

PARTICIPATORY APPROACH TO SAWAH RICE TECHNOLOGY DISSEMINATION TO FARMERS CULTIVATING INLAND VALLEYS IN NIGERIA

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Rice production by ecologies in Nigeria

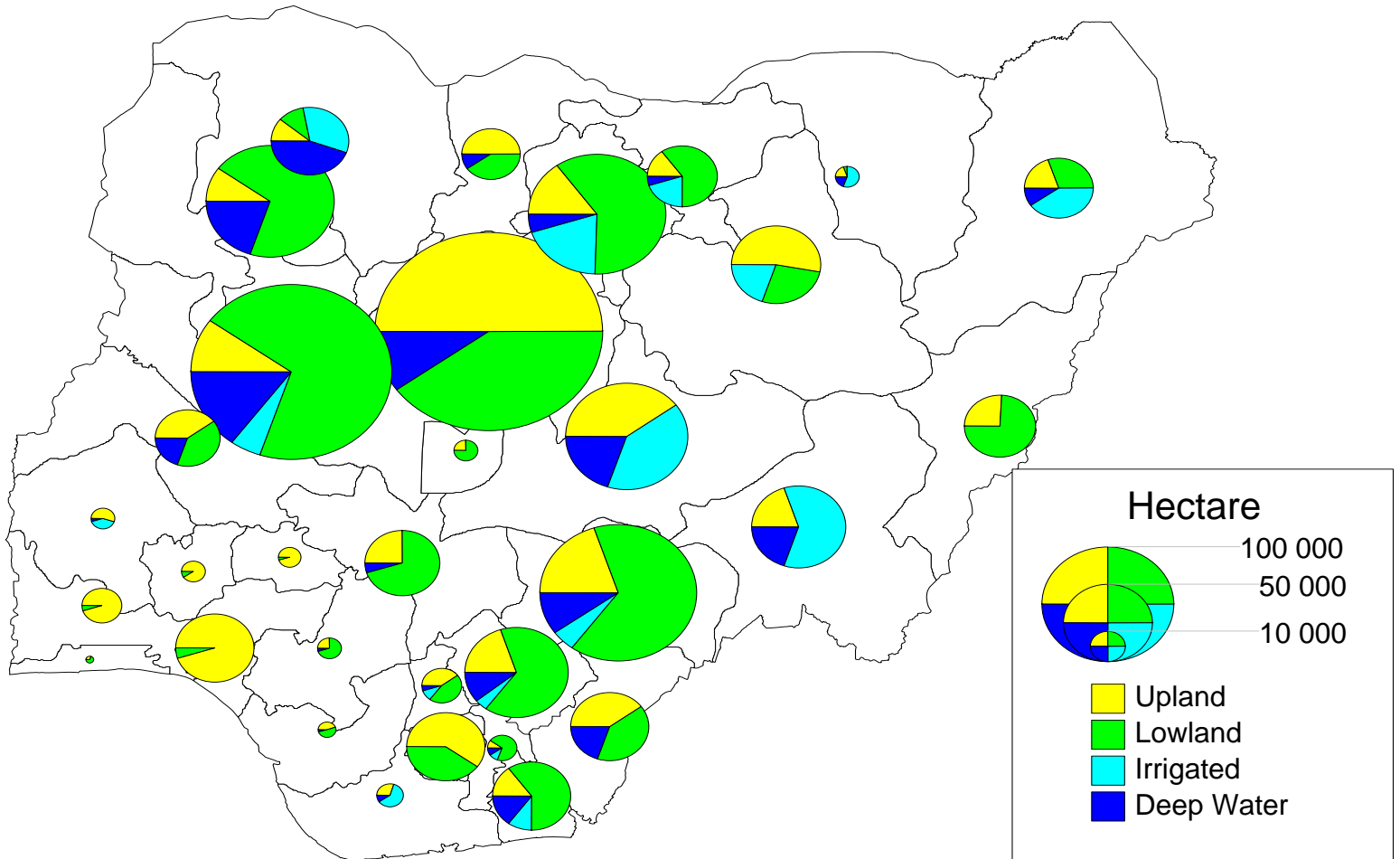
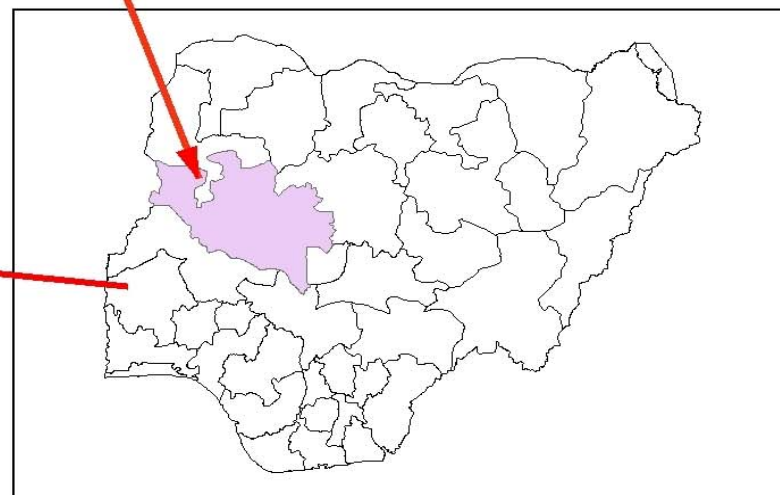
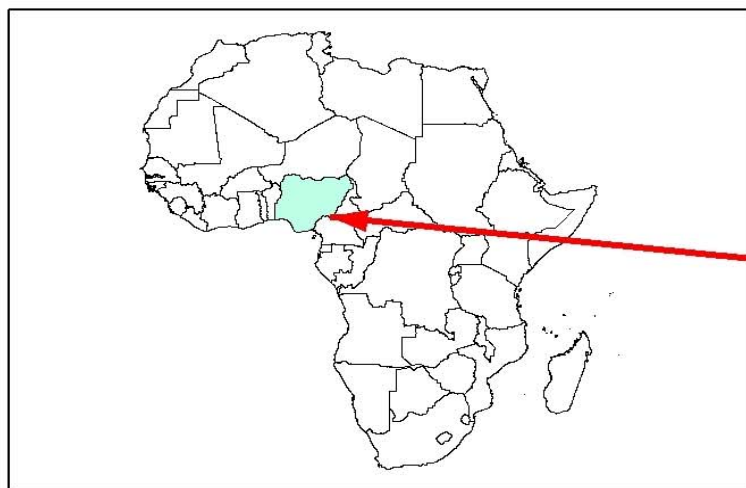
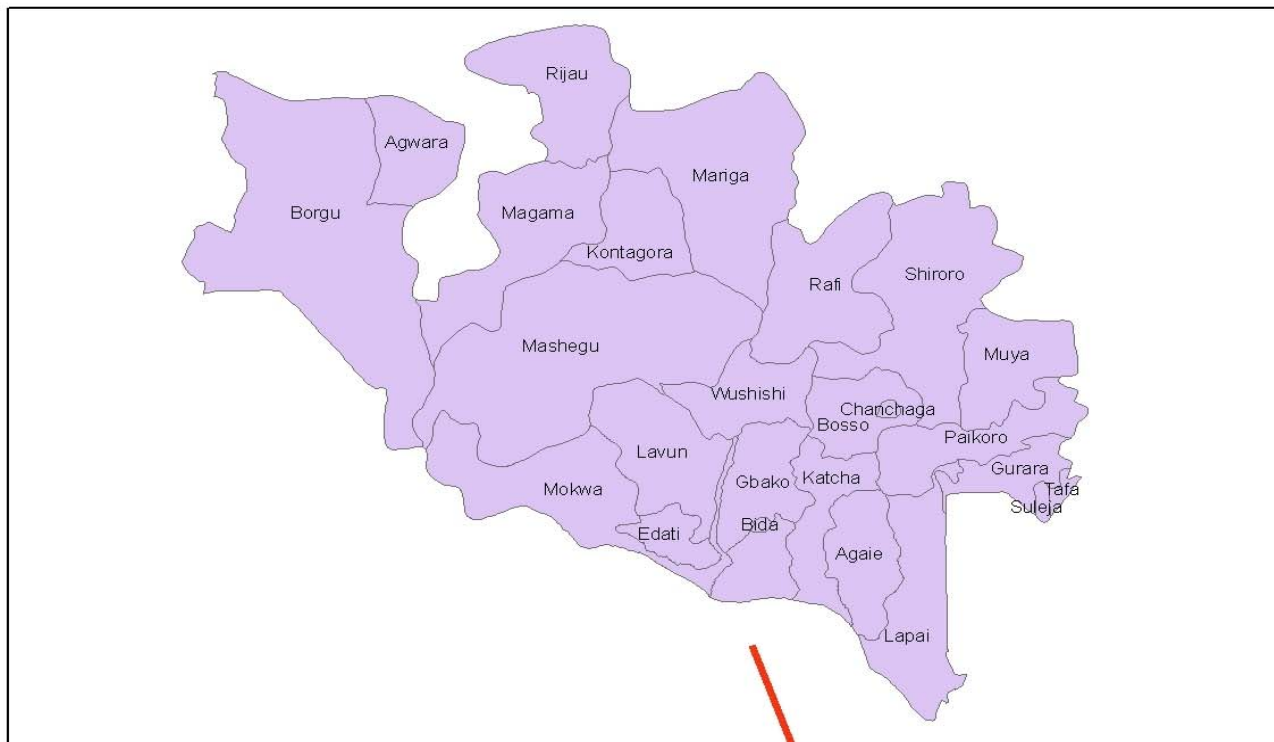


