India



Region South and Southeast Asia

UPOV membership status Initiated the procedure for acceding to the UPOV Convention

Participation in OECD Seed Schemes

ISTA accredited member laboratories Yes

GM crop approval for cultivation Cotton

Law on Plant Variety Protection Protection of Plant Varieties and Farmers' Rights Act 2001

Seed sector in India

A favorable enabling environment has fueled the rapid growth and development of the seed sector in India. Although the Indian seed industry is one of the most mature in the region, the private sector is secretive about its business activities.

The Government of India has played an important role in developing policies and programs that have far-reaching impacts on the progress of smallholder farmers such as Pradhan Mantri Fasal Bima Yojana, a governmentsponsored crop insurance scheme.

The Protection of Plant Varieties and Farmers' Rights Act 2001 has increased private sector investment in R&D to develop new varieties.

There are currently two seed associations: the National Seed Association of India (NSAI) and the Federation of Seed Industry of India (FSII). The latter was set up in 2016, following controversy around patents on insect resistance traits used in cotton.

India is among the top ten countries cultivating GM crops, with insect-resistant Bt cotton covering a land area of 11.4 million hectares in 2017.

Observations

Twenty-six index companies report having a presence in India. Eight companies have their headquarters in the country. Private agribusiness companies invest heavily in R&D and technological innovation, which is evident from the extensive company activity in the country.

Of the twenty-two companies that carry out seed production in the country, more than half involve mainly smallholder farmers in such activities.

The companies that have breeding locations in the country focus on breeding both vegetable crops and field crops.

Cotton is present in the portfolio of twelve companies. Only Bayer, Nuziveedu and National Seeds Corporation offer open pollinated varieties. Cotton is listed as the main crop in the region for companies such as Bayer and Nuziveedu.

Sixteen companies report having significant extension services, with dedicated staff to deliver them.

Company **Crops in portfolio** Company activities in country Processing Other index companies are also Companies selected for Field Vegetables Breeding Testing Seed Sales Extension crops location location production location the Access to Seeds Index services active in the country. However, country-specific information Acsen HyVeq** • for these companies is not * Advanta available or was provided Bayer * under non-disclosure. Beio Bioseed** Charoen Pokphand * Corteva Agriscience East-West Seed • Enza Zaden Kalash Seeds** * Known-You Seed KWS Lal Teer Seed • Limagrain Mahyco** Metahelix** Monsanto * Namdhari Seeds** National Seeds Corporation** • Nongwoo Bio • Nuziveedu Seeds* Rijk Zwaan • Sakata Seed Co Company involves smallholder farmers in seed production activities * Syngenta Takii Company headquartered in India

Company activities identified in India

Other companies identified in the regional landscaping study and their activities

| Company | Crops in portfolio | | Company activities in country | | |
|------------------|--------------------|------------|-------------------------------|--------------------|-------|
| | Field crops | Vegetables | Breeding location | Seed production | Sales |
| JK Agri Genetics | | | | | |
| Kaveri Seeds | | | | | |
| VNR Seeds | | | | | |

