



STRENGTHENING LAST MILE SERVICE DELIVERY | 5 TO SUPPORT SMALLHOLDER FARMERS IN INDIA

India is witnessing dwindling gains from agriculture for the smallholder farmers because of high cost of inputs, changing climate impacting production, fluctuating market prices of outputs, and weak delivery of services at the last mile. The value share of farmers in the commodity supply chain needs to be increased to ensure that farming remains a remunerative livelihood option. There has to be a wider acceptance of the fact that the country needs partnerships among multiple players with complementary knowledge and expertise for its agricultural development. Transform Rural India Foundation (TRIF) developed and implemented a comprehensive agricultural strategy to address the challenges that smallholder farmers face by bringing together the government, the community and the market under one platform.

In this Good Practice Note, the authors elaborate on the solutions designed for aiding the transition of subsistence farmers into prosperous farmers by making farm livelihoods more convenient and profitable so as to attract young men and women. They emphasize the importance of strengthening the rural market ecosystem through local agri-entrepreneurs anchored by community institutions for effective last mile service delivery. Further, the rural production system is enhanced by increasing the role of community institutions in planning and designing public investments. Improved market ecosystem and strengthened rural production system drives a behavioral change at community level leading to multi-dimensional changes

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Cover photo: *Training Farmers on Good Cultivation Practices*
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BACKGROUND

Small and marginal farmers holding less than one or two hectares account for 86% of India's total farmers. Their risk-taking capability is very limited and they do not normally like to experiment with their farming practices as that may jeopardise their only source of income. Lack of a strong supporting eco-system constrains farmers from adopting large scale change in their farming practices. To address this gap, in 2017 the Transform Rural India Foundation (TRIF) decided to develop and implement a

comprehensive agricultural development strategy that can enhance both the agricultural productivity and incomes of smallholder farmers.

COMPREHENSIVE AGRICULTURAL DEVELOPMENT FRAMEWORK

The comprehensive agricultural development framework has three critical pillars that enable the principle of multi-dimensional change (MDC) to manifest in the community. The interplay between the Government, Market, and Community through the public systems, rural agri-markets and community institutions determines the phenomenon of MDC (Figure 1).