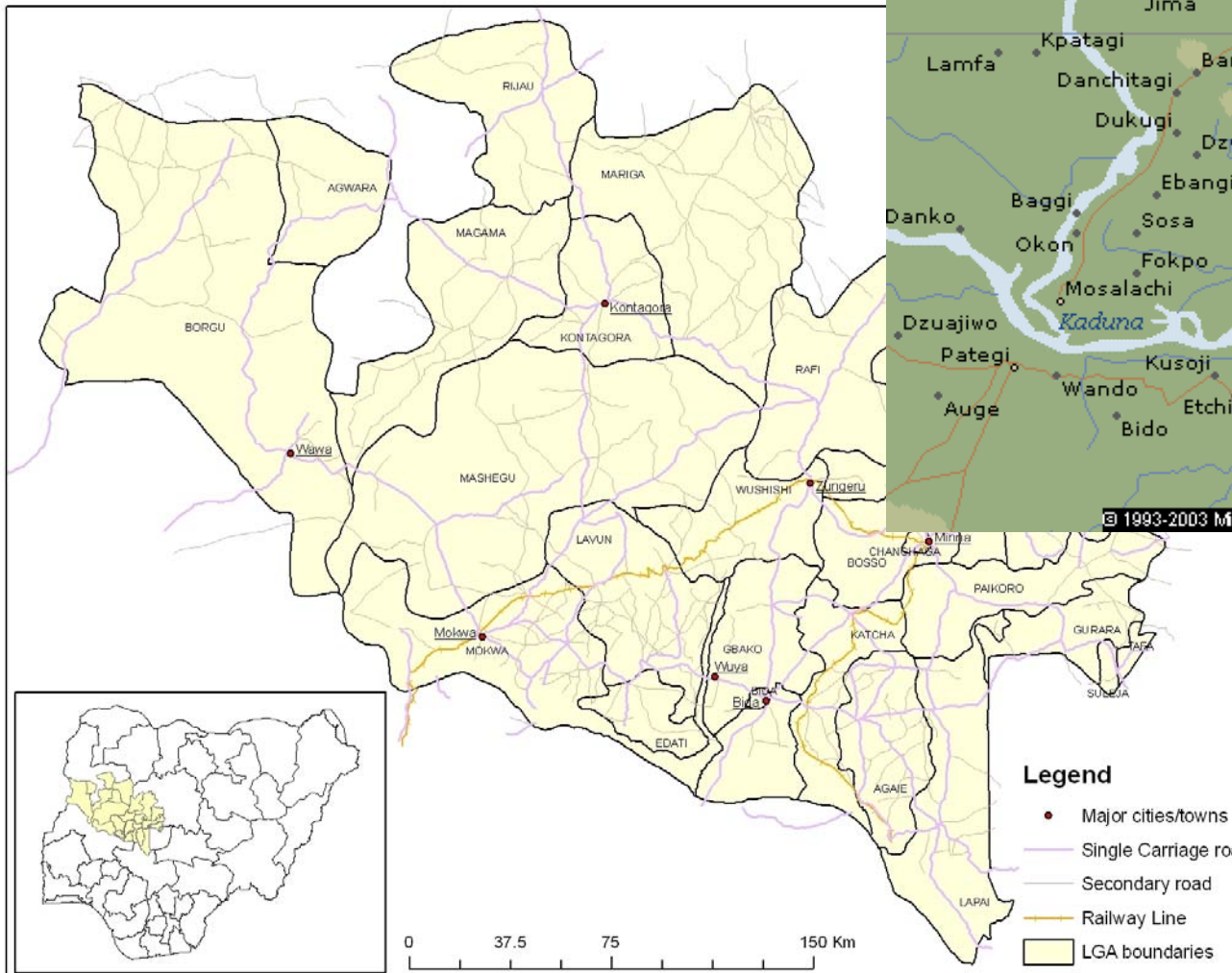
Table 1: Rice Ecosystems in Nigeria with Average Yield

