)

Hindi: Kakum

**Little Millet**
(Panicum miliare)

Hindi: Kutki, Shavan

**Kodo Millet**
(Paspalum scobiculatum)

Hindi: Kodon

**Proso Millet**
(Panicum miliaceum)

Hindi:Chena; Barri

**Barnyard Millet**
(Echinochloa frumentacea)

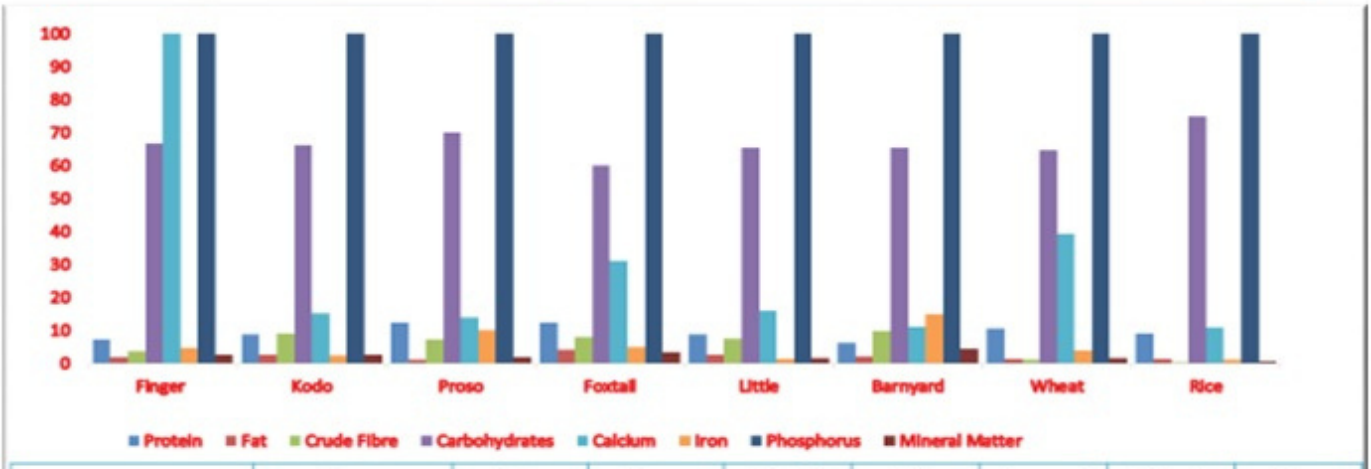
Hindi: Sanwa

**Brown Top Millet**
(Brachiaria ramosa)

Despite these facts, the consumption and cultivation of millets have been on the decline. Bringing millets into the mainstream of agriculture and diet is the challenge ahead. Need of an hour is to focus on awareness, creation of consumption demand, enhancing cultivation, conservation and commercialization of small millets in an integrated approach.

IYOM-2023 will help in many ways towards many of the above requirements to bring millets back into the mainstream of production and consumption. It is extremely important for the developing countries.

## Nutritional Composition of Millets and Cereals




| | Finger | Kodo | Proso | Foxtail | Little | Barnyard | Wheat | Rice |
|---|---|---|---|---|---|---|---|---|
| Protein (g) | 7.16 | 8.92 | 12.5 | 12.3 | 8.92 | 6.2 | 10.59 | 9.16 |
| Fat (g) | 1.92 | 2.55 | 1.1 | 4.3 | 2.55 | 2.2 | 1.47 | 1.24 |
| Crude Fibre (g) | 3.6 | 9 | 7.2 | 8 | 7.6 | 9.8 | 1.2 | 0.2 |
| Carbohydrates (g) | 66.82 | 66.19 | 70.04 | 60.09 | 65.55 | 65.55 | 64.72 | 74.8 |
| Calcium (mg) | 364 | 15.27 | 14 | 31 | 16.06 | 11 | 39.4 | 10.93 |
| Iron (mg) | 4.62 | 2.34 | 10 | 5 | 1.26 | 15 | 3.97 | 1.02 |
| Phosphorus (mg) | 283 | 188 | 206 | 290 | 220 | 280 | 306 | 160 |
| Mineral Matter (g) | 2.7 | 2.6 | 1.9 | 3.3 | 1.5 | 4.4 | 1.5 | 0.6 |

