

## CSISA Notes

## DSR-Odisha/CSISA Project Insights and a Policy Dialogue on Agricultural Mechanization in Odisha Bhubaneswar- 22 February 2023



Participants at the policy dialogue led by CSISA discuss current insights and the roadmap for DSR-Odisha mechanization plan



The Cereal Systems Initiative for South Asia (CSISA) is a regional initiative to sustainably increase the productivity of cereal-based cropping systems, thus improving food security and farmers' livelihoods in Bangladesh, India and Nepal. CSISA works with public and private partners to support the widespread adoption of resource-conserving and climate-resilient farming technologies and practices. The initiative is led by the International Maize and Wheat Improvement Center (CIMMYT), implemented jointly with the International Food Policy Research Institute (IFPRI), the International Rice Research Institute (IRRI), and the International Water Management Institute (IWMI) and is funded by the US Agency for International Development (USAID) and the Bill & Melinda Gates Foundation.

On 22 February 2023, as part of the 'Precision Direct-Seeded Rice Based Diversified Systems for Transforming Labour Requirement, Yields and Profitability of Smallholder Farmers in Odisha (DSR-Odisha)' and 'Cereal Systems Initiative for South Asia (CSISA)' project, organized "Projects Insights and a Policy Dialogue on Agricultural Mechanization in Odisha" in Bhubaneswar, Odisha. Mechanized seeding of rice and pulses/oilseeds in sequence layered with improved varieties and tailored agronomy was envisaged as an excellent proposition to raise system productivity, profitability, resource conservation, and environmental safety.

Based on large scale demonstrations across six districts, mechanized DSR being on par with PTR (puddled transplanted rice), yielded 1.0 t/ha higher than traditional broadcast followed by beushening, and hybrids had the edge over inbreds during kharif 2022. Additionally, drill seeded green gram variety MH42 produced as high as 1.99 t/ha at Srikanthapur village in Puri district. The policy dialogue involving different project partners and stakeholders intended to explore an agenda to develop a future roadmap and innovative models for agricultural mechanization catalysed through direct seeding and other mechanized precision farming. Mapping DSR suitability and crop diversification areas for precision targeting was realized to help the state to target the specific geography for specific intervention. Along with maize, millets, especially pearl millet and sorghum could have a great opportunity in the future for income, food, and nutritional security in the plateau region in kharif fallows. A comprehensive approach with farm mechanisation as the base can ease diversification options and change the agriculture scenario in Odisha. The status of farm machinery and feedback from six district-level stakeholders on farm mechanization were also shared at the dialogue event.

Two panel discussions were organized during the dialogue: 1) "Farm Mechanization – Machines and Services" and 2) "Farm Mechanization – Policy and Behaviour".

### The following points/responses emerged:

#### PANEL-1

- As Odisha govt. is focusing on innovative projects for scaling agricultural mechanization. It should ensure the availability of quality machines at each KVK at the district level, where farmers can see demonstrations by themselves. Govt. of Odisha may start a pilot scheme for DSR demonstrations in all districts. The current subsidy for good agricultural machinery needs to be increased.

- There should be a good linkage between the OUAT farm machinery department and govt. farm machinery testing centres and should jointly organize a demonstration of machines at farmers' fields, and seed drills should be included under the MLTs program.
- Development in agricultural machinery could be done by increasing credit in the system and FPOs, a special subsidy should be converted as CHCs.

### PANEL-2:

- An awareness program should be arranged by the Govt. for the bankers on different agricultural mechanization schemes, policy decisions, and for regularising the credit/DBT.
- Bayer is planning large scale cluster demonstrations on DSR under Direct-Acre Programme through its 100 Better Life Farming (BLF) centers, along with focused activity on the carbon credit program in Odisha.
- There should be a category of higher slab for the govt. subsidy on quality and climate-smart machinery, at least in the initial stage of any new technology.
- To facilitate bank loan approvals, banks may consider alternatives like "agri-score" in place of cibil score (credit score).
- More machines are required in the system and cover large areas under DSR.
- Post-sale repair and maintenance services and the availability of spare parts must be ensured by the machine manufacturers/distributors in the state.
- Software for agri loan is in the process of development. This will help simplify the process of availing of credit. Govt. is planning to develop/introduce special schemes with some incentives to promote some particular technologies including DSR.
- Aggregators role is very important to motivate farmers and hence for popularising any technology like DSR.
- The information gap needs to be bridged, and skill development program is a must for farm mechanisation. This has to be ensured by govt. and manufacturers.
- Convergence among different stakeholders will help generate acceptable recommendations and scaling the technologies.