Ecology	Share of Rice Area %	Average Grain Yield t/ha	Share of rice production (%)
Rainfed upland	31	1.5	17
Rainfed lowland	47	2.2	53
Irrigated lowland	16	3.5	27
Deepwater/floating	5	1.3	3
Mangrove swamps	≈1	2.0	1

Focus

Adapting Asian rice production system (Sawah) to African (Nigerian) Rice Farmers for effective soil and water management for high and sustainable rice production







Land preparation using the hoe from grass fallow



Breaking the Mound with hoe beginning of land preparation for Rice



A typical rice land directly seeded

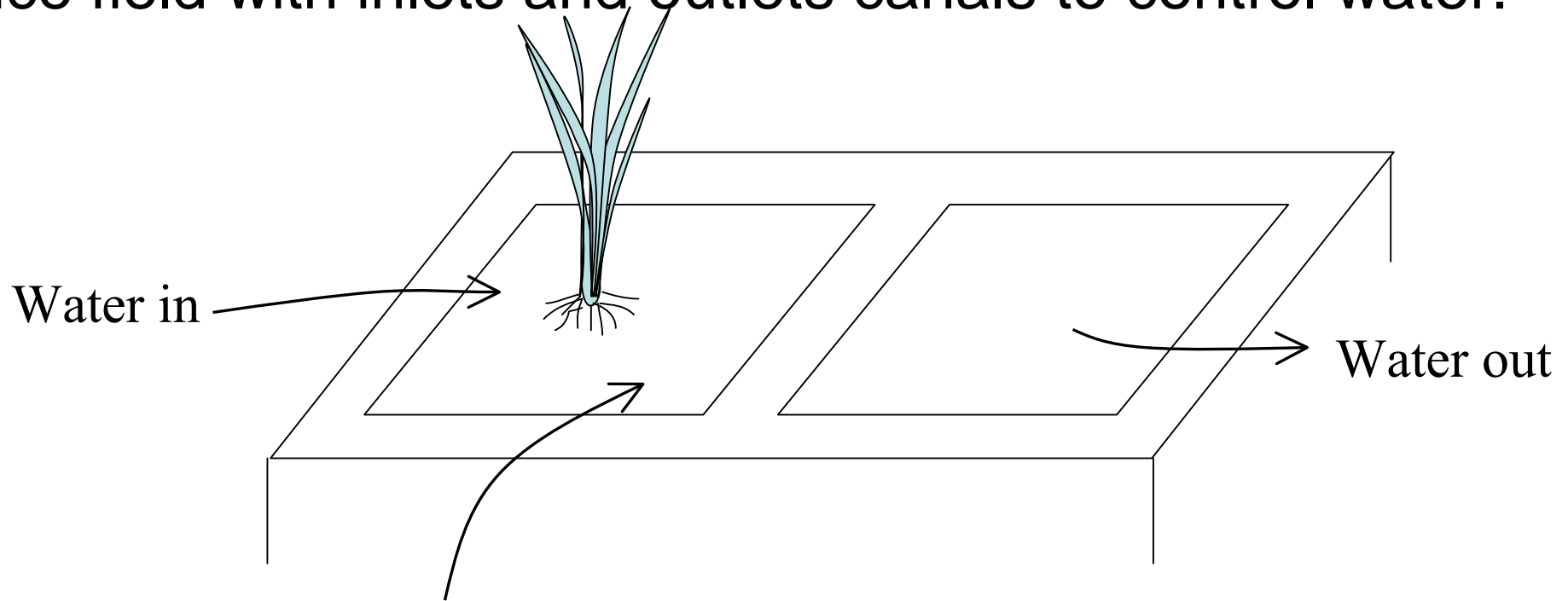


Traditional practice by rice growing farmers in Nigeria



Directly seeded rice under flooded and droughty condition

What is sawah? Sawah is a bunded, puddled and leveled rice field with inlets and outlets canals to control water.



Sawah is man-made improved rice growing environment with demarcated, bunded , and puddled field

Because of diverse soil, geology, topography, hydrology, climate, vegetation, and socio-cultural conditions, the technologies for sawah development & management are very diverse, which are important research and development target for sustainable rice production.

The using of the Power Tiller for puddling and leveling with farmers' participation





Recommended Sawah plot in Bida Nigeria

Rice (variety) and environment (Sawah)
improvement. Both technology must be developed