### Andhra Pradesh: Organic vegetables to be used in 'Nitya Annadanam' at Tirumala

Buoyed at the appreciation received for having employed organic products in the preparation of daily 'Naivedhyam' (food offering) to Lord Venkateswara at Tirumala, the TTD is now contemplating to extend the same to 'Nitya Annadanam', a free meals scheme. At a meeting with organic farmers on 13th September, 2022, Tirumala Tirupati Devasthanams (TTD) Executive Officer, A.V. Dharma Reddy, exhorted the farmers of Rayalseema districts to grow organic vegetables for use in 'Nitya Annadanam'. The TTD has a long list of vegetable donors who regularly contribute to annadanam activities. We will get every farmer tagged with a vegetable donor who in turn shall procure all the produce at a reliable price.

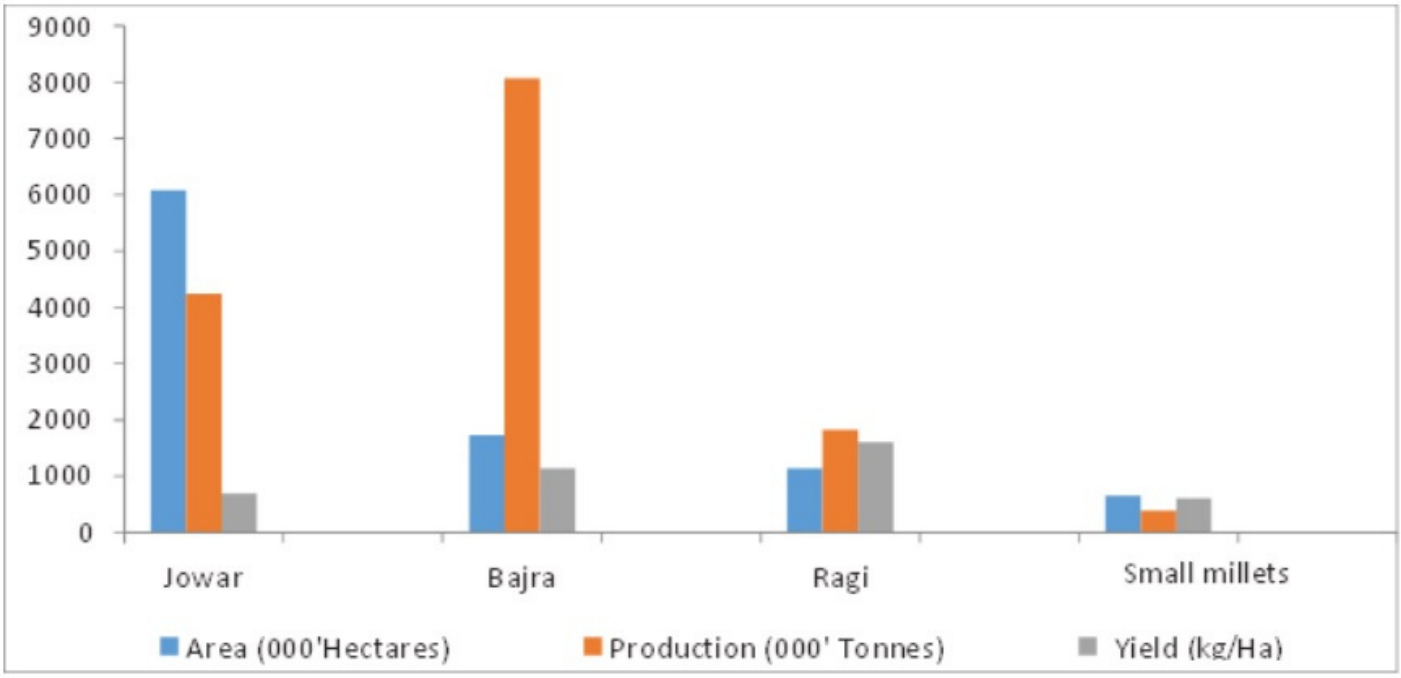
**Read More-**

India is the largest producer of millets in the world, and accounts for more than 40 percent of the global consumption. Millet cultivation is the mainstay of rainfed farming which provide livelihood to nearly 50% of the total rural workforce and sustain 60% of cattle population in India.

**Estimates (Mean of 2011-12 to 2015-16) of Area, Production and Yield of Millet Crops in India**

| Crop | Area (million ha) | Production (million ton) | Yield (kg/ha) |
|---|---|---|---|
| Jowar | 6098.26 | 5297.15 | 869 |
| Bajra | 7666.27 | 9103.79 | 1188 |
| Ragi | 1169.36 | 1873.88 | 1602 |
| Small millets | 694.93 | 418.78 | 603 |
| **Total Millets** | **3907.21** | **4173.40** | **1068** |

Source: Directorate of Economics and Statistics, GOI




Among the states, maximum area under millets is in Rajasthan (5 m ha; 87% under bajra) followed by Maharashtra (4 m ha, 75% under jowar) and Karnataka (2 m ha, 54% under jowar, 32% under ragi).

In India, about 14.5 million MT of millets grains are produced from nearly 14.2 m ha, which constitutes around 7% of national food grain basket. Bajra is grown in 7.1 million ha, yielding 8.0 million MT, followed by jowar (6.0 m ha, 4.2 m MT) and ragi (1.1 m ha, 1.8 m MT); and other millets (0.6 m ha, 0.39 m MT). These crops are grown for both grain and fodder purpose. Much of the grains are consumed at house hold level and the rest go for industrial uses including for poultry feed, food processing and breweries.