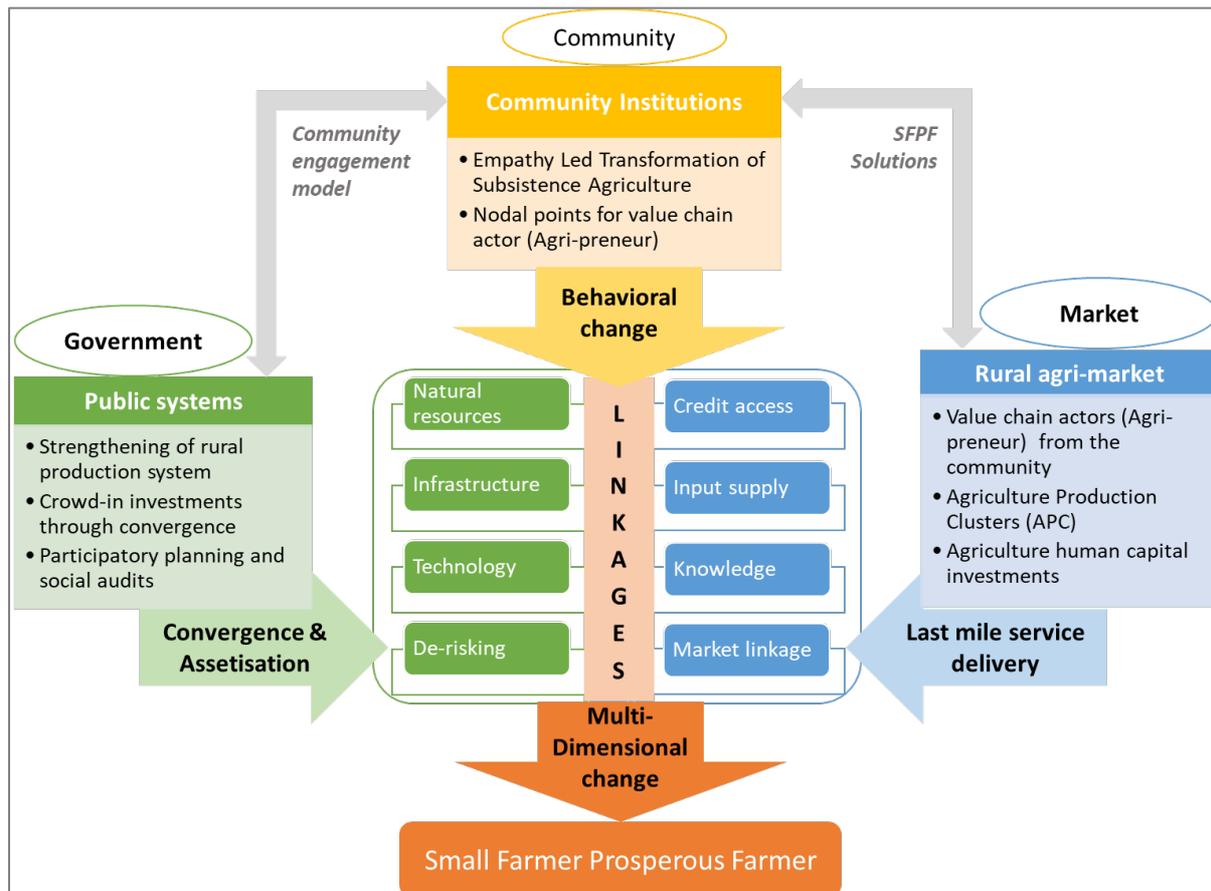


Figure 1: Comprehensive Agricultural Development Framework

On one side, the Deep Community Engagement model¹ of TRIF focuses on increasing the role of community institutions in design and effective use of public investments at the village level by bringing the public systems and community institutions together through multi-level linkages leading to behavioural change. These investments, along with strengthened rural production systems, will enable the community to access resources, create infrastructure, develop technology enabled solutions, and mitigate the risks of agricultural production systems.

On the other side, the SFPF (Small Farm Prosperous Farmer) model creates a bridge between community and market by developing agri-entrepreneurs who

are from the community and work for the community. The community institutions are positioned as the anchor for this model and act as nodal points for this value chain actor (agri-entrepreneur). These linkages enable the community to access credit, input supply, improve knowledge about agricultural practices and create sustained market linkages. These services are embedded in the profile of an agri-entrepreneur who is responsible for last mile service delivery. Both these models in this framework work in tandem to create sustainable multi-dimensional change and empower community institutions and members to work with these actors so as to imbibe these changes into their lives and livelihoods.



Meeting with community collectives to promote cultivation of high value crops at Ranchi, Jharkhand © TRIF

¹Process Guide Document for Deep Community Engagement Model. 2021. Jharkhand State Livelihood Promotion Society, Government of Jharkhand and Transform Rural India Foundation, Ranchi.

While the framework gives a broad picture of multi-dimensional change in the livelihood of smallholder farmers, TRIF (Box 1) plays a central role in creating and activating multiple

convergence platforms across institutions in order to bring together various stakeholders with diverse knowledge to design and deliver effective and sustainable solutions.

Box 1. Transform Rural India Foundation (TRIF)

TRIF, established in 2016 is based in New Delhi. TRIF works in the Indian states of Jharkhand, Madhya Pradesh, Chhattisgarh, Uttar Pradesh, Bihar and Uttarakhand. TRIF aims to bring about a paradigm change in the lives of disadvantaged communities in rural India, more specifically the poorest 100,000 villages, which we call 'Stranded India'. TRIF has three major verticals engaged in transforming this Stranded India - (a) Developing local contextual solutions for Village Transformation; (b) Public-System engagement for scale-up of solutions; and (c) Market solutions for Stranded India.

