



Role of Indian Standards for Sustainable Soy in Soy Value Chain



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Transform and Turn Around***

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WHY SOY IS IMPORTANT FOR INDIA

Soybean contributes to India's goals of food security, farmer prosperity and sustainable agriculture

Economic Importance

Farmer Livelihoods: Contribute towards improving rural incomes.

Employment & Industry:

Employment and industry opportunities around value-addition and processing

Foreign Exchange Earner:

Exports of defatted soy meal strengthen forex reserves.

Nutritional Importance

Contribution in Addressing Malnutrition: Affordable protein source for low-income groups.

High-Quality Protein: ~40% protein; contains all essential amino acids.

Nutrient-Rich: Source of healthy fats, fiber, iron, calcium, and vitamins.

Versatile Foods: Soy milk, tofu, soy nuggets, flour—ideal for vegetarian diets.

Agricultural Importance

Soil Health: Fixes nitrogen, lowering fertilizer needs.

Cropping Intensity: Fits well in rotations like *soybean-wheat*.

Climate Resilience: Performs well under rainfed and variable conditions.

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Key Sustainability Issues in India's Soy Landscape

1. Productivity & Technology Gaps

Large yield gaps due to low adoption of improved crop production technologies

Poor access to quality seeds and other critical inputs

2. Demand-Supply Imbalance

Underutilization of domestic soybean crushing capacity

Heavy reliance on edible oil imports despite strong production base

3. Environmental Challenges

Increasing climate-related risks (irregular rainfall, droughts)

Heavy use of chemicals, Soil degradation and declining soil fertility

Water scarcity and inefficient irrigation practices

4. Socio-economic Constraints

Predominance of smallholders with limited livelihood security

Complex and fragmented soy supply chains



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KEY CHALLENGES IN THE UPTAKE OF SUSTAINABILITY FRAMEWORKS

Lack of consumer awareness and market uptake of Sustainability compliant food products

Sustainable production is skewed towards more developed countries

Farmers income is increasing however more improvement is needed & Price premium related issues

The high cost of implementation and certification results into exclusion of smallholders

Lack of Mandatory Regulations and Enforcement

Multiple standards for single commodity leads towards duplication of efforts

Lack of enabling Government policies

Lack of use of traceability solutions and related tools

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Why National Standards for Sustainability

National standards are well aligned with the local conditions to ensure the sustainability with-in the supply chain

