# The New Wave of Agritech must Respect Traditional Farmers' Knowledge

## What is the issue?

With the emergence of agri-tech unicorns in the digital revolution in agriculture, farmers' traditional knowledge are often neglected or exploited.

## What is the role of the Agri-tech start-ups in the digital revolution?

- The internet penetration of about 32 % provides the basis for the growth of digital platform-based enterprises.
- Agri-tech start-ups aim to address the knowledge gaps among the farmers.
- They provide goods and services to farmers, such as access to quality inputs, and reasonably priced credit.
- Several start-ups  are providing various value chain services. ITC's e-Choupal and related one-stop retail formats were considered as precursors to the digital revolution in agriculture.
- On the output side, start-ups are working to reduce the farm-to-fork gap, enhance market access and bargaining power of smallholder farmers.

*e-Choupal is an initiative by ITC Limited that provides Internet access to rural farmers to enable them to order supplies, learn about best agricultural practices, receive weather reports and read about pricing for crops throughout the region.*

## What efforts have been made by the Government in this respect?

- **Use of technology -** The government has taken steps to create a farmers' and land ownership database.
- The Digital India Land Records Modernization Programme, Unique Land Parcel Identification Number (ULPIN),etc. were the efforts taken in this direction in this direction.
- **India Digital Ecosystem of Agriculture (IDEA)** - The government has released a consultation paper on the IDEA that would place the farmer in the centre of the agriculture ecosystem leveraging open digital technologies.

## What are the benefits of inculcating technology in agriculture?

- Provision of agri related information
- Increased productivity
- Reduces the risk of farmers
- Aids in precision farming
- Reduce the incidence of benami properties
- Reduce the incidence of protracted land disputes
- Enable farmers to use their assets to access institutional finance
- Reduce the challenges banks face in conducting due diligence before advancing agricultural loans.

## What are the challenges in the emergence of agri-tech starups?

- Privacy and security concerns
- Issues of exploitation of farmers
- Unfair appropriation of traditional community knowledge – PepsiCo India Holdings had earlier sued 11 farmers for illegally growing and selling a potato variety registered in the company's name.
- Absence of checks and balances - The previous experience with attempts to patent Indian Basmati, Neem, and Turmeric by MNCs provides for little confidence.
- Data can be used as an instrument of coercion, manipulation, and control

## How to balance the conservation of traditional knowledge and the growth of agri startups ?

- The awareness about the Protection of Plant Variety and Farmers Right Act (PPVFR Act) that aims to achieve a delicate balance between farmers' and breeders' rights has to be enhanced.
- The Traditional Knowledge Digital Library (TKDL) such as e-Kutir and Geographical Indications initiatives have to be strengthened.

  *eKutir is a for-profit social enterprise group that provides economically sustainable solutions anchored with technology, micro-entrepreneurship, and community engagement.*

- Farmer-owned cooperatives and producer companies have to be enabled to function as custodians of intellectual property and traditional knowledge of farming communities.
- There is a need for other complementary interventions and appropriate

safeguards against inequitable appropriation of traditional knowledge.
- India needs to ensure that the digital push enables the transition towards decreased resource intensity or costs of agriculture, enhanced crop diversification, and nutritional security, and increased farmers' income.

## References


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