ECOSYSTEM DEVELOPMENT SUPPORT TO SMALLHOLDER FARMERS

Recognizing the need for solutions at all stages of the agricultural value chain, TRIF adopts an ecosystem development approach that includes interventions at critical junctures addressing critical needs cutting across different stages from pre-production preparedness, production, and post-production processing till marketing of the produce. Five pillars form the basis of solutions designed to provide the comprehensive ecosystem development support to

smallholder farmers. The pillars include:

- Strengthening Rural Production Systems;
- ELToSA (Empathy Led Transformation of Subsistence Agriculture);
- Agriculture Human Capital Investment (AHCI);
- Last mile service delivery; and
- Market linked farming.

Various toolkits and essential institutions are designed to build each of the pillars of change as given in Figure 2 below.

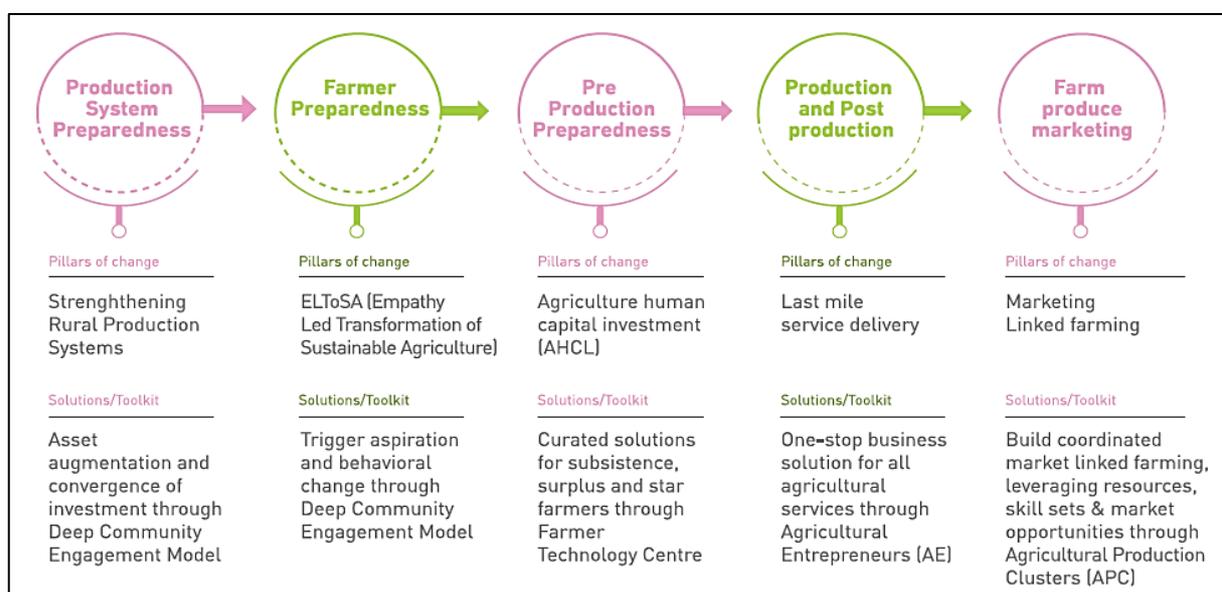


Figure 2: Five Pillars of the comprehensive ecosystem development approach

Strengthening Rural Production Systems

The Rural Production system is comprised of both biophysical and socio-economic systems of farm and farmer. Activities around water resource management, soil management and other agro-ecological conservation will help in improving the rural production system. Access to irrigation and control over water are essential to keep smallholders productive. The key focus of this component is to leverage existing government schemes such as MGNREGA (Mahatma Gandhi National Rural Employment Guarantee Act), RKVY (Rashtriya Krishi Vikas Yojana), NMSA (National Mission on Sustainable Agriculture), NMOOP (National Mission on Oilseeds and Oil Palm), NFSM (National Food Security Mission), MIDH (Mission for Integrated Development of Horticulture), NMAET (National Mission on Agricultural Extension and Technology) and other state government programs for natural resource augmentation. Creation of a structured mechanism for beneficiary identification, mapping of eligible programs, streamlining application and follow-up actions are the major processes undertaken by TRIF.