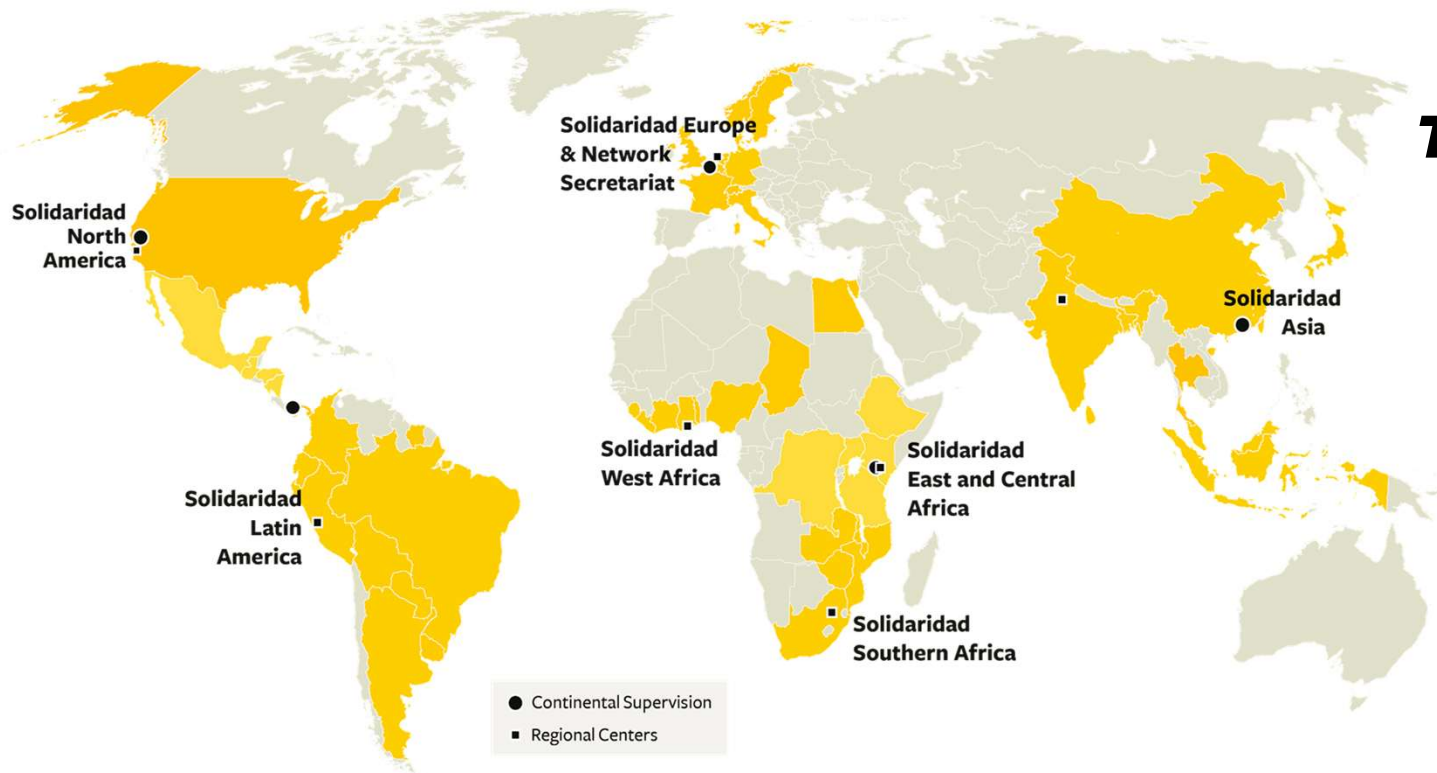
The National Standards provides

- ☐ Cost effectiveness
- ☐ Adapted to local conditions, requirements, laws and legislations
- ☐ Enhance international competitiveness of Indian Industries
- ☐ Aligned with Government's priorities, policies and agenda



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**GLOBAL CSO PROVIDING INNOVATIVE
SUSTAINABILITY SOLUTIONS FOR LAST 55 YEARS**



