

Policymakers have been striving hard to make Indian agriculture economically viable for long.

Though there is hardly any exit route available for Indian farmers, majority of them would like to quit agriculture, due to various structural reasons. Here are some policy options for agriculture :

Digitalisation of agriculture: Agri start-ups have been helping in putting the 'farmer first' in supplying seeds, fertilisers, pesticides directly through apps/call centres/channel partners, obtaining loans, buying crop insurance, and selling their produce at the best price. These new age ventures make the life of farmers easy through their 'full-stack' solutions, from 'seed to market'. Gurugram-based DeHaat caters to 15 lakh farmers covering over 35 crops, through artificial intelligence, machine learning, and data analytics. Typically, the farmers with smart phone can access digitalized agri-services for agri-inputs, farm advisory, and marketing of agri-produce.

Integrated/natural farming: Integrated/natural farming is recommended for some farmers who cultivate on uneconomic land holdings. If the farmer opts for integrated farming i.e., a couple of milch animals, backyard poultry, fish pond alongside vermi-culture for generating natural manure, he will be self-reliant and financially empowered. Family labour is the most important component of integrated farming, which makes it commercially viable and environmentally sustainable.

Climate smart agriculture: The government spends well over ₹1-lakh crore per annum towards fertiliser subsidy translating into approximately ₹7,000 per farmer. This led to indiscriminate use of fertilisers resulting in irreparable ecological damage, soil infertility, and a toxic food chain. Soil position in Punjab is unhealthy as 246 kg of fertilisers are used per hectare compared to the national average of 135 kg. Therefore, it is imperative to shift to eco-friendly agri-inputs such as Nano Urea which is cost-effective, ease in logistics, apart from enhancing crop yields substantially. In fact, a 500 ml bottle of Nano Urea (invented by Ramesh Ralia and manufactured by IFFCO) costs around ₹240 and it can replace a 45 kg



Agriculture needs a 'natural' boost

FARMER FIRST. Sustainable farm practices, a boost to the FPO model and a move away from informal credit can make a difference

bag of urea, that costs around ₹3,000 in the open market.

Adopting best farm-practices: Though Israel does not have conducive climate for cultivation of agriculture, water resources, and more than half of its land area is desert, it is a major exporter of farm-produce and a global leader in agricultural technologies including Internet of Things. Agriculture in Israel is based on co-operative principles that are practised mainly by two farming communities namely Kibbutz and Moshav who follow social equality,

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co-operation and mutual aid in generating agricultural output in the most productive manner.

Say 'no' to informal credit: A recent field survey in 5 States (Telangana, Karnataka, Odisha, Uttar Pradesh and West Bengal) shows that money lenders/traders/landlords, still exist in rural India despite the availability of formal sources of finance from banks/financial institutions (NIRDPR, 2022). So besides easing access to formal credit, farmers need to be counselled on financial prudence.

Leveraging Collectives: Convergence of SHGs, Farmers Producer Organisations (FPOs) and Co-operatives will lead to better bargaining power of farmers in terms of bulk procurement of inputs at a discounted price, economies of scale in transportation and warehousing, access to low cost institutional finance, farm mechanisation (drones for monitoring of crops and spraying of fertilisers and

plant protection chemicals, etc.), aggregation in selling of agri-produce at remunerative prices. The government allocated ₹6,866 crore for promotion of 10,000 FPOs till FY2028. However, majority of the FPOs are not able to access these funds due to their inadequate capital base, lack of awareness, and non-compliance with the guidelines.

Development of agri-value chains: Key drivers of agri-value chains are customer focus, infrastructure, technology, training & capacity building. VAPCOL, a multi-state farmer producer company based in Maharashtra, is a case in point. It has a membership of 55 FPOs covering over 40,000 tribal farmers spread across seven States.

Development of agri-export clusters may be encouraged besides managing the risks of monsoon and market.