



Farm-based Interventions Co-lab

India Livelihoods Collective

Founding Partners



Thematic Partners



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Strategic Partner



Innovation Partners:



Livelihoods Action Series

The Livelihoods Action Series are a set of ideation modules addressing various livelihoods challenges. Through these modules, the India Livelihoods Collective, focuses on exploring co-creation and amplification opportunities for benchmarked livelihood interventions through peer-exchange and brainstorming to device innovative strategies and action points to stir collective action in the livelihoods sector.

India Livelihoods Collective

India Livelihoods Collective is India's first non-financial and non-funding commitment based collaborative platform to leverage cross-sectoral expertise of organizations, enabling collective action towards creation of sustainable and local livelihoods in rural and urban India.

For more information please visit: www.ilc.org.in

Curated and Published

By

India Livelihoods Secretariat

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Introduction:

Agriculture, with its allied sectors, is the largest source of livelihoods in India. Approximately 2/3rd of the population depends primarily on agriculture for its livelihood, majority of it being the small or marginal farmers. Despite the high reliance on agriculture for livelihoods, its contribution to the GDP has been relatively lower compared to other sectors. Agriculture in India has achieved grain self-sufficiency, but the production still remains resource & labour intensive, cereal centric and regionally biased. Not only does this raise serious sustainability issues, it also restricts incremental growth of income through agriculture. The onset of COVID-19 pandemic has brought up multiple challenges for the farm-based livelihoods. While the farmers have suffered losses due to the disruptions in the value chain, we also see a rapid increase in agricultural employment, disguised in nature, due to the large reverse migration. At the same time, the demand for produce has decreased due to the constraints on the midstream and downstream of the food supply chain and the reduction in consumers' real incomes in the crisis. Thus, it is crucial to revive the farm based livelihoods as it supports the largest portion of our population.

This document provides a summary of the proceedings of the Module-I: Farm Based Interventions Co-Lab under the Livelihoods Action Series organised by India Livelihoods Collective. The event took place virtually on 22nd June, 2020, between 3.00-6.00 PM. The aim of the series is to explore co-creation and amplification opportunities for benchmarked livelihood interventions through peer-exchange and brainstorming, to device innovative strategies and action points that stir collective action in the area of farm-based livelihoods.

Objectives:

- Understanding the key challenges for farm-based livelihoods
- Benchmark solutions implemented by various partners across India addressing specific challenges
- Exploring mutual synergies between partners to device potential for co-creation and scale-up
- Streamlining the co-creation and scale-up, leveraging the policy response, partners' network and alliances and scalability opportunities of projects within the current livelihoods landscape
- Defining the role of the collective in implementing the strategies

Overview:

The module was conducted on an open virtual platform and attended by 180+ participants. The event included experience sharing by 3 special speakers with expertise in the domain and best practice sharing by 17 organisations including a mix of NGOs, impact investors, start-ups and corporates, who presented their farm based programmes, followed by an ideation session on mutual synergies and future plan of the forum.

The event was initiated with the brief introduction about the Livelihoods Action Series and the scenario of farm-based livelihoods in India, presented by **Ms. Bhagyashree Patil, Coordinator, India Livelihoods Collective.**

The presentations were divided into three sessions – (i) Holistic Farming Practices and Institution Building, (ii) Ag-Tech Interventions and (iii) Knowledge Sharing, Capacity Building and Market Linkages. A summary of the key aspects discussed under each section follows next.