**WORKING IN 52
COUNTRIES WORLDWIDE**

**WE WORK
THROUGHOUT THE
WHOLE SUPPLY
CHAIN TO MAKE
SUSTAINABILITY
THE NORM**



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OLD ROOTS OF 55 YEARS



1969-80

Starts in NL & supports farmers in South America



1996

Launched world's biggest Fair Trade Fresh Fruit company



2002

World's first digitally traceable coffee and textile



2012-14

Developed 7 National Sustainability Standards: World Record



1988

Fair Trade was founded by Solidaridad



2001

Launched Kuyichi: Organic Fair Trade Denim Company



2006-08

Co-Founded Global Round Tables



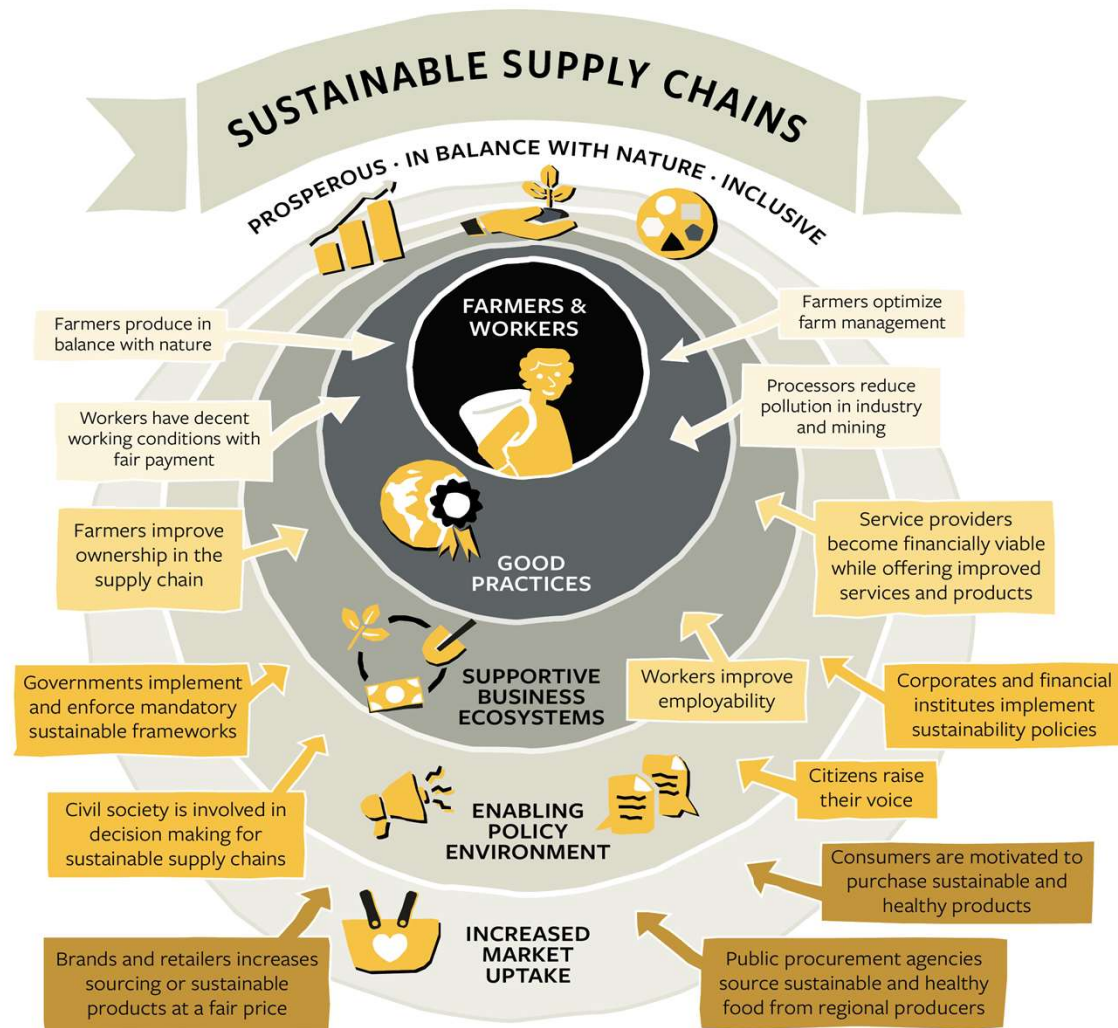
2021

Regenerative Farming

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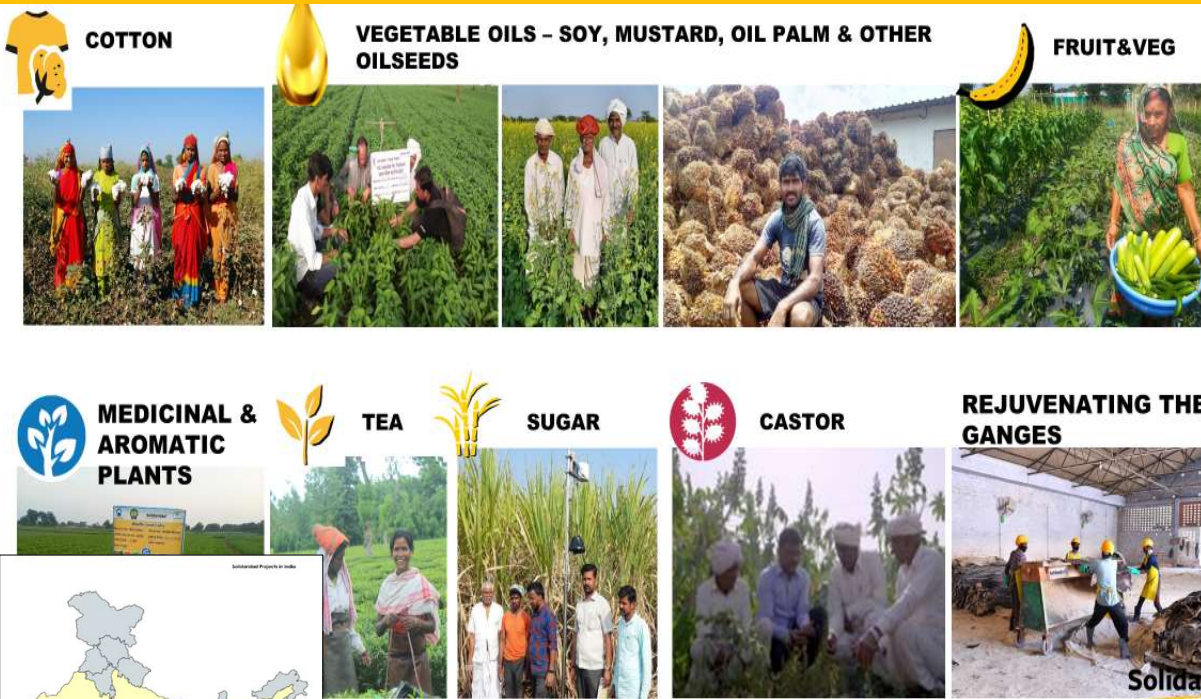
IMPLEMENTATION STRATEGY

SUSTAINABLE SUPPLY CHAINS THROUGH FOUR INTERCONNECTED LEVELS



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Solidaridad Promotes Sustainable Supply Chain Across Various Agri Commodities in India



- ❑ We are recognized as knowledge resource agency for sustainability solutions
- ❑ We work towards improving supply chain efficiency and inclusivity of smallholders in the supply chain
- ❑ We are expert in on-ground implementation of public-private partnerships programmes for sustainable agriculture and livelihood of smallholder farmers

- ❑ We are working with around 1.5 million farmers Across Various Cropping Systems in 15 States of India and preparing them for Sustainable & Climate Smart Production

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SOLIDARIDAD'S STRONG PRESENCE IN MADHYA PRADESH

- ❑ Solidaridad is working with around **280000 farmers** in the state of Madhya Pradesh & Rajasthan
- ❑ We have a base of **105 Farmer Producer Organizations (FPOs) under Bharatkhand Consortium**
- ❑ Strong base of experts and field extension team (**50+ extension team members, 30 experts are on-ground**)