One such example is TRIF supporting MGNREGS implementation in Jharkhand as TA (Technical Agency) for IPPE II (Intensive Participatory Planning Exercise II) where the planning cell supports MGNREGS to coordinate the large-scale intensive participatory planning exercise, called 'Yojana Banao Abhiyan' to be undertaken by the Government of Jharkhand in 195 most backward blocks, for preparation of livelihood-enhancing plans for MGNREGS, to ensure water

access/control to all farmers based on integrated natural resource management principles. Similarly, the planning cell of TRIF supports the MGNREGS Commissioner, Jharkhand, on improving guidelines, developing standard systems, convergence with line departments, institutionalizing the role of women collectives, enhancing Integrated Natural Resource Management (INRM) based assets and creating a pool of block level master trainers and Community Resource Persons (CRPs). This program has created orchards on 4257 acres (survival 89%) in upland benefiting 6100 small and marginal families.

ELToSA (Empathy Led Transformation of Sustainable Agriculture)

Improving agricultural practices is a function of overcoming structural, supply-side as well as demand-side barriers. While it is important to ensure continuous stream of inputs, along with the use of relevant technologies and technical know-how, as well as provision of subsidies, credit and insurance, many of the barriers to adopt appropriate and modern farming practices are behavioural in nature. Overcoming the behavioural barriers warrants adopting an empathy-led approach, which involves experiencing the world from farmers' perspective, and to view life from their living conditions, taking a closer look at the way they process information and make decisions.



Meeting with Self Help Group Members © TRIF

While many desirable farming practices promise high returns in future, it entails small costs in the present. Humans, in general, are prone to decision fatigue. We have limited cognitive resources, and a finite amount of time to make decisions. Farmers, particularly those living in absolute poverty, face difficult trade-offs, and hence, are more susceptible to cognitive overload (*a situation where a person is given too many simultaneous tasks resulting in not being able to perform as he/she would do otherwise*). Despite being aware of modern farming methods, and being convinced of their potential benefits, it is highly likely that the farmers might simply stick to the decisions they have always made in the past, exhibiting inertia as well as status quo bias.

Farmers are under constant pressure to make optimal economic choices, despite being severely constrained by their circumstances and the external environment. The strategy is to

integrate solutions addressing structural challenges, supply-side as well as demand-side issues, in a behaviourally sensitive manner. ELToSA forms the foundation of the engagement with community collectives for triggering aspirations of farmers/communities to move from subsistence to commercialization. This is done by

- Bringing in market orientation in the communities that would eventually lead to plans for diversification and intensification of existing cropping system;
- Designing and organizing structured meetings to engage with community collectives supporting them for large-scale adoption;
- Design and execute a coordinated set of activities through the collective's platforms to bring about the shift in mindsets and behaviour patterns for farmers to move from subsistence to prosperity/surplus.



Training farmers on seed treatment of paddy © TRIF

Agriculture Human Capital Investment (AHCI)

Agricultural investments often emphasize physical and financial capital of farming households – for example, land, fertilizers or credit. However, agriculture human capital investment (AHCI), is crucial for spurring innovation, farm management decisions and to empower smallholders. Human capital is an economic term which encompasses assets that increase individual productivity and economic value. Farmer Technology Centre (FTC) aims to educate farmers and increase their knowledge so as to strengthen their ability to take decisions, adopt new technologies, evaluate risks and manage farm resources.

Farmer Technology Centre

Extension services play a critical role in improving farm livelihood by providing

appropriate support to boost agricultural productivity. They play a vital role in scaling up of innovation and best practices. Farmer Technology Centre (FTC) is designed to address three issues pertaining to the existing practices in extension services. First, FTC brings in the required heterogeneity to the support offered to a range of farmers with different aspirations and needs, in contrast to the conventional homogenous approach where a single solution is promoted across entire communities and even across regions. Second, FTC adopts a ‘two-way communication’ approach rather than one-way communication to the farmers which prevails in most of the existing extension services. Third, FTC takes a ‘human centric’ approach instead of a ‘technology centric’ approach. The human centric approach helps in designing appropriate solutions based on the needs of various types of farmers.



In house training of Agri entrepreneur and farmers at Angara Block, Ranchi District, Jharkhand, India © TRIF



On-field training for farmers © TRIF

FTC acts as a customized 'Solutioning' center where different solutions are designed to cater to subsistence farmers, surplus farmers, and star farmers by providing curated solutions to each of them. FTC is a residential training center with technologies identified and selected for different types of farmers. The center focuses on high value crops, increase in productivity, and it is market-oriented including exotic crops with export potential.