**Organic Millets and Karnataka model:**

A good part of the millets is grown organically, and are also marketed as 'Organic Millets', and Karnataka state is a leader here. In Karnataka the Organic Farmers Federations in some districts have certified organic areas and they market millets in bulk as well as in retail brands.

Karnataka is among the largest producing state where nearly all millet crops are grown. Jowar and ragi are the principal millet crops of the state and are grown in two seasons. Much of the ragi (62%) produced in the country is from this state. Nearly 2.1 million hectares are under millets in the state. Some quantities are also exported in the form of various value-added and processed food items.

- Govt of Karnataka has also initiated procurement of farmers' produce in PDS system and initiated millets on a pilot scale in the Mid-day-Meal (MDM).
- Sahaja Initiative of NGO Sahaja Samrudha has been popularizing millet based multi-cropping system in rainfed areas and sale of organic millet.

**Millets, and especially Organic Millets are the #NextGen Smart foods:**

- Good for the consumer: they can help overcome some of the biggest nutritional and health problems (iron, zinc, folic acid, calcium, diabetes and more);
- Good for the planet: they have a low water footprint, are able to survive in the hottest driest climates and will be important in coping with climate change, and more;
- Good for the farmer: can increase yields up to 3x, have multiple uses (food, fodder, fuel), and are typically the last crop standing in times of drought being a good risk management strategy for farmers.

(Source: From articles and Approach papers from Ministry of Agriculture & Farmers Welfare, Govt of India; and Dept of Agriculture, Govt of Karnataka)

# Bicycle Man of India

Neeraj Prajapati, nowadays, popularly known as "The Bicycle Man of India" is on a mission of "**111111 Km missionorganic bicycle**"since April 2019 to create awareness and promotionof Organic Farming in India. He was inspired to take this mission forward after he learnt aboutthe only train thatcarriescancer patients everyday from Bhatinda to Bikaner for their treatment.It is reported that there is one cancer patient in every home in Bhatinda. This is mainly because of pesticide residues in food causing this out-bust of cancer.