Session Plan

Time	Sessions	Speakers
3.00-3.05 PM	Introduction & Context Setting	Ms. Bhagyashree Patil, Coordinator, ILC
3.05-3.55 PM	Holistic Farming Practices and Institution Building	Mr. Debanjan Ghatak, Executive Projects, PRADAN
		Mr. Shantanu Dutta, Team Lead-Odisha, CInI
		Mr. Allwin Charles, CSR Regional Head - South, Dalmia Cement Bharat Ltd.
		Mr. Mangesh Wange, CEO, Swades Foundation
		Mr. Pramathesh Ambasta, CEO, BRLF
		Mr. Yogesh Sawant, Senior Thematic Programme Executive, BAIF
		Mr. Ramesh Savalia, Consultant, Arvind Foundation
		Ms. Tabassum Momin, Program Manager - WCRF, Swayam Shikshan Prayog
3.55-4.15 PM	AgTech Interventions - Digitisation, Automation and Data Driven Farming	Mr. Kunal Prasad, Co-founder & COO, CropIn Technologies
		Dr. Saket Chattopadhyay, Manager, Indigram Labs Foundation
		Mr. Sharad Vyas, Head- Credit, Risk ,Product and Policy , Jai Kisan
4.15-4.40 PM	Knowledge Sharing, Capacity Building and Market Linkages	Ms. Shivani Mehrotra, Manager, Apollo Tyres Foundation
		Mr. Shaibal Chaterjee, Head-Market Facilitation, ISAP
		Mr. Debarshi Dutta, Executive Vice President & Global Head Marketplace, BPC Banking Technologies
		Mr. Rajnish Kumar, Manager, MicroSave Consulting
4.40-5.20 PM	Special Speakers	Mr. Suman, Manager, Dr. Reddy's Foundation
		Mr. Amit Sinha, Co-founder, Unnati
		Mr. Amit Kumar Singh, Country Representative India, Tanager International
5.20-5.40 PM	Ideation on mutual synergies, solutions for farm based livelihoods	Mr. M. V. Ashok, Former CGM, NABARD
5.45-5.55 PM	Approach plan for what next and how can the Collective play a role?	
5.55-6.15 PM	Open session for partners for one-on-one query or detailed discussion	

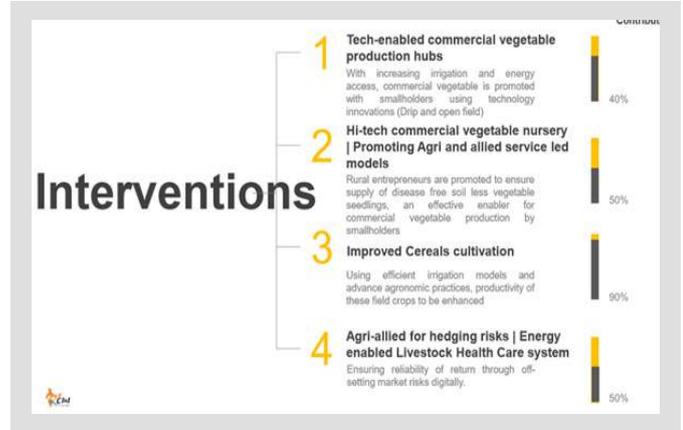
Session 1: Holistic farming practices and institution building

Visit <https://youtu.be/C8OW5VA1j2s> to view the session

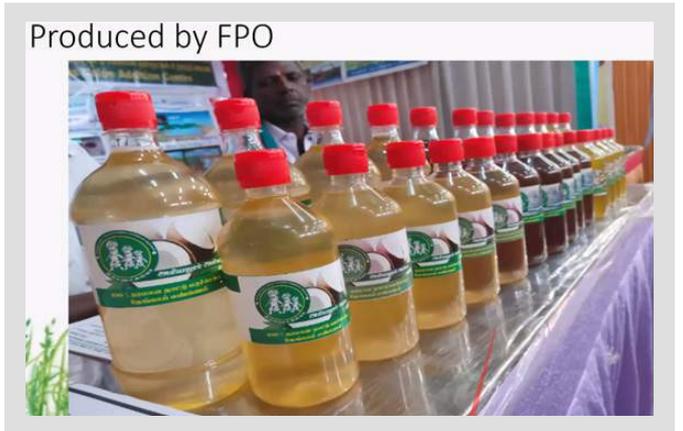
Visit <https://bit.ly/2YZZbgb> to access PPT deck

This session was represented by 8 partners of the ILC who are working on enhancing farm-based livelihoods through multi-dimensional holistic models that incorporate various stages of the value chain through community engagement and institution building.

