

# Unlocking Sustainable Intensification: Farmer Insights from Senegal River Valley



## 1 Background

- Rapid population growth and limited agricultural resources in sub-Saharan Africa (SSA) challenge sustainable agricultural productivity.
- Sustainable intensification (SI) practices offer a promising approach to improve food security and livelihoods while reducing environmental degradation.
- The core goal of SI is to boost productivity and efficiency within existing farmland while minimising environmental impacts.
- Practices like Integrated Soil Fertility Management (ISFM) and the System of Rice Intensification (SRI) show promise, but adoption remains limited due to unmet expectations, context-specific challenges, financial constraints, and perceived shortcomings

## 3 Methodological approach:

- Data was collected via a standardised questionnaire through a JotBi digital platform from 500 farmers in Podor and Dagana, in the Senegal River Valley

## 2 Objectives

This study explores the perceptions of small-scale farmers regarding the effects of SI practices, with a particular focus on ISFM and SRI in two regions of northern Senegal.

Objectives:

- examines farmers' perception of ISFM and SRI effects on productivity, resource use, production costs and effort, quality of life, and well-being;
- evaluates the gap between the trainings received and expected,
- assesses effects on gender and youths, and
- identifies reasons for dis-adoption and limited scaling



## 4 Findings and discussion

- Responses varied across regions, with Crop rotation as the most common ISFM practice in both areas,
- followed by crop association and organic fertilisers in Podor, and crop-livestock integration in Dagana.
- ISFM in Dagana is linked to higher yields, lower costs, and better quality of life, though water use remains an issue.
- In Podor, ISFM benefits were less apparent, with many farmers reporting no yield or quality-of-life improvements.

- Most farmers received minimal or no SRI training, despite expecting at least three sessions.
- Practices like plant replication and soil drainage are common; however, line seeding and mechanical weeding are rarely used.
- Youth participation in SRI is growing, though they are underrepresented in Farmers' Field Schools.
- Farmers note SRI reduces women's labour but increases men's workload.
- Key barriers to SRI adoption include a lack of equipment, trained labour, and irrigation challenges, and the labour-intensive nature of the practice.

## 5 Conclusions and recommendations

- These findings underscore the need for context-specific training and interventions to support broader ISFM and SRI adoption in the Senegal River Valley