- ❑ **Well established field training centers, offices** and farm field schools across 15 districts
- ❑ **Strong linkages with key government agencies and technical knowledge institutions**

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STRATEGIES FOR SUSTAINABLE FOOD PRODUCTION

1



Model Farms and Farm Field Schools

Model Farms are set-up to facilitate “Lab to Lands” & Farm Field Schools are installed for regular extension support to farmers

2



Digital Tools for Precise Advisory

The Automatic Weather Stations and SMART Sensors are installed in the field to provide precise weather and crop based advisories to farmers on their mobile phone

3



Farmer Producer Organisations, FPOs

The FPOs are supported to ensure access and availability of quality inputs, seeds, improved machines and market linkages

4



Diversification through Cropping System Approach

The diversification is facilitated for enhanced income of farmers and build their adaptive capacities towards climate change

5



National Sustainability Standards

The National Sustainability standards like ISSS are being promoted to ensure socio-economic and environment friendly sustainable production and trade



We are closely working with the key ICAR institutes to facilitate “lab to lands”

Solidaridad Sustainable Vegetable Oils Mission

1. Strong Partnership with Premier Edible Oil Industry Associations and Government

The Solvent Extractors' Association of India (SEA) premier Edible Oil Industry Association of India
The Soybean Processors Association of India (SOPA) premier soybean industry association of India
ICAR – Indian Institute of Soybean Research
ICAR – Directorate of Rapeseed – Mustard Research
ICAR – Indian Institute of Oil Palm Research
ICAR – Indian Institute of Soil Science
Department of Agriculture and Farmers Welfare
Krishi Vigyan Kendras (KVKs)



