SeedCast

A digital innovation to strengthen seed demand and supply information for rice

✔️ Background

The International Rice Research Institute (IRRI), together with the Odisha Department of Agriculture and the Odisha State Seed Corporation (OSSC), is connecting global innovative solutions to local needs through SeedCast, a mobile application and web-based Management Information System (MIS) portal for seed demand estimation and varietal information.

SeedCast will help streamline the demand and supply of seeds for different varieties of rice. According to Dr. Saurabh Garg, Principal Secretary of the Odisha Department of Agriculture and Farmers' Empowerment, "seed corporations have been grappling with the issue of estimating demand for seeds. SeedCast will help estimate demand for varieties of rice seeds, which makes nearly 80% of the Kharif cultivation."
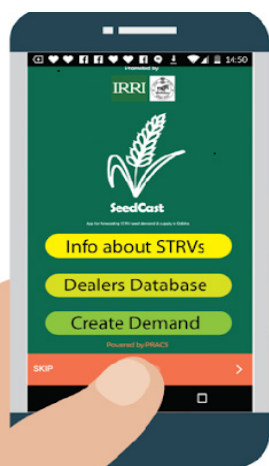
✔️ The Challenge

Seed varietal replacement is a key challenge in seed systems; new varieties are not able to penetrate new markets and target audiences. IRRI recognized these issues but struggled with identifying a solution. Years of experience and understanding these issues led to the creation of SeedCast, which aims to provide linkages and coordination between supply and demand side stakeholders.

✔️ How does it work?

SeedCast is a digital tool to bridge the gap between seed demand and supply to strengthen the formal seed market and associated information system. It is an ICT-based seed demand estimation mobile application and web portal. In its introductory stage, the application focuses on only rice varieties of Odisha, India, including many newly released stress-tolerant rice varieties that have been evaluated in the state. However, the features of this application are expandable and replicable to other region and crops in the future as well.

The mobile app will augment IRRI's initiative in Odisha on increasing productivity of rice-based cropping systems and farmers' income. Through the app, dealers will be able to indicate the demand for different varieties of rice seeds. This information is made available to seed corporations, state and district agriculture department authorities. It will help them produce the preferred seeds in the required quantities. This can reduce the gaps between supply and demand of rice seed varieties. This will also encourage the replacement of older, lesser-yielding varieties of rice with new, higher-yielding varieties. Farmers using the app will have access to information on which seeds are available from which dealers, so they can access these for purchase and cultivation according to their needs and environmental conditions. Farmers can also use the application features to take decisions on varietal selection based on their land type and preferences.

"Rice varieties being developed and released in the market alone cannot ensure that farmers have access to the seeds they want to cultivate according to their needs and farming conditions. SeedCast will make the seeds supply chain robust by helping dealers indicate their demand through a formal platform. The data generated by the app can be viewed and analyzed, which will help state functionaries and the state seed corporation plan accurately for seasonal seed production and procurement, and facilitate better seed availability according to demand." ~ Dr. Manzoor Dar

✔️ Target Users

The intended users of the mobile platform are seed dealers, extension functionaries, seed suppliers and farmers:

1. **Dealers:** Helping to estimate and collate demands for seed of rice varieties in the region and submitting them to state authorities.

2. **Farmers:** SeedCast can support farmers by providing access to information on many newly released climate resilient rice varieties, other high yielding varieties and selecting varieties as per their need and ecology (as a varietal decision support tool). Through this application, farmers can also enquire about the supply and availability of preferred varieties by tracking getting connected to the dealers nearby having the stock of particular seed and variety.

3. **Government, partners, and IRRI:** As a digital demand estimation tool, this application intends to make a shift from conventional demand raising based on historic trends by making it a more updated 'just before the season' practice. This would provide more realistic demand capturing the changed preferences of farmers due to various exposure every year, making the seed marketing scenario a demand-driven approach.

✔️ Next Steps

- **Odisha implementation:** IRRI is currently implementing SeedCast in Odisha and will monitor how public seed corporations would respond to it when it comes to the actual use. Iterations of the application are expected as it is rolled out.

- **Linkages for seed systems in other geographies**: A tool like SeedCast is very relevant to seed systems in multiple countries as a very relevant and useful tool. There is a great deal of scope to strengthen this work with other stakeholders at the national level.

- **Google Play Store:** The app will be available in Google Play Store and is expected to have an upgraded version in the future, catering to rice as well as other crops.

- **User Feedback and Updates:** The user feedback generated during the pilot will inform refinement for large scale deployment in the coming seasons and expanding the features further.

▶ Lessons Learned and Recommendations

While still in the early stages of development, IRRI has already had some key lessons learned:

- **Sustainability front and center**: SeedCast was developed because of a recognized need in Odisha with the potential for replication and scale. Instead of focusing on the development and evaluation only, it is critical to consider what the strategic potential of a product is from the outset.

- **Service provider relationship**: A key learning is to ensure that a dedicated developer remains actively engaged and on board during the life of the project. Otherwise, it is difficult to maintain consistency in the relationship and development of the application with the technology service provider.

Our Partners

Odisha State
Seeds Corporation

Government of
Odisha

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