Mr. Shantanu Dutta, Team Lead-Odisha, representing Cini started the session by introducing their project Lakhpati Kisan. He stressed upon the missing links in agriculture value chain with the lack of market information and linkage being the most important one. Cini is undertaking interventions like tech-enabled commercial vegetable production hubs and trying to implement a layering of livelihood interventions through development of agricultural and agri-allied services to ensure an irreversible impact. Along with building market linkages, holistic farming projects are focussing on sustainable solutions to ensure soil fertility and long-term results.



Mr. Allwin Charles, CSR Regional Head – South from Dalmia Cement Bharat Ltd. shared how the foundation is addressing the issue right from soil testing before production to building market linkages. Through soil testing they found that excess urea and potash in soil make it unsuitable for crops. Efforts are being made to modify chemical using pattern and introduce organic means. These holistic interventions have led to 25% better yield, reduced expenses and a healthier soil compared to other farmers in same areas. Mr. Alwin also highlighted that farmers can gain better access to credit and services if they are organised into groups since financial institutions have more faith on organised Farmer Producer Organisations/Farmer Producer Companies.



Mr. Mangesh Wange, CEO, Swades Foundation shared the 4 E philosophy of the team – engage, empower, execute and exit. The foundation is undertaking on-farm initiatives in irrigation and orchard plantation and off-farm initiatives in dairy, poultry, goat rearing and fishing through mobilisation of community based organisation. The foundation has 1000+ Village Development Committees working towards institution building. The COVID crisis has led to reverse migration to villages.



Mr. Pramathesh Ambasta, CEO, BRLF pointed out that 60-70% Tribal migrate to cities for work due to the poor fertility and productivity of lands. Investments are being made in land and water infrastructure in collaboration with Panchayat and Govt. schemes like MGNREGA to gain long-term results by BRLF. No-pesticide management groups (NPMs) are working to provide knowledge and support to the farmers to ensure ecologically sensitive agriculture and establish a pesticide free agriculture regime. Integrated, mixed and resilient farming techniques have been introduced with climate smart practices to ensure optimum use of local resources, diversification of crops, increase yield, soil productivity and reduce input cost for the farmers.

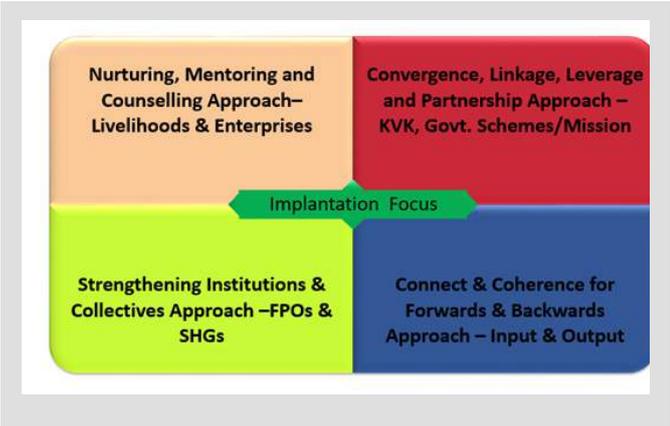
Wadi: A programme for human and eco-system well-being'

- Average Wadi area: 0.4 ha per family
- Fruit trees (center): 50 to 60
- Forestry Species (border) 250
- Intercrops/ cover crops
- Soil and Water Conservation
- Soil enrichment



The diagram shows a rectangular plot with a central area containing 50-60 fruit trees and a border area containing 250 forestry species. It also includes icons for a family, a cow, and a house, representing the human and eco-system well-being.