3. Sustainable Oil Palm Prog.

- We are working towards the Government of India's Ambitious Mission of Self-sufficiency in Edible Oils
- In the year, 2017, SEA and Solidaridad with the support of Indian Institute of Oil Palm Research (IIOPR), SOPOPRAD and many industry stakeholders developed India's own standards for sustainable palm oil – IPOS
- Overall aim is to ensure sustainable production and expansion of oil palm, as govt of India is ambitious for oil palm expansion under NMEO-OP

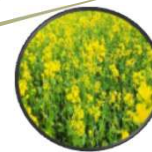


Strong presence in all the major veg oil producing geographies. Our contribution in veg oil sector is well recognized by the stakeholders



2. Soy Based Cropping System

- We are implementing the large scale farmers support prog within the soy based cropping system
- 300000 smallholder farmers are supported
- Association with the key soybean processing industries i.e. ADM Agro, Vippy Industries Ltd., Sonic Biochem and Bio Nutrients etc.
- Strong field base and stakeholders network
- Crop diversification is promoted with-in soy cropping system to ensure better income and resilience of smallholder farmers



4. Mustard Model Farms

- The Solvent Extractors' Association of India (SEA) and ICAR – Directorate of Rapeseed – Mustard Research are engaged for their support under mustard model farms (since year 2019)
- Started with 50 model farms in Rajasthan in the year 2019 and extended upto 3500 model farms in the states of Rajasthan, Madhya Pradesh, Punjab, Uttar Pradesh, Karnataka (around 125000 farmers are supported) till 2023-24
- Significant increase in yield (53% increase in the productivity of mustard)
- Proof of concepts are developed for replacing cereals (paddy/wheat) with Mustard (as part of govt's focus on crop diversification)
- A multi-year plan is developed in consultation with the Govt of India for a Mega programme on Mustard Mission

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INDIAN STANDARD FOR SUSTAINABLE SOY (ISSS)

- ❑ The Indian Standard for Sustainable Soy (ISSS) is developed by Solidaridad, ICAR-Indian Institute of Soybean Research (IISR), The Soybean Processors' Association of India (SOPA), Indian industries, businesses, producers and relevant authorities.
- ❑ The rationale behind standard is that it is better adapted to the local context and more cost efficient and therefore more applicable to smallholders in India.
- ❑ The standard provides India's own sustainability benchmark for sustainable soy production and trade.



- ❑ Solidaridad is promoting sustainability in soybean cropping system in Central India with around 200000 farmers



A group of 10,151 farmers are prepared and successfully certified by the third-party audit agency under the Indian Standard for Sustainable Soy (ISSS)



TIMES OF INDIA

THE TIMES OF INDIA, INDORE (MONDAY, 16 DECEMBER 2019)

New framework to enhance productivity of soyabean

Government Nod Will Be Sought For Implementation

Times News Network

Indore: Soybean Processors' Association of India (SOPA) in collaboration with Indian Institute of Soybean Research and an international civil society organization headquartered at The Netherlands is working on developing a framework aiming at enhancing soy productivity, global trade and competitiveness in the international market.

A team of experts are looking at advantages and pain points at regional level from cultivation to trade to come up with Indian standards for sustainable soy that is aimed at doubling farmer's income and making India self-sufficient in soybean. India is fifth largest producer in soybean and stands fourth in total area coverage globally but has very

DIVIDENDS OF THE INITIATIVE

- Will bridge yield gap through sustainable crop production practices
- Will increase average productivity in India that hovers around 1.3 tone per hectare to around 2 tone per hectare
- Will make use of latest technology and best agricultural practices
- Will enhance domestic availability of edible oils through higher production of soy and enhance livelihood of farmers
- Will decrease dependency on imports of edible oils

low productivity in comparison to other producing countries. "Indian standards for sustainable soy can be game changer in transforming domestic soy sector. Development and implementation of such national sustainability standards for soy will provide potential opportunity to contribute to

wards addressing issues of productivity and income of smallholders' livelihood security and related sustainability challenges" said DN Pathak, executive director, ICARA. Madhya Pradesh is largest soybean producing state in the country with several large exporters of soybean meal

operating from financial capital of state, Indore. The committee of experts is collecting various data on soybean cultivation area on regional level and will be then presented to government for implementation at around level by means of government agencies, farmers group, social organisations and processors.

