

|| CHALLENGE AREAS

Low Productivity:

Access to technology and innovations

Climate Risk:

Resilience and risk management

Inefficient Supply Chain:

Storage & market transparency

|| LOW PRODUCTIVITY

Improving agriculture productivity to cater to increasing market demand and to enhance smallholder farmers' income.

Smallholder farmers across the participating countries still rely on traditional farming systems at both pre and post harvest stages.

Even though the farmers recognize the importance of improved technology in increasing yield, they lack access to finance, information and inputs to adopt these technologies.

Thus, smallholders are constrained in viscous loop of poor production and low income.

There is scope to help the smallholder farmers improve agriculture productivity and enhance their income, through relevant agritech and fintech solutions.

Indicative Solution Domains

Solutions that enhance smallholder farmers' access to finance and/or relevant information that ultimately result in increased production. These solutions could be (but not limited to):

- Enabling access to financial services including through alternate credit scoring / profiling & digital lending models for smallholder farmers, as well as to adopt improved technology, such as farm mechanization, post-harvest processing and warehousing
- Farm management tech / digital solutions for efficient crop planning, nutrient and soil data management
- Access to information and extension services, knowledge and skills for smallholder farmers to adopt new technology

CLIMATE RISK

Increasing resilience of smallholder farmers against shocks from climate change, natural hazards and other unforeseen events.

Every year, crops are affected by natural hazards leading to crop and income loss for smallholder farmers. Due to climate change there have been increased instances of untimely rains, temperature rise and prolonged dry weather. As per FAO, between 2005 to 2014, USD 93 billion was lost in crop and livestock production due to natural disasters.

With rise in natural hazards, there is increased need for risk management solutions for smallholder farmers. The ongoing Covid-19 pandemic has further emphasized the significance of customised solutions for smallholder farmers to absorb shocks from both, production and market linked losses.

There is scope to help the smallholder farmers with risk management/ mitigation solutions to help better secure their income and livelihood.

Indicative Solution Domains

- Digital (crop) insurance as well as solutions across the value chain to make digital insurance offerings more efficient
- Information / intelligence based solutions around alternate agriculture, climate and weather data to help facilitate production planning and to protect smallholders farmers against unforeseen events
- Income continuity products for smallholder farmers to sustain and recover from income loss due to climate change and natural disasters

INEFFICIENT SUPPLY CHAINS

Improving supply chains efficiency and market & pricing transparency for smallholder farmers.

Agriculture value chains have inefficiencies due to lack of storage infrastructure, limited overview on demand, supply & prices and lack of organised markets.

Inefficiencies in value chains leads to price and demand volatility in the sector for all the stakeholders, particularly the smallholder farmers. This volatility also increases the investment risks for the sector.

There is potential for tech/ agritech solutions to help make the market and value chain more transparent for smallholder farmers, thereby providing price stability and income enhancement.

Indicative Solution Domains

- Market intelligence solutions for demand-led production, supply chain and sales planning for farmers, wholesalers and retailers
- Supply chain management solutions that enhance transparency and traceability of produce from farmers to retailers
- Technology-enabled solutions that help reduce wastage at different stages
- Solutions that help smallholder farmers gain access to under-utilized storage spaces through innovative tech or financing models
- Improve access to markets for smallholder farmers / cooperatives to directly sell and supply to distributors / retailers and/or customers