



WORLD SUSTAINABLE DEVELOPMENT SUMMIT 2023

MAINSTREAMING SUSTAINABLE DEVELOPMENT AND CLIMATE RESILIENCE FOR COLLECTIVE ACTION

February 22-24, 2023
New Delhi



Title: Achieving food security and climate resilience—Learnings from Sustainable Agriculture Initiatives

Date: 23rd February 2023

Time: 14.00 – 15.30 hrs

Venue: Silver Oak II, India Habitat Centre

Background

Indian agriculture is unique, with more than 50% of its population engaged in farming for their livelihoods. The agriculture sector contributed more than 17% of the Gross Value Added (GVA) during 2019-20. The sector has witnessed three major paradigm shifts over the years after independence. During the 1960s and 1970s, India adopted the Green Revolution, which mainly aimed to increase staple food production (primarily rice and wheat) by introducing high-yielding varieties, chemical-based land management, and bringing more arable land under irrigation. During the early 1990s, market-oriented reforms were adopted by the Indian agriculture sector, and in recent years the sector has been moving towards environmental sustainability.

Still, there is a long way to go, and it is dependent on political will and overall support. Amidst these changes in the agriculture sector, the sector growth rate is around 2.9% per annum, and the income of agricultural households has shown a marginal increase of 5.6% between the Financial Years 2012-13 and 2015-16. At present, the three major issues faced by the sector are a) heavy dependency on natural resources and negative impact on ecosystems; b) poor livelihood security and vulnerability of smallholders to climate change that has snowballed into an agrarian crisis; and c) policy gaps, incentives and poor investments in rainfed agriculture compared to irrigated agriculture.

There are several ongoing initiatives in India by the government and civil society to address these issues. In 2014, the Government of India launched the National Mission for Sustainable Agriculture (NMSA) to improve the resource efficiency and sustainability of Indian agriculture and to improve the livelihoods of farmers. Currently, the government is preparing the National Mission for Natural Farming (NMNF) to promote natural farming to address environmental impacts and resource dependency. Along with the government, civil society organizations, bilateral and multilateral donors are also contributing to these efforts. The Government of Norway has been contributing to the promotion of sustainable agriculture development for several years in India. Currently, there are two major initiatives supported by the Government of Norway. One is with the involvement of the Norwegian Institute of Bioeconomy Research (NIBIO), the National Rice Research Institute (NRRI), the Odisha University of Agriculture and Technology (OUAT), the MS Swaminathan Research Foundation (MSSRF), International Water Management Institute and Assam Agriculture University (AAU). Second, Norway's International Climate and Forest Initiative (NICFI) is supporting the Food and Land Use Coalition India operations towards sustainable food system transformation.

RESILIENCE project initiatives and impact

The RESILIENCE project titled “Building Climate Resilience of Indian Smallholders through Sustainable Intensification and Agroecological Farming Systems to Strengthen Food and Nutrition Security,” was conceptualized with the overarching objective to improve agricultural productivity, livelihoods as well as adaptive capabilities of smallholders’ to climate and economic changes, through developing resilience among small and marginal farmers in the Odisha and Assam.

Initiatives: Vulnerability assessment and agroecological resource mapping of the study sites were done; baseline indicators were identified; prioritisation of climate smart agricultural practices (direct seeded rice, system of rice intensification, crop diversification, site-specific nutrient management practices, and integrated pest management) were done with the survey from expert opinion as well by focussed group discussion with farmers. After that, demonstration and validation of farmer-led climate-smart agriculture (CSA) technologies have been done. A climate-smart village model and farmer-to-farmer (F2F) self-sufficiency seed village model have been developed. Various capacity development programmes including digital tools, have been promoted. The modern Information and Communication Technology (ICT) based tools are leveraged to facilitate the knowledge management process on the site-specific, climate smart agricultural technologies introduced to manage the key climatic risks and strengthening the resilience capacity of the farmers. These tools (Voice SMS and SMS, Phone-in programme, Helpline services, Audio-video conferencing, Video based learning, Plant clinics, Use of Apps like RiceXpert, and social media such as WhatsApp) are contextualized to the user groups and complement each other in strengthening the process of knowledge management. The process is institutionalized through a platform, Village Knowledge Centres (VKC), a gender sensitive and community-centric approach, managed either by a Panchayat Raj Institutions or Farmer Producer Organizations or Krishi Vigyan Kendra’s, empowering the community with timely knowledge on agriculture and livestock, including, inputs, marketing, and rural development.