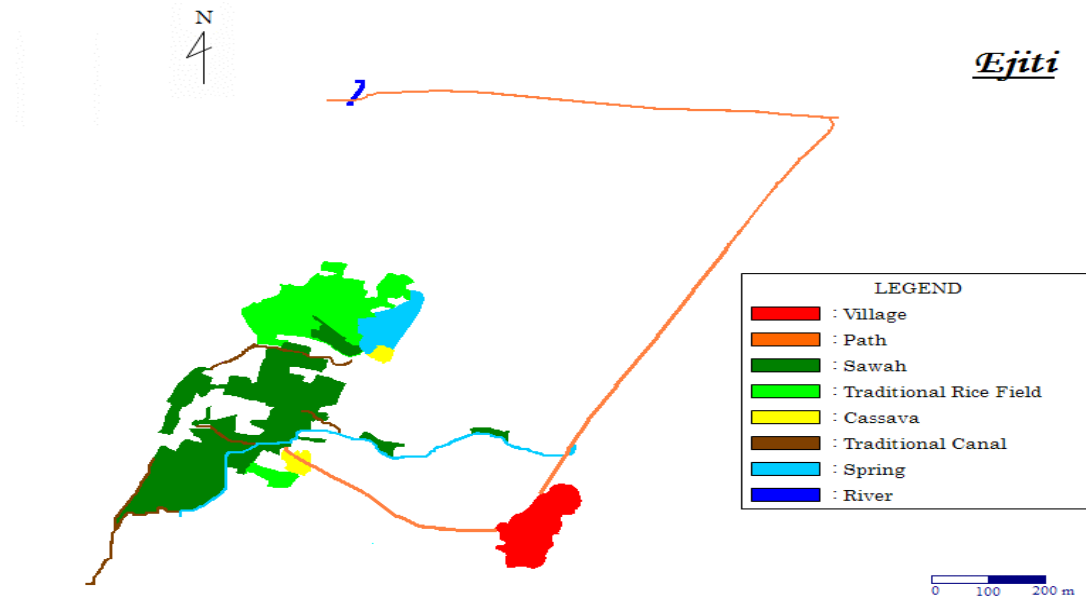


A Sawah plot with good establishment