Suresh Motwani, general manager soy and palm oil at the international civil society organisation working on sustainable supply chain said, "The Indian standards for sustainable soy would potentially address key sustainability concerns of Indian soy sector while fulfilling commitment of Indian soy industry towards sustainability." Motwani said this framework will potentially help in achieving sustainable production, social well-being, economic growth, sustainable business performance and ecosystem conservation.

Experts said sustainable measures will boost soybean exports by improving exports and quality of product.

Key Principles of ISSS



WHY TO PROMOTE SOY FOOD IN INDIA

1. Nutritional and Health Security

Soy is a rich source of high-quality and affordable plant protein and all essential amino acids.

Helps combat protein-energy malnutrition.

Rich in iron, calcium, vitamins, and omega-3 fatty acids, supporting balanced diets and good health

2. Consumer Awareness & Demand Potential

Rising health-conscious urban consumers and growing vegetarian market create a huge potential for soy-based products

Awareness campaigns can transform soy from an “industrial crop” to a nutritious food.

3. New Livelihood and Entrepreneurship Opportunities

Expanding soy-based food markets create new livelihood and entrepreneurship opportunities, particularly for women’s groups and small processors.

Adds value to domestic soybean production and strengthens local supply chains.

4. Sustainability & Climate Resilience

Soy foods have a lower environmental footprint compared to animal-based proteins.

Encourage sustainable consumption aligned with national goals on nutrition, health and climate.

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GOOD FARMING - GOOD FOOD

“Sustainable Food and Nutrition Security and Transforming Smallholders’ Livelihood in Madhya Pradesh”

Pathways for Smallholders Livelihood, Food and Nutritional Security

Pathway 1: Availability and affordability of soy and vegetables at farm and household level

Pathway 2: Availability, affordability and accessibility of nutritious soy products to the rural areas

Pathway 3: Awareness raising to stimulate consumption of nutritious soy products and vegetables

Project Partners & Stakeholders



Rijksdienst voor Ondernemend Nederland

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Key Stakeholders



Key Outcomes

- **90,021 vulnerable families (including school going children) with increased access to and consumption of nutritious foods, especially nutritious soy products and vegetables**
- **40195 smallholder farmers with around 29.5% increase in income due to improved yields, crop diversification and market access**
- **200 (micro)entrepreneurs enabled and supported around nutritious food processing**
- **1242 Mid Day Meal Cooks and 509 Anganwadi Workers trained for preparing nutritious soy food products & improving nutritional status of meal**



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GOOD FARMING - GOOD FOOD

Agri Nutrition Resource Center

- ❑ The Agri Nutrition Resource Center is an initiative Good Farming – Good Food programme
- ❑ The center is designed to bridge the gap between nutrition and agriculture, fostering a healthier and more sustainable society
- ❑ This collaborative platform brings together various stakeholders, including government institutions, research organizations, policymakers, nutritionists, businesses, farming community as well as consumers, with the aim of improving the nutrition outcomes and promoting nutrition-sensitive agriculture
- ❑ By fostering collaboration, innovation and education on nutrition, it would play a crucial role in addressing the challenge of malnutrition while promoting sustainable and resilient agricultural systems around nutrient rich crops



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Training of Aanganwadi Workers at Solidaridad Agri Nutrition Resource Center, Bhopal

- ❑ We trained 560 ICDS AWW at our Agri Nutrition Resource center, each batch comprised of around 25-30 AWW.
- ❑ The classroom and practical sessions were organized by the subject experts on various issues and topics around nutrition.
- ❑ Similar training programmes we are planning to organize across various Districts of Madhya Pradesh.