Neeraj has travelled Haryana, Punjab, Madhya Pradesh, Rajasthan, Uttar Pradesh and has now entered Maharashtra after covering a total of 44,830 km, with the aim of educating farmers about the benefits of organic farming.

Neeraj has also won several awards for his initiative, namely; Best Motivational Story 2020 by DD National and the 2020 Gangotri Udyamita Puraskar by Indian Society of Horticulture Research and Development (ISHRD) during the 3rd Global Organic Expo ICAR held at ICAR - Indian Agricultural Research Institute, PUSA New Delhi, etc.

Present at the Jaivik India Awards 2022, and was awarded a special prize for his initiative by Shri. B.C. Patil, Minister of Agriculture, Karnataka Government and the International Competence Centre for Organic Agriculture (ICCOA).

# AIOI Jury in Jaivik India Awards, 2022

International Competence Centre for Organic Agriculture (ICCOA) organized the 3rd Edition of Jaivik India Awards 2022 at Taj Hotel & Convention Centre, Agra on 23rd September 2022. The awards are given to recognize and reward unique initiatives and exemplary contributions in the organic sector in India.

AIOI was one of the partners of ICCOA apart from other seven organizations. Department of Agriculture, Karnataka, was co-organizer of Jaivik India Awards and it was supported by NCOF and Ministry of Agriculture & Farmers Welfare, Government of India.

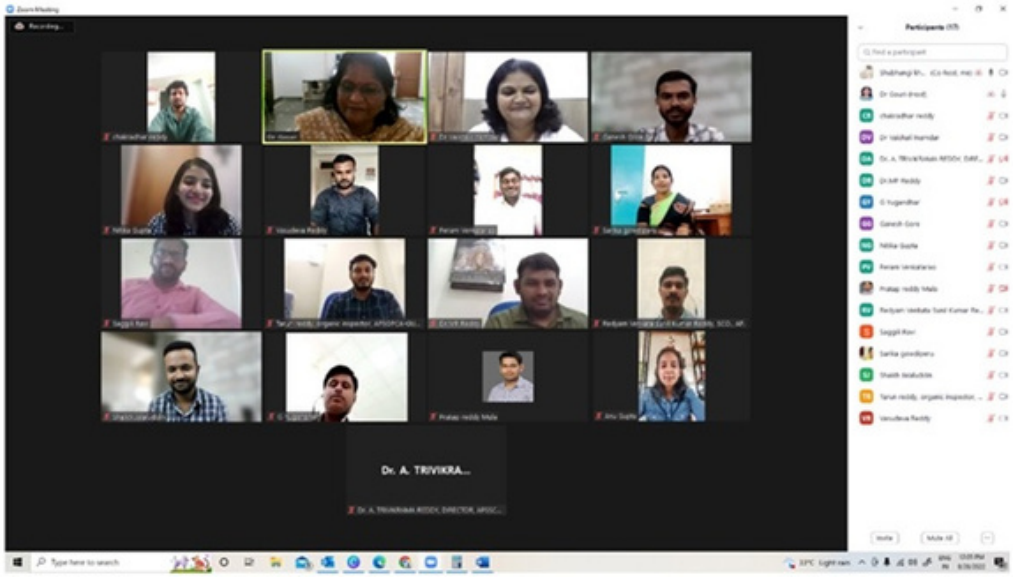
AIOI was represented by Dr. PVSM Gouri (Executive Director & CEO) as one of the panelists during the discussion on the Theme Vision 2030: **Opportunities amidst Challenges for Organic Agri-business**.