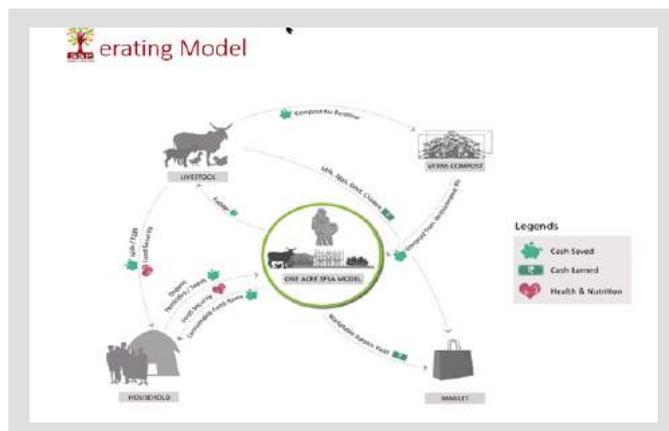
Mr. Yogesh Sawant, Senior Thematic Programme Executive from BAIF shared the 2 major initiatives of the organisation in this context – the Wadi system which is an integrated farming technique and resilient farming to reduce the losses of farmers. BAIF is also undertaking initiatives in livestock management and establishing forward linkages for farmers through 43 Cooperatives/ Farmer Producer Organizations.



Mr. Ramesh Savalia, Consultant representing the Arvind Foundation threw light on the social, financial, institutional and natural challenges being faced by the sector including mono cropping, depleting natural resources, market fluctuations, climate change issues, decreasing farm productivity and profitability, reverse migration, nutrition and the poverty nexus. The foundation believes in a nurturing, mentoring and counselling approach for the farmers and has collaborated with institutions like Krishi Vikas Kendra and State Seed Corporation to provide them knowledge and inputs support. Farming is not considered a business by farmers and they lack the entrepreneurial skills to reap the best results from it.



Ms. Tabassum Momin, Program Manager – WCRF from the Swayam Shikshan Prayog shared the organisation's initiatives for training women as farmers and entrepreneurs. The organisation is addressing the farm-based livelihood issue through interventions in vermicomposting, dairy, poultry and market linkages to reduce the cultivation costs, increase productivity and household consumption saving and income of farmers. Women Self-Help Groups are being strengthened to develop ownership and decision making among female farmers. Agri-allied sectors support farmers to increase their income.



Mr. Ravi Deshpande, Chief Programme Manager from Lupin Foundation shared the organisation's holistic initiatives in beekeeping, vermicomposting, floriculture, breed improvement in fishing and goat rearing and poultry. The organisation has created location specific livelihood hubs.



Key Take-aways from the session:

- The challenges in the farm-based livelihoods include supply chain disruptions, mono cropping, depleting natural resources, market fluctuations, climate change issues, decreasing farm productivity and profitability, reverse migration, nutrition and the poverty nexus.
- Partnerships and collaborations at all levels of value chain – pre, during and post production can help to amplify these holistic farming and institution building initiatives.

Session 2: Ag.Tech. interventions

Visit <https://youtu.be/PpXYYbfGKsg> to view the session

Visit <https://bit.ly/2ZyuY72> to access PPT deck

Ag-tech. interventions bank on technology through automated steering systems, data-driven targeted application of fertilisers and pesticides, field robots and drones, soil analysis sensors, autonomous driving – digitisation to improve the accuracy of farming practices and the corresponding output. 2 partners of the Collective and Jai Kisan shared their technology interventions and how digitisation can mitigate the challenges posed by the COVID crisis at all production and post-production stages.

Mr. Kunal Prasad, Co-founder & COO, CropIn Technologies shared interventions ranging from farm management – visibility of resources, processes and performance on field, access to credit, to packaging, processing and forecasting produce. Applications designed for farmers are reducing losses caused by the broken supply chains and supporting them to build strong market linkages. Predictive and prescriptive advisory is facilitating the establishment of climate smart agriculture and assisting the farmers in input related decisions. The session also discussed ways in which FPOs can be strengthened through Ag-tech. Using its strong network of FPOs, IndiLabs has incubated start-ups intervening in diverse stages of value chain through Ag-tech.



Dr. Saket Chattopadhyay, Manager, Indigram Labs Foundation shared a few examples including Bijak for B2B ecosystem, Intello Labs working in quality assessing and crop grading and Krishitantra which is a cost-effective soil testing kit. Fin.tech platform and initiatives for financial inclusion are providing farmers secured financing options.



