

8. Adapting Participatory Approaches to WARDA's Research and Development Strategy

Over the years, WARDA has placed increasing emphasis on participatory research and development in order to render technologies relevant to rice production systems and ensure that they address priority constraints. The underlying strategy has been to actively engage producers and other actors in rice research and development.

In the Sahel, participatory farm characterization has been extensively used for developing socio-economic and biophysical profiles of irrigated rice production systems in the region. These efforts have facilitated the identification of primary constraints and opportunities for increasing irrigated rice productivity. Participatory approaches also feature prominently in successful efforts to evaluate and adapt options for ICM to irrigated rice production environments in several countries in the Sahel. These efforts have facilitated the successful adaptation of ICM in the Senegal River valley, resulting in significant yield and profitability gains for irrigated-rice farmers.

In the rainfed upland and lowland production systems, WARDA and its partners are progressively applying participatory varietal selection (PVS) as an adjunct to conventional breeding, to better address the myriad of production environments used by small-scale rice farmers and the many and varied quality demands of consumers.



Participatory Varietal Selection

In the first season of PVS, farmers select from a range of new breeding lines perceived as best adapted to their own farms and with agronomic characteristics appropriate to their farming activities. During the following two seasons of on-farm evaluation, farmers identify lines best adapted to their production system and with quality characteristics suitable for home consumption or marketing. Within an agro-ecological zone, the most popular four or five lines selected are multiplied and diffused to up to 500 farmers for evaluation over two seasons. The lines most appreciated by the farmers are then recommended for zonal release. Many recently released rice varieties in West Africa stem from PVS activities.

In Benin and Nigeria, WARDA has been testing participatory technology improvement and adaptation in rainfed rice systems (commonly known in WARDA as 'participatory technology development,' or PTD). The method revolves around a cycle of activities, starting with demonstrations of all available technologies (both modern and traditional) on representative (and accessible) farms in the key research sites. Thus, the potential of each technology is clear for all to see. The demonstrations form the focus for field days, which provide a forum for interaction among farmers, researchers and extension agents. Stakeholder meetings are organized both before and after the cropping season, typically with about 100 participants drawn from rice consumers, marketers, researchers, development and extension agencies, NGOs and farmers. These meetings identify the constraints to productivity that need to be addressed, often through the use of a 'problem tree.' They then identify possible solutions and

decide which technologies should be tested on farm and by whom. A smaller ‘technology group’ (10–20 nominees from the stakeholder meetings) determines the practicalities of running the trials and related events (e.g. the mid-season field day).

WARDA has also adopted ‘participatory learning and action research’ (PLAR) in the area of ICM aimed at improving resource use efficiency and rice productivity. PLAR’s objective is to enhance farmers’ knowledge, motivation and capacity to develop and assess solutions to site-specific production constraints, and is facilitated by national and extension services supported by WARDA. PLAR’s strategy involves weekly sessions with farmers, using a wide range of learning tools contained in 28 modules, encompassing technical and facilitators’ manuals, and covering all aspects of ICM. On average, farmers involved in PLAR evaluate three to



five new practices per year (relating mainly to timing of agronomic management practices).

Further reading

- Kebbeh, M., B.S. Diack, A.M. Fermont, M.C.S. Wopereis and K. Miézan, 2000. Assessing profitability and productivity gaps in irrigated rice production in the Sahel: A participatory approach to technology evaluation in Mauritania. Paper presented at the First Regional Rice Research Review Meeting, 10–13 April 2000, M’bé, Côte d’Ivoire. WARDA, Bouaké, Côte d’Ivoire.
- WARDA, 1999. *Participatory Varietal Selection: The Spark that Lit a Flame*. WARDA, Bouaké, Côte d’Ivoire, 32 p.
- WARDA, 2001. Integrated crop management: Getting it right on the farm on a wide scale. *WARDA Annual Report 2000*, pp. 9–19.
- WARDA, *in press*. Participatory learning and action research for integrated crop management in inland valleys. *WARDA Annual Report 2002–2003*, pp. 25–34.