Impact of RESILIENCE project: Overall, the Farmers’ income has increased upto 37% by 28-34.5% increase in productivity and 16-20% reduction in cost of cultivation. The development of women Self Help Group (SHGs) has increased women’s participation in farm-level decision-making and enhanced their income by training programmes for various income generating activities which are also linked under the Odisha livelihood mission programme. Farmers’ participation in local institutional activities has improved. The *liaising* has been done with various Govt schemes such as *Biju Krushak Vikas Yojana (BKVY)*, *Pradhan Mantri Krishi Sinchai Yojana (PMKSY)*, *Gramin Krishi Mausam Sewa etc* through farmers are benefitted. Odisha Government has integrated CSA inputs from the project into a state-level climate action plan.

FOLU India Sustainable Agriculture Initiative (FISAI)

FISAI aims to build evidence for the widescale implementation of sustainable and regenerative agriculture in India. Through two flagship programmes under FISAI (Sustainable Rainfed Agriculture programme and Synergizing Policies and Actions programme), FOLU India aims to support the food and nutrition security of the country while ensuring livelihood improvement and social inclusion. The fundamental framework on which these two programmes are built is an agroecological transformation from farm to food system level, which has been mapped with the provisions of DFI report strategies and NMSA principles so that governments can easily implement regenerative agriculture within the existing policy frameworks in India.

These two programmes have two different approaches with the same principles. One (FOLU India Sustainable Rainfed Agriculture programme – FISRAP) takes a bottom-up approach. This programme motivates the farmers at the grassroots to convert into sustainable and regenerative agriculture and persuades the governments to support the same within the existing policy framework. Being a farmer-led process, this project aims to transform local villages into sustainable and regenerative agriculture villages. The other programme (FOLU India Sustainable Agriculture Programme – Synergizing Policies and Actions - FOLU India SAP – SPA) supports one of the state governments to implement sustainable and regenerative agriculture at district level and convert them into sustainable and regenerative agriculture districts. The state government will implement the programme with support from FOLU.

The uniqueness of this initiative is that it develops a community-led model for sustainable and regenerative agriculture in two gram panchayats (village councils) in three states and a government-led model in selected districts in one state. These models will provide evidence for the benefits of sustainable and regenerative agriculture for farmers and the ecosystem. These model landscapes will be a living laboratory for various stakeholders to learn the process of transforming towards sustainable and regenerative agriculture and then replicate and scale up successful practices to similar agroecological zones.

About the Session

Agriculture transition needs to be a continuous process, learning lessons from earlier stages. The Green Revolution has developed successful models of providing knowledge and services to farming communities. When the country now plans to move to natural farming / regenerative agriculture to overcome the problems of the Green Revolution, it should not be considered as a completely different track of agriculture operation or a backward-looking process; instead, it should be conceptualized as a natural transition to a better situation that the time demands. The session will depict how the natural farming initiatives can learn from the successful models of the existing sustainable farming programmes in the country, based on the two case studies in India supported by the Government of Norway.

The RESILIENCE project initiative has established models for agricultural diversification, knowledge transfer, and strengthening forward linkages, which can be used in the FISAI for sustainable and regenerative agriculture in selected landscapes in India. The session will discuss the linkages, parallels, and complementarity between these two initiatives.

Guiding Questions

1. What factors need to be considered when India moves towards natural farming?
2. What are the challenges in the transition towards just and sustainable food systems based on natural farming or sustainable agriculture principles?
3. How best can we use our learnings from the sustainable agriculture initiatives in the transition towards natural farming?

About the World Sustainable Development Summit (WSDS)

The World Sustainable Development Summit (WSDS) is the annual flagship Track II initiative organized by The Energy and Resources Institute (TERI). Instituted in 2001, the Summit series has a legacy of over two decades for making 'sustainable development' a globally shared goal. The only independently convened international Summit on sustainable development and environment, based in the Global South, WSDS strives to provide long-term solutions for the benefit of global communities by assembling the world's most enlightened leaders and thinkers on a single platform. The 22nd edition of the annual flagship event is being held from 22-24 February 2023 in New Delhi. The Summit deliberations will focus on the umbrella theme: Mainstreaming Sustainable Development and Climate Resilience for Collective Action.