*Glimpses from the function of Jaivik India Awards organized by ICCOA at Agra on 23rd September 2022.*


# New Initiatives of AIOI

**Aspiring Certification Bodies Training:**

AIOI organized a 30 hours Online Training on "Development and Establishment of Organic Certification Programme with compliance to NPOP, ISO 17065 & NOP Standards" for the aspiring certification bodies who wants to get accredited under NPOP. The trainees were Eko Guarantee Pvt Ltd and Andhra Pradesh State Organic Products Certification Authority. Dr. PVSM Gouri (CEO, Association of Indian Organic industry), Mr. Anil Jauhri (Former CEO, NABCB) were the resource person who conducted the training. The topics covered in the training was Introduction of ISO 17065, NPOP, NOP and EU regulation, Procedures for compliance.

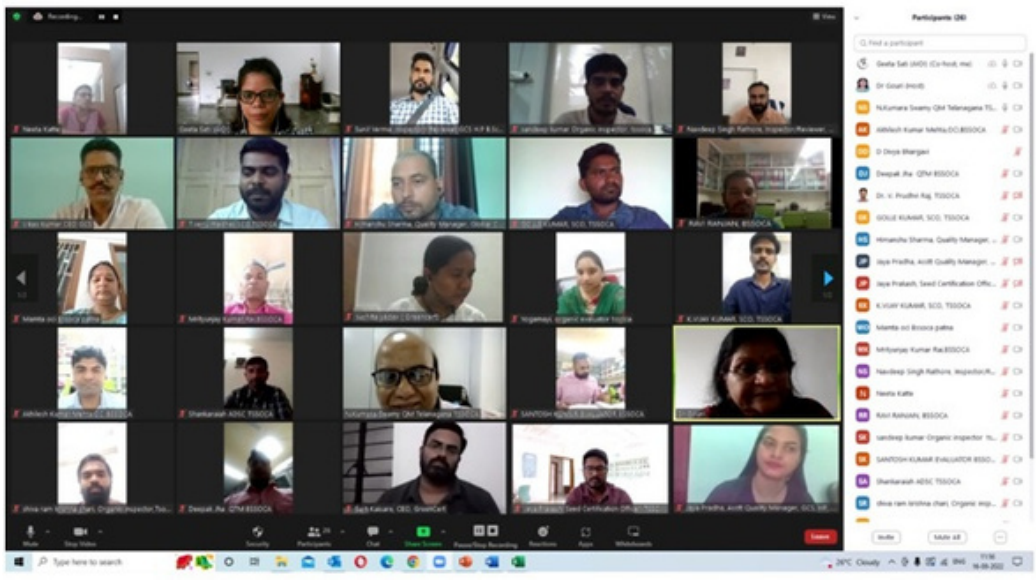



Interactive session with the participants

**Quality Management System Training;**

AIOI has organized a 30 hours Online Training Programme for Organic Certification Bodies under NPOP for updation in their Quality Management System in compliance with ISO 17065, NPOP and NOP. Four Certification Bodies have participated in the training namely, Global Certification Society, Telangana State Seed Certification Agency, Bihar Seed Certification Agency and Greencert Biosolutions Pvt Ltd. Dr. PVSM Gouri was the resource person for conducting the sessions.

The training was focused on New Development in NPOP and EU Regulation, Risk Assessments, Non-conformities, Corrective actions required in Inspection & Certification.



Case study discussion between the participants and Dr. PVSM Gouri

# New Initiatives of AIOI

AIOI participated for the first time in BIOFACH India 2022 at India Expo Mart (IEML), Greater Noida, Delhi-NCR. There were several visitors on the booth interested to work with AIOI as a member

## New organic cotton varieties successfully developed

Good organic seeds for cotton were hard to find. Not anymore: Over ten years of breeding resulted in success. Two new organic cotton varieties have recently been made available to farmers. These are the first ever cotton varieties of India bred under organic conditions. The varieties were developed through a decentralised organic participatory breeding program of FiBL Switzerland and partners.

In recent decades, it has become increasingly difficult for farmers to obtain good quality organic cotton seed. On the one hand, genetically modified (GM) seeds from large companies dominate the market and threaten the purity of other varieties.

