Open-Source Seeds Movement

Why in news?

In recent times, public sector breeding has declined and the private sector has begun to dominate the seed sector.

What are the issues faced by farmers regarding the seed sector?

- **Genetic revolution** - Agriculture was led by the private sector with seeds mostly made available as hybrids and/or protected by strong IPRs.
- **Intellectual property rights (IPR) protection** – Plant breeders' rights and patents restrict farmers' rights to develop new varieties using germplasm from IP-protected varieties.
- **Plant breeders' rights (PBR)** - Farmers' rights were limited while rights holders could demand royalty on seeds and legally enforce PBRs.
- **Exclusive rights** - Farmers haven't sought exclusive rights over seeds and germplasm to prevent others from innovating on the seeds.

How has the PPV&FR Act addressed the issue?

- **Protection** - Farmer who has bred or developed a new variety shall be entitled for registration and other protection under PPV&FR Act 2001, in the same manner as a breeder of a variety.
- **Rights** - Farmers can register varieties as 'farmer varieties' and have the *right to save, use, sow, re-sow, exchange and share or sell* the seed of a variety.
- **Commercial purposes** - The farmers can't breed and trade in varieties protected under the Act for commercial purposes.
- **Genetic fund** - Farmer who is engaged in the conservation of genetic resources of land races and wild relatives of economic plants and their improvement through selection and preservation shall be entitled genetic fund.

How PPV&FR Act differ from other Acts/Processes?

Seeds Act, 1966 vs PPV&FR Act, 2001

- Seeds Act, 1966, Seeds Rules 1968 with Seeds (Control Order) 1983 are the legal instruments for *regulating the production, distribution and the quality* of certain seeds for sale.
- PPV&FR Act, 2001 grants the *proprietary ownership* of the variety to the plant breeders and farmers for their varieties.
- The duration of protection of registered varieties is different for different type of crops
    - Trees and vines ***- 18 years***
    - For other crops ***- 15 years***

- For extant varieties notified - ***15 years*** from the date of notification under section 5 of the Seeds Act, 1966.

Patent vs PPV&FR Act

Patent	PPV&FR Act
• A patent deals with IPR over devices of Industrial applications. • A patent is a set of exclusive rights granted by a state (national government) to an inventor or their assignee for a limited period of time in exchange for the public disclosure of an invention.	• PPV & FR Act, 2001 confers IPR to plant breeders who have bred or developed plant varieties. • The PPV&FR Act, give rights to farmers, breeders and researches besides giving protection to varieties of all crop species which are notified under the Act.

What are open source seeds?

- The open source seeds is a mechanism based on the principles of open source software.
- ***Open Source Seeds Initiative (OSSI)*** is the first open source seeds initiative launched by Jack Kloppenburg in 2012.
- It asks for a pledge, that an individual won't restrict others' use of these seeds or their derivatives by patents or other means.

In India, the Hyderabad-based Centre for Sustainable Agriculture (CSA), part of the Apna Beej Network, developed a model incorporated into an agreement between CSA and the recipient of the seed/germplasm.

How significant is the approach?

- Using the open source approach will enable farmers to gain more *rights over germplasm and seeds* and facilitate innovation.
- It can bring *uniformity* across India.
- *Farmer-led seed conservation* and distribution systems can be created using open source approach.
- It facilitates testing, improvisation, and adoption that will benefit India's *food security and climate resilience*.

References

1. The Hindu | Open Seed Source Movement
2. Vikaspedia | PPVFRA Act 2001

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