Last mile service delivery through local value chain actors

A weak market linkage with broken supply chain – both at the input-side and output-side – has crippled the chance of smallholder farmers in accessing fair opportunities for dignified earning from agriculture. The lack of an efficient and competitive rural market

ecosystem leaves smallholder farmers at the risk of exploitation by intermediaries. Often crucial service delivery at critical times, like the supply of quality seeds at the right sowing period or identifying the right market and right price at the time of harvest, becomes a bottleneck for smallholder farmers. In order to address this gap, champions from communities are identified and mentored to become Agricultural Entrepreneurs.

Agricultural Entrepreneurs

Agricultural Entrepreneurs (AE) act as a one-stop business solution for all agricultural services pertaining to input (nursery/seeds, fertilizers, agro-chemicals), output (aggregation, market linkages), water (irrigation), farm mechanization, technologies and extension services (knowledge, training, crop advisory). AEs play an important

role, cutting across the entire agricultural value chain in the rural market ecosystem, and this intervention is also referred to as VCA model (Value Chain Actors model). The support provided by AEs help individual farmers especially women farmers as well as farmer collectives to improve their outreach and strengthen farm procurement, get access to working capital and improve market linkages.



Sarita Devi, Nursery Agripreneur from Ramgarh District
© TRIF

AE is an entrepreneur who charges a fee for all the products and services he/she provides. TRIF has produced over 300 such AEs catering to over 600 villages across the hinterlands of Jharkhand and Madhya Pradesh. AEs are identified with the help of Village Organizations (VOs) and Self-Help Group (SHGs) to provide multiple missing services and market linkages in the rural market ecosystem so as to support agriculture livelihoods. AEs also play a role in convergence with government programmes focussed on agri-infrastructure and making them available to farmers. Practice change and behaviour change is facilitated through capacity building of both the community and the AE.



Abhishek Kumar, Agripreneur from Ramgarh selling agri-inputs © TRIF

Market linked farming

Market asymmetry, skewed value chain and inability to use information are among the key factors that has trapped smallholder farmers in vicious cycles of low earnings, depleting assets, and indebtedness. This has resulted in high instability and vulnerability in farm livelihoods. Agricultural Production Clusters (APCs) are designed to address these issues faced by the farmer through collectivization of farmers into commodity-based clusters where production activities and marketable surplus are synchronized with market demand and consumer requirements.

Agricultural Production Cluster (APC)

APC provides solutions on land use, crop planning, credit, aggregation and transportation. This can be achieved by introducing solution toolkit aimed to revitalize farm economies where subsistence agriculture is prevalent. Advisory services, infrastructure and market access form the pillars of APC at the village level. Micro Production Arrangements (MPAs) are the building

blocks of APC at the production end, with about 150-200 farmers producing 2-3 crops that would have a viable scale of marketable surplus. MPAs are linked to market ecosystem supported by the APC promoter through capacitation, coordination and partnership management processes.

The formation of APCs starts with identification of right focus regions with potential sub-regions for MPAs to create a high-level crop strategy. The second stage is to assess state of the production system and build ecosystem partnerships at APC-level followed by identification of target communities for MPAs. The engagement and onboarding of farmers to each MPA is a critical process where seeding the APC concept in a highly-contextualized manner has to be done for readying the community to carry out a market discovery and scoping exercise. Then an appropriate value chain enabler is identified to link farmers and market players. Once the basic linkage across stakeholders is established, the community is engaged in co-creating a strategic action plan for the MPA. The APC initiates the implementation of the strategy, then nurture and scale up MPAs using a portfolio approach.

IMPACT

So far TRIF has made inroads in over 600 villages across Jharkhand and Madhya Pradesh and its reach is shown in the table below.