**Read More-**

# New Members of AIOI Family

**Shubh Psyllium Industries:**

Shubh Psyllium Industries, based in Bhramanwada, Gujarat, is a manufacturer of Organic Psyllium and Psyllium Products. They work closely with farmer community to guide and instruct them regarding organic standards, sustainability, good practices and fair market prices.

Their manufacturing facilities comply with GMP (Good Manufacturing Practices), ISO 22000:2005, Kosher and Halal Certifications. They are registered under US FDA and are certified under NPOP, NOP (USDA) and EU Standards.

**ADM Agro Industries:**

ADM Agro Industries, based in Latur, Maharashtra is an exporter and manufacturer of Organic Oilseeds and Pulses. Their headquarters is located in Chicago, Illinois. They are operating in six continents.
They partner with the grower's group to support and work together for the personalized services and innovative technologies. They have been on the spot of Fortune World's Most Admired Company for the past 13 years consistently and is also recognized around the globe for innovation and sustainability.

**Global Certification Society:**

Global Certification Society is based in Kangra, Himachal Pradesh is a Certification body under NPOP. Their objective is to guarantee safe and quality products to the consumers through certification. Their scope of certification is crop production, organic inputs and wild harvest. The retired officers / professors / scientists of the state department of agriculture, horticulture, animal husbandry, state agricultural universities and agricultural banking sectors constitute the body of this organization. Their mission is to inspire marginal farmers to convert to organic farming.

**Telangana State Seed Organic Certification Agency:**

Telangana State Organic Certification Authority (TSOCA) based in Hyderabad, is a Certification body accredited by Agricultural and Processed Food Product Export Development Authority (APEDA), Ministry of Commerce & Industry, Government of India, New Delhi for certifying organic products as per NPOP. TSOCA is also authorized as Regional Council (RC) by National Centre of Organic Farming (NCOF), Ghaziabad, UP for certifying Organic Products under PGS.

# Announcements

## Association of Indian Organic Industry & Professor Jayashankar Telengana State Agricultural University

**Announces the commencement of 3rd short term online certificate course for entrepreneurs' development and empowerment for employment in Organic Industry.**

AIOI Certificate Course on Entreprenuership Development in Organic Products is a professional course targeted to cater to the needs of organic industry. The information, guidance, practical training and course completion certificate will provide the participant with several opportunities in the industry like:

- Auditing for assessment of organic programmes
- Opportunities for organic certifications
- Quality assurance executive and quality managers in organic foods and farm industry
- Position in new product development
- Organic agriculture consultants and many more

Eligibility:

- Graduates and graduating students (final year) in Life Sciences and Applied Sciences.
- Students completed Diploma in Agriculture.
- Candidates appearing for final exam in Bachelor's degree / equivalent qualification or awaiting their results, are also eligible to apply.

The course will be for 40 hours

Duration : 4 months

For further information, contact us at

memberservices@aioi.org.in

Next Batch Starting from **February 2023** Registration will start frrom **December 2022**

ASSOCIATION OF INDIAN ORGANIC INDUSTRY

# Quality Management Training Programme

**Topic of Interest:**

- Updating Quality Management as per ISO17065
- Risk Assessments
- Non-conformities
- Corrective actions required
- Inspection & Certification
- Requirements as per NPOP, EU and NOP Certifications

Mode of Training : Hybrid Mode

Memberservices@aioi.org.in
Corporate@aioi.org.in

91-11-43602167

# Announcements

AIOI

ASSOCIATION OF INDIAN ORGANIC INDUSTRY

## ONLINE TRAINING ANNOUNCEMENT


AIOI is organizing a 30 Hours online Training on "Development and Establishment of Organic certification programes for compliance to NPOP Standards, NOP & ISO 17065."

*Interested organizations/companies may apply at aioi.org.in*

For more information contact us at:

Memebrservices@aioi.org.in
Corporate@aioi.org.in

91-11-43602167