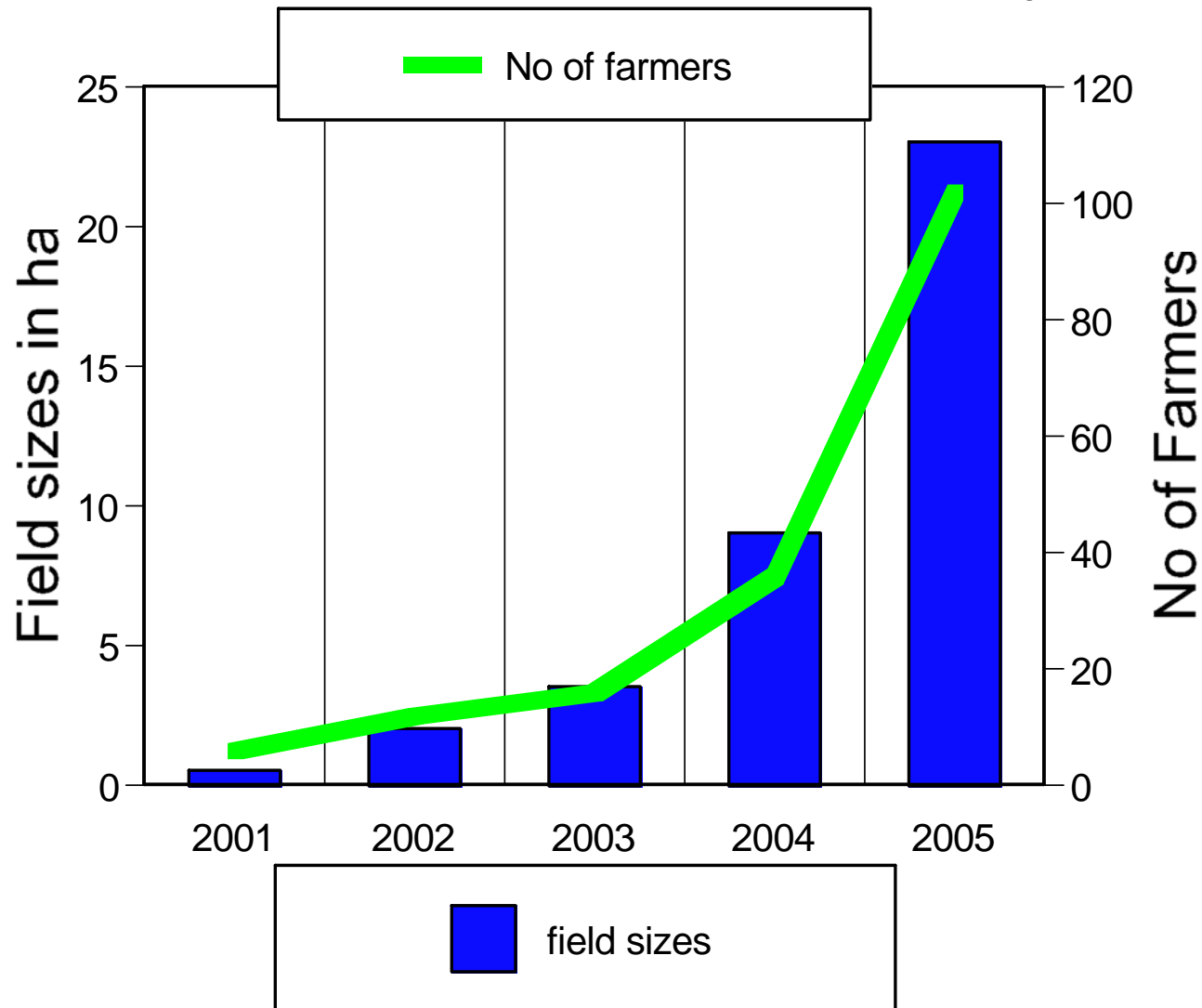




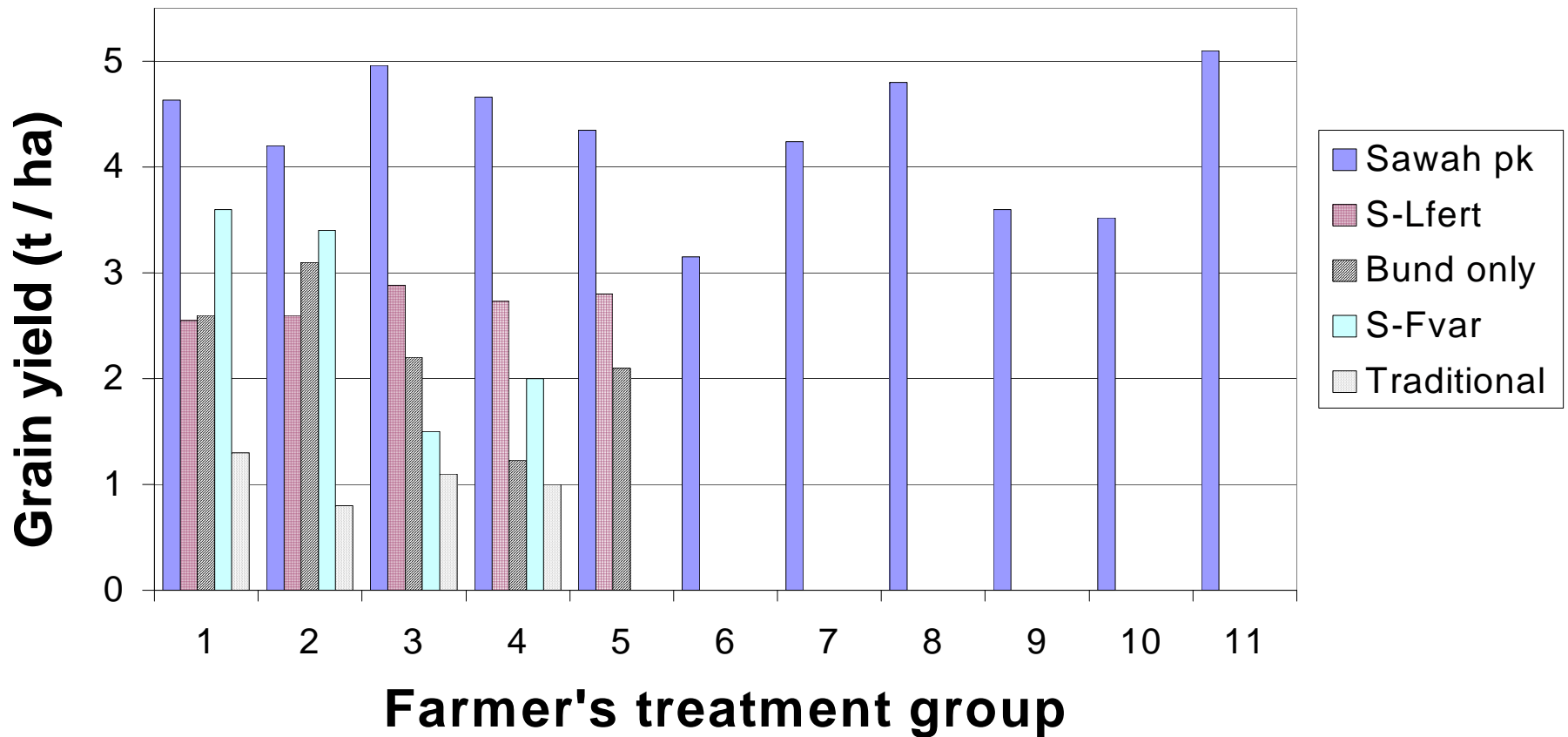
Ejeti our first village with 10ha (more than half of their lowland fields) of Sawah field in 2004