Reach of the model	Jharkhand	Madhya Pradesh
Number of blocks	8	5
Number of villages	309	298
Number of AEs	176	114
Number of FTCs	2	5
Number of farmers being supported	19,000+	23,000+

CHALLENGES

The major challenges in scaling up of the model is the dearth of private or public investments, especially in extension and capacity building activities. Despite notifications and circulars from the Government of India validating the agri-entrepreneur certificate for selling of agri-inputs, it is often not recognised by officers in the field and getting the conventional licence becomes a challenge. Though women centric community institutions play an important role in the model, mobilizing women to become agri-entrepreneurs has been difficult in the current rural context. Since agri-entrepreneurs come from very modest backgrounds, managing enterprise risk on their own is very challenging and requires some functional risk managing mechanism. While the market is slowly opening up to the rural ecosystem, it is also important to acknowledge that the change will be a gradual process and manage the expectation of various stakeholders to ensure that contextual needs are addressed properly for the sustainability of the model.

LESSONS

Multi stakeholder platforms enabling collaboration at different levels

One of the critical pieces in the comprehensive agriculture model is creating platforms for effective collaboration/partnerships at state, district and block level. So, joint planning and review mechanisms, regular communication and coordination becomes critical for an effective multi-institutional engagement at each level. The role of the facilitating agency becomes pivotal in navigating through processes, developing confidence across teams and building collective ownership of the development process among all stakeholders. Though there could be strong collaboration between institutions at the top level, in practice, facilitators need to focus on the ground level collaborations, coordination and synergies among institutions by creating platforms, such as district and block level coordination committees for effective collaboration.

Investing in Human Capital

Further, investing in human capacities in the form of 'local' agricultural entrepreneurs, women farmers and their collectives, is critical to build 'local champions' to solve challenges for the improvement of human lives. Focus on women farmers and community institutions provides a more responsive and accountable market ecosystem. Since the AEs are individuals, the flexibility and agility offered by them to rural agri-market ecosystem address the larger market demands. Further, since the AEs are selected by the community institutions and trained through socially

embedded processes, they are community oriented and drives the local village economy.

The comprehensive model thus offers a strategy that leverages the large community institutions promoted by National Rural Livelihood Mission (NRLM) (more than 7.6 million SHGs), in collaboration with government and market organizations. This could be scaled up across the country to design and deliver solutions at the village level for bridging the critical gaps in rural agri-market ecosystem, and thereby ensure prosperity for small and marginal farmers in the backward regions of India.



Hemant Minz, agripeneur from Simdega District involved in organic input production © TRIF

CONTACT

Ashok Kumar

Ashok Kumar is Director, Farm Prosperity at TRIF. Prior to joining TRIF, he was working at PRADAN, and has extensive experience in integrating agriculture with Integrated Natural Resource Management (INRM) program, and supporting teams in promoting agriculture as a robust livelihood activity for rural poor.



ashok@trif.in

Siva Muthuprakash K. M.

Siva Muthuprakash K. M. is lead researcher working with the VikasAnvesh Foundation, Pune. He has been working in the area of sustainable agriculture and farm livelihood for over a decade. His areas of interest include research in development practices and co-creation of knowledge with civil society organisations.



sivam@vikasanvesh.in

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The Asia-Pacific Islands and Rural Advisory Services Network (APIRAS), the Asia-Pacific Association of Agricultural Research Institutions (APAARI), in close collaboration with the Research and Extension Unit of the Food and Agriculture Organization (FAO) of the United Nations are committed to strengthen agriculture innovation systems in Asia-Pacific for transforming agri-food systems.

In 2020, APIRAS and APAARI carried out a Joint Rapid Appraisal (JRA) to scope the innovation environment to identify and document initiatives aimed at strengthening Agricultural Innovation Systems (AIS), in a context of the TAP-AIS project.

The [JRA study](#) revealed three main barriers that constrain development of an effective AIS in the Asia-Pacific. These include: a) lack of sufficient partnerships among actors in the AIS, b) inadequate investments and lack of policies that could steer the research and extension agencies to engage with other AIS actors, and c) lack of sufficient capacity development initiatives aimed at enhancing functional capacities of AIS actors. Publication of this series of Good Practice Notes is an attempt by APIRAS and APAARI to document cases that have tried to address development of an effective AIS through addressing the above constraints.



The TAP-AIS project

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For more information see:

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