

## **Use of Technology to Address Farmers Concerns**

### **What is the issue?**

\n\n

\n

- Indian farmers face the problems of risk and profitability.
- Modern technological tools can mitigate the issues faced by the farmers.

\n

\n\n

### **What are the risks faced by the farmers?**

\n\n

\n

- The risk-bearing capacity of the farmer has been declining for a long time.
- Their financial ability is so low that failure of a single crop can throw him into distress and push him to suicide.
- Natural calamities results in complete crop failure and has no traces for claiming an insurance.
- Lack of access to irrigation is most prevalent in every parts of the nation

\n

\n\n

### **What are the fiscal concerns of the farmers?**

\n\n

\n

- During planting, the farmer has no clue about the price he is likely to get for his crop which leads to price risk.
- There is also lack of operational profits from the crop, Profitability depends on input quantities and their prices and output yield and its price.

\n

- Timely credit is a critical item as it is physically not possible for bank staff to cover all farmers in time for the agricultural season.

\n

\n\n

## **How these concerns can be mitigated by use of technology?**

\n\n

\n

- **Irrigation technologies** - Flood irrigation must be replaced with precise application systems like drip and hose reel for 50-70 per cent water-saving.

\n

- **Use of data analytics** - Robust insurance programme can be assured by availability farm-level data captured through satellites, sensors and other modern tools.

\n

- Using predictive analytics a price prediction model can be developed which gives the farmer, at planting time, an idea of the likely price it will help him take an informed decision on crop choice.

\n

- **Digital markets** - Linking farmers directly to digital markets will eliminate middlemen and push farmers up the value chain for price discovery.

\n

- Complete digitisation for credit availability can be achieved using JAM accounts and digitised land records.

\n

- **Biotechnology solutions**- Replacing transplanted paddy with modified seeds of water-use efficiency gene can save water up to 30 per cent.

\n

- Similarly nitrogen-use efficiency gene and phosphorus-use efficiency gene reduce consumption of fertilisers significantly.

\n

- **Seamless Communication** -The Government should create a unified, reliable data base of farmers with complete details of every cultivatable area.

\n

- Farm-level diagnosis of pests and diseases, advice on nutrition and so on should be available on the mobile phone.

\n

\n\n

\n\n

**Source: Business Line**

\n