Mr. Sharad Vyas, Head- Credit, Risk, Product and Policy, Jai Kisan shared the input financing services of the organisation which brings together producers, vendors, manufacturers and traders under one platform. Jai Kisan has a robust system to assess the credit worthiness of farmers and the purpose of seeking credit, and conducts a psychosomatic analysis of farmers. He also discussed the need to go digital where possible and physical where needed.; where finance will be used.



Key Take-aways from the session:

- The reducing cost of technology is an opportunity for Ag-tech. to expand and prosper.
- The Ag-tech initiatives of these organisations can assist the holistic farming and capacity building initiatives of other partners to achieve faster and more reliable outcomes.
- A partnership of these Ag-tech. initiatives and on-ground implementing partners can ensure support to the beneficiaries in times of the pandemic to overcome the supply chain losses and bring about innovative, scalable and replicable solutions.

Session 3: Knowledge sharing, capacity building and building market linkages

Visit <https://youtu.be/Owsdq1gV3g> to view the session

Visit <https://bit.ly/2O0scCs> to access PPT deck

This session was represented by 5 partners who are bringing about difference in farming by providing farmers with timely information, technology and right kind of inputs to achieve better yields. Farmers lack knowledge of quality inputs and depend on local input sellers.

Ms. Shivani Mehrotra, Manager from Apollo Tyres Foundation introduced project Navya which aims to improve the livelihood opportunities for rural women. Women are trained in livestock management and farming techniques through demonstrations and workshops conducted in partnership with Krishi Vikas Kendra, agricultural universities and other agro-based organisations and linkages with existing government schemes. ISAP has trained 6100+ agricultural graduates and has 1000 resource persons on ground through single window centres.

Problems Challenges Addressed in the Value Chain

- Addressing the issue of food security by involving more number of farmers in agriculture
- Shifting old agriculture practise to scientific practise
- Adoption of Organic farming (healthy food and good value for the food supply)
- Collective farming approach for organic farming implementation
- Bringing women in a formal space for agriculture based livelihood
- Removing middle man and promoting marketing of agri produce through FPO

Impact Achieved

- Over 5000 women are engaged in farm based livelihood
- Over 1500 of beneficiaries are implementing Organic Farming
- Formation of women based organic farming farmer producer organisation
- Around 100 women have got Organic farming certificate for marketing of organic produce
- Increase in farm yield from 15-30 %
- Increase in milk production from 20-25 %

apollotyres.com go the distance

Mr. Shaibal Chaterjee, Head-Market Facilitation, ISAP shared the idea of Agribusiness village resource centres – a hub for whatever a farmer needs- that are run by the Farmer Producer Organisations. ISAP has enabled producers to sell their products like spices, honey and papad under their own brand Dharini. Safal Fasal is a B2B e-commerce platform which connects buyers, sellers and ecosystem players like input companies, banks, value added service providers and farm equipment companies under one platform.

FPOs & Agribusiness Village Resource Centres (AVRCs)

Facilities of Agribusiness Centre

- FPO office
- Mini-warehouse
- Farm-mechanization centre
- Plant Nursery etc
- Mini-processing unit
- Input store

Facilities at HRD unit

- Primary Health Center
- Women's Skill Development Center
- Computer Education center
- Children's Recreation Center

Mr. Debarshi Dutta, Executive Vice President & Global Head Marketplace, BPC Banking Technologies shared the 'seed to market' model of the marketplace platform. The platform is providing advisory services through webinars in the times of the pandemic. Demo farms are set up under Safal Fasal to check the variety of paddy seeds and the yield they produce. Safal Fasal is a new and growing project in India with a vision to provide knowledge and services to farmers through FPOs and partnerships with other organisations. Jeevika Special Purpose Think Tank (JSPVAT) is an example of growing importance of research and documentation in agriculture.

What are we trying to solve?

Agri Sector Challenges:

Farmers:

- What seed and inputs to be used?
- What to plant and will I get a buyer on time?
- Is credit available and will I get timely payments on my produce?

Buyers:

- Who will provide quality assurance?
- Will I get the quantity required?
- Do I get in the packaging I want?
- Do I get credit period to make payment?