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“Good Farming – Good Food”

Soy Based Nutritional & Health Awareness Among Rural Women of Madhya Pradesh

Cadre of Trained Nutrition Experts for the Delivery of Nutrition Knowledge and Practices among Rural Women



804 school meal chefs trained on nutrition-favorable cooking methods including the preparation of soy food and vegetables in school and Anganwadi meals



Nutri Sakhi for Household Level Nutritional Awareness

- ❑ “Nutri-Sakhis” are the key element for the successful implementation of the awareness raising strategy
- ❑ The trained cohorts of Nutri-Sakhi’s facilitate broad-based awareness in rural areas about nutrition and soy food processing and its consumption at household level
- ❑ They are facilitating culinary classes and its demonstrations with household chef and MDM cooks
- ❑ They enable acceptability towards the actual consumption of nutritious soy food and vegetables

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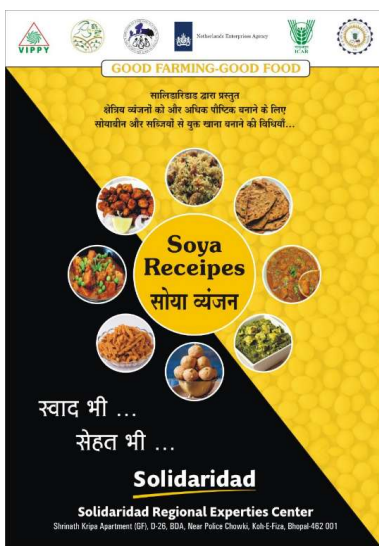
MASS COMMUNICATION FOR AWARENESS CREATION ON SOY FOOD CONSUMPTION



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CULINARY CLASSES AND DEMONSTRATIONS OF RECIPES USING SOY FOOD FOR HOUSEHOLD AND MID DAY MEAL SCHOOL CHEFS

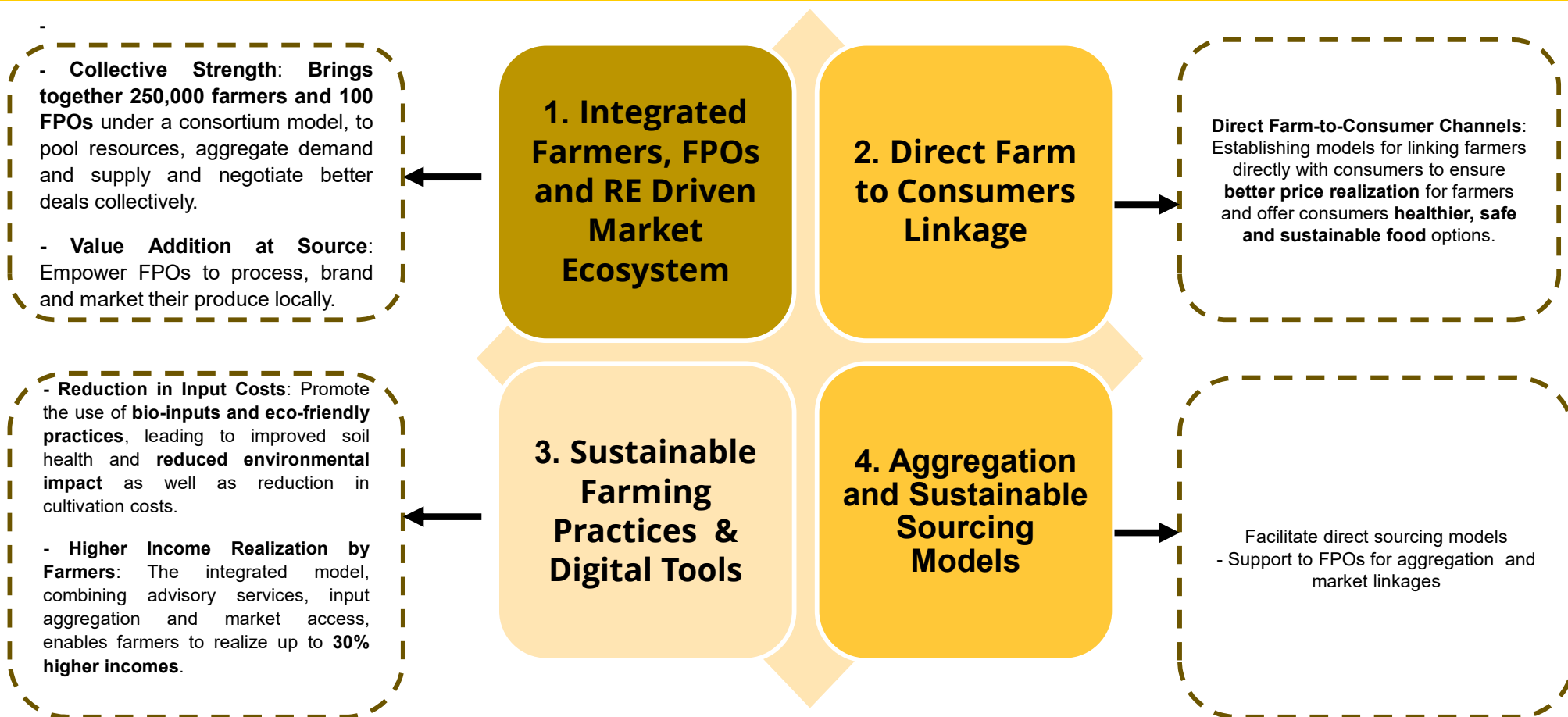
A total of 1242 school meal chefs and 509 anaganwadi were trained for soy food preparation in schools meals



