Agristack: The New Digital Push in Agriculture

Why in News

Recently, the **Ministry of Agriculture** has signed a **Memorandum of Understanding** with **Microsoft** to run a **pilot programme** for 100 villages in 6 states.

- The MoU requires **Microsoft** to create a **'Unified Farmer Service Interface'** through its cloud computing services.
- This comprises a major part of the ministry's plan of creating **'AgriStack' (a collection of technology-based interventions in agriculture)**, on which everything else will be built.

Key Points

- **About AgriStack:**

  - It is a **collection of technologies** and **digital databases** that focuses on **farmers and the agricultural sector.**
  - AgriStack will create a **unified platform** for farmers to provide them end to end services across the agriculture food value chain.
  - It is in line with the **Centre's** Digital India programme, aimed at providing a broader push to digitise data in India, from land titles to medical records.

    - The government is also implementing the National Land Records Modernisation Programme (NRLMP)**.**
  - **Under the programme**, each farmer will have a **unique digital identification (farmers' ID)** that contains personal details, information about the land they farm, as well as production and financial details.

    - Each ID will be linked to the individual's **digital national ID** Aadhaar**.**
- **Need:**

  - At present, the **majority of farmers** across India are **small and marginal farmers** with limited access to advanced technologies or formal credit that can help improve output and fetch better prices.
  - Among the new proposed digital farming technologies and services under the programme include **sensors to monitor cattle, drones to analyse soil** and **apply pesticide**, may significantly **improve the farm yields and boost farmers' incomes.**
- **Potential Benefits:**

  - **Problems** such as inadequate access to **credit and information, pest infestation, crop wastage, poor price discovery and yield forecasting** can be sufficiently addressed by use of digital technology.
  - It will also **fuel innovation** and breed **investment** towards the agricultural sector and **augment research** towards more resilient crops.
- **Concerns:**

  - **Absence of a Data Protection Legislation:**

- In its absence, it might end up being an exercise where **private data processing entities** may know more about a farmer's land than the farmer himself and they would be able to exploit farmers' data to whatever extent they wish to.
  - **Commercialisation:**

    - The formation of 'Agristack' will imply **commercialisation of agriculture extension activities** as they will **shift into a digital and private sphere.**
  - **Absence of Dispute Settlement:**

    - The MoUs provide for **physical verification of the land data gathered** digitally, but there is **nothing** on what will be the **course of action if disputes arise**, especially when historical evidence suggests that land disputes take years to settle.
  - **Privacy and Exclusion Issues:**

    - Given that the proposed **farmer ID** will be **Aadhaar-seeded**, further issues of privacy and exclusion would emerge.
    - Several researchers have demonstrated the **vulnerability of the Aadhaar database to breaches and leaks**, while **Aadhaar-based exclusion** in **welfare delivery** has also been well documented in different contexts.
    - Also, making **land records the basis for farmer databases** would mean **excluding tenant farmers, sharecroppers and agricultural labourers.**

      - Data shows that the **population of farm labourers** has outstripped that of farmers and cultivators.

Way Forward

- There is no denial that there is **potential in data and technology** in empowering farmers but only when the flow of information is balanced.
- The **private firms working on pilot projects** must **effectively cooperate with state governments t**o reconcile the differences over land ownership.
- The government should move ahead with the **project based on the results obtained from pilot trails.**

Source: DTE

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