Our Proposition:

- Reach to Farmers through (FPOs), Agri Retailers, Foundations, NGOs, Business Correspondents, local input retailers.
- Knowledge sharing on input products and sell of quality inputs through multiple channel
- Aggregation of output produce from farmers
- Access to capital to FPOs, farmers, buyers, business correspondents through banks, NBFCs.
- Quality & Quantity produce to buyer
- "Digital where possible, physical where needed"

Mr. Rajnish Kumar, Manager, MicroSave Consulting shared the firm's initiatives in Bihar focussed at strengthening Farmer Producer Companies (FPCs) through a market oriented model, value chain transformation, stronger market linkages and negotiation with intermediaries. The project also encourages farmers to adopt a demand-based approach to avoid losses.

Program Mitra launched by **Dr. Reddy's Foundation** has led to a 49% increase in the income of farmers in Bihar. **Mr. Suman, Manager in Dr. Reddy's Foundation** shared the foundation's innovative concept of community nominated 'Lead Farmers' who take responsibility of disseminating techniques and knowledge among farmers for reducing cost of cultivation, improving access to market and a higher yield. The foundation provides technical and advisory services to farmers through partnerships with Indian Council of Agricultural Research (ICAR) Institutions, (ICAR) Institutions, universities and Krishi Vikas Kendra. Mr. Suman also highlighted the importance of integration of farm and non-farm activities to increase farmers' income.

Key Take-aways from the session:

The projects under this session highlight the growing importance of knowledge building and training in agriculture.

Such interventions look beyond the traditional on-farm practices by providing access to rich resource repository of innovative techniques, reliable networks and output-oriented practices to improve farm-based income outcomes.



Delivery model tested with 25000 farmers across multiple states

Model worked in **both irrigated and rainfed cultivation** and the major intervention related to water were crop water budgeting, soil moisture retention, micro irrigation and better water management practices

Ag. Startups, input companies and other private players in the agri eco system were engaged for **better price realisation, improved access** to market, farm implements and quality inputs

Model tested from 2016 to 2018 in 550 villages in **7 states** (AP, Telangana, UP, Bihar, Chattisgarh, Maharashtra and West Bengal)

Model covered **diversified crops** - cereal crops, cash crop and vegetable crops;

We worked closely with **local ecosystem to leverage their strengths and bring ownership**. The key govt stakeholders were KVKS, Agri universities, Agri dept, and ATMA of the concerned locations

DR. REDDY'S FOUNDATION

Experience Sharing by Special Speakers

Mr. M.V. Ashoka – Former CGM, NABARD

Visit <https://bit.ly/3eTUES6> to view the talk.

Mr. M.V. Ashoka summarised the major challenges faced by farmers in the times of COVID-19 and the role of Agri-start-ups in mitigating these. The increase in production volume affecting the – (i) aggregation and distribution of farm produce from the point of collection to the consumption centres, (ii) quality assessment of commodities in the times of e-markets and lack of storage capacities which has led to a 40% loss in non-perishable items and (iii) a 30% loss in perishable items. He

expressed that Farmer Producer Organisations (FPOs) and Start-ups have come together to ensure the supply of essentials to the tier-1 and tier-2 cities. Some start-ups have also leveraged the issue of quality of commodities as a revenue making opportunity benefitting the consumers. Whereas, some have created scientifically managed micro-warehouses to store non-perishables. Such initiatives have led to an appreciation in price and built trust and acceptance in farmers towards such innovations. Farmer advisory for institutional credit and crop insurance is another intervention area for start-ups, wherein using satellites and soil-water data to facilitate this decision making proves effective.



Mr. Amit Sinha – Co-Founder, Unnati

Visit <https://bit.ly/3eTUES6> to view the talk.

Mr. Amit Sinha shared the philosophy behind Unnati and their vision to convert farmers into entrepreneurs. Farmers lack training to run a business and farming is often not considered a business. Unnati provides a card and mobile application to farmers that act as a wallet to store money. It fulfils the working capital needs of farmers and supports them to conduct cashless purchases. Unnati aims to provide a complete lifecycle solution to its farmers through several micro-interventions and technology to manage retail points.