- ❑ The objective of such training program is to raise awareness about the importance of soy and vegetables in daily food intake for promoting good health among women and school-going children and demonstrate the preparations of selected food items including soy and vegetables for the Mid Day Meal Chef.
- ❑ The technical sessions are organized by our nutrition expert wherein the importance of Soy as an excellent protein and iron source was explained to the participants. The participants deliberated on the options for including soy food items (chunks, flour) in the existing MDM menu at no additional cost

Farm to Consumers

BUILDING LOCAL FOOD SYSTEMS THROUGH BHARATKHAND FARMERS' COMPANY



Local Value Chain Development and Market Linkage through Bharatkhand Food MART

Promotion of Local Level Value Addition:

- i. With the technical knowledge support from ICAR, we are introducing and promoting innovative technologies and tools for value chain development for soy based locally processed food products
- ii. Local processing and value addition helps farmers to realize better price for their crops and improves the profitability
- iii. Installation of mini processing units enable farmers to process their produce without investing in full-scale infrastructure

Bharatkhand Food Mart: Provides market-place for sale of soy food and making a direct connect with consumers





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**STAKEHOLDER ANNOUNCEMENT
& INVITATION**

SoYA Tea Café & Nutri Store

*From Assam's Gardens & MP's Fields –
A Cup for the Future*

JOIN HANDS WITH US

- Elevating Assam's small tea growers (STGs)
- Supporting MP's soy smallholders
- Creating a café + retail + mobile cárt model
- Building networks & partnerships

JOIN HANDS WITH US

#SoYATea /AssamMPFusion Solidaridad
#SOPA SustainableNutrition SmallholderEmperwe

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Way Forward

TOWARDS SOLIDARIDAD STRATEGIES FOR SUSTAINABLE TRANSFORMATION OF SOY SUPPLY CHAIN

1 A platform of micro soy food entrepreneurs need to be created, Bharatkhand may take a lead with the support of SFPWA

2 Programme like Good Food – Good Nutrition & Health should be supported by Businesses through their CSR funds

3 Mass awareness campaign is required to promote goodness of soy food and its health benefits

4 The entrepreneurs around soy food should be specially encouraged in Madhya Pradesh being the largest soy producer in India

5 A task force is to be formed for lobby and policy level issues around soy food

CHANGE
THAT MATTERS

Questions/Suggestions/Additional Information

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