Mr. Amit Kumar Singh – Country Representative, India, Tanager International

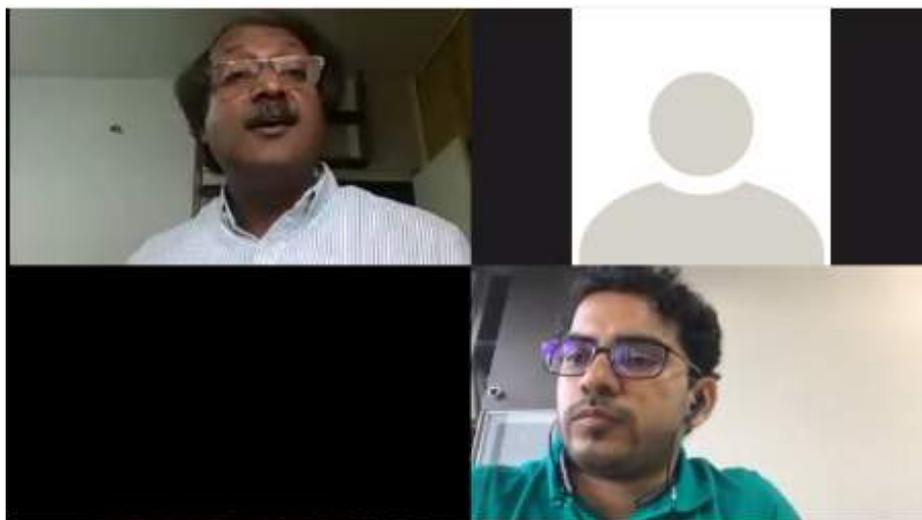
Visit <https://bit.ly/2ZyuWfs> to view the talk.

Kumar started by stressing the importance and contribution of agriculture in the Indian economy. He highlighted that the need of the hour is to make the agriculture ecosystem conducive and treat agriculture as a separate subject in Schedule 7. In coherence, Tanager India aims to strengthen market readiness of farmers through the Farmers Producer Organisations and building a connect between businesses and producers. Tanager also works towards reducing use of chemicals and introducing good agronomic practices to address the issue of food quality and safety. It has introduced the whole farm approach through interventions like crop diversification and soil testing.



Concluding Remarks and Way Forward

Visit <https://youtu.be/aSo9tKpqGX0> to view the session.



The first module of the Livelihood Action Series came to an end with an ideation session moderated by **Mr. Neeraj, Head, CSR, Arvind Limited**. The shared goal of this forum is to multiply farmers' income. The India Livelihoods Collective can play a role in developing partnerships in terms of organisations, people, processes and technology, tracking progress of these partnerships and link Government and CSR finance to these initiatives. The forum should focus on capacity building, learning theory, on-field implementation, technology upgradation and FPOs, FPCs in the coming times. The whole idea of the forum is for partners to remain independent and share their expertise for a shared, larger vision. The Collective could set a goal to announce some partners with shared goals, models or geographies coming together for a project within the next 30 days.

Mr. Bhomik Shah, Curator of ILC and CEO, CSRBOX ended the session by summarising the key insights from the module and thanking the participants and partners for the interactive and exciting beginning to the Livelihoods Action Series.

Key Take-aways from the session:

- The key challenges being faced by the farm-based sector include supply chain disruptions, mono cropping, depleting natural resources, market fluctuations, climate change issues, decreasing farm productivity and profitability, reverse migration, nutrition and the poverty nexus.
- Start-ups and Farmer Producer Organisations and Companies' collaboration can help mitigate the challenges posed by the pandemic and increase livelihood opportunities.
- There is a need to build entrepreneurial abilities in farmers who do not view agriculture as a business that requires skills and knowledge.
- Fin.Tech can play a major role in ensuring financial inclusion in farm-based livelihoods.
- The common goal of the Collective is to increase farmers' income.
- The role of the ILC is developing partnerships in terms of organisations, people, processes and technology to achieve this common goal.
- The ILC can facilitate creating partnerships in diverse geographies and bring together organisations working independently in Ag-tech., capacity building and holistic farming to amplify the impact.