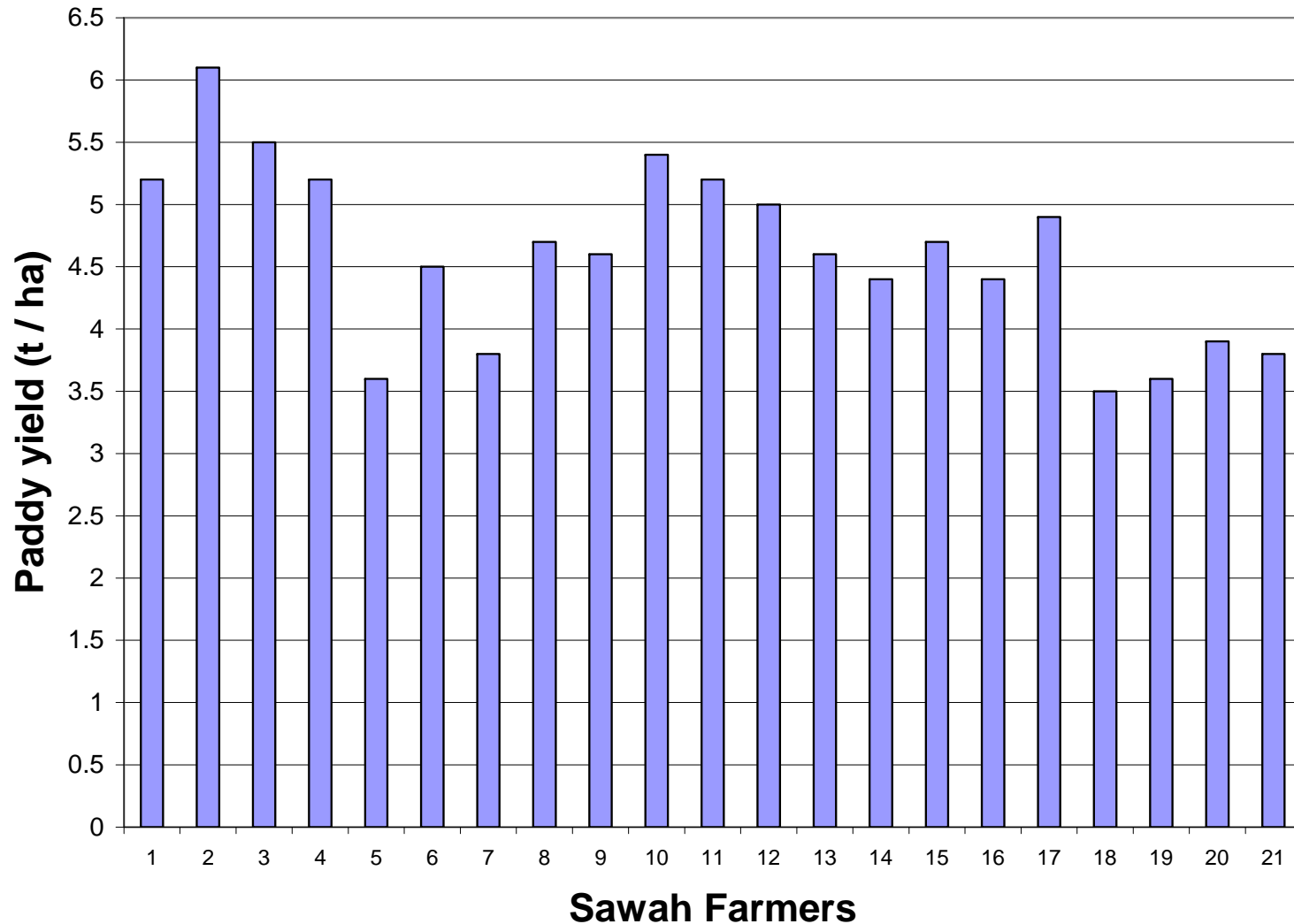
Increase in the number of farmers and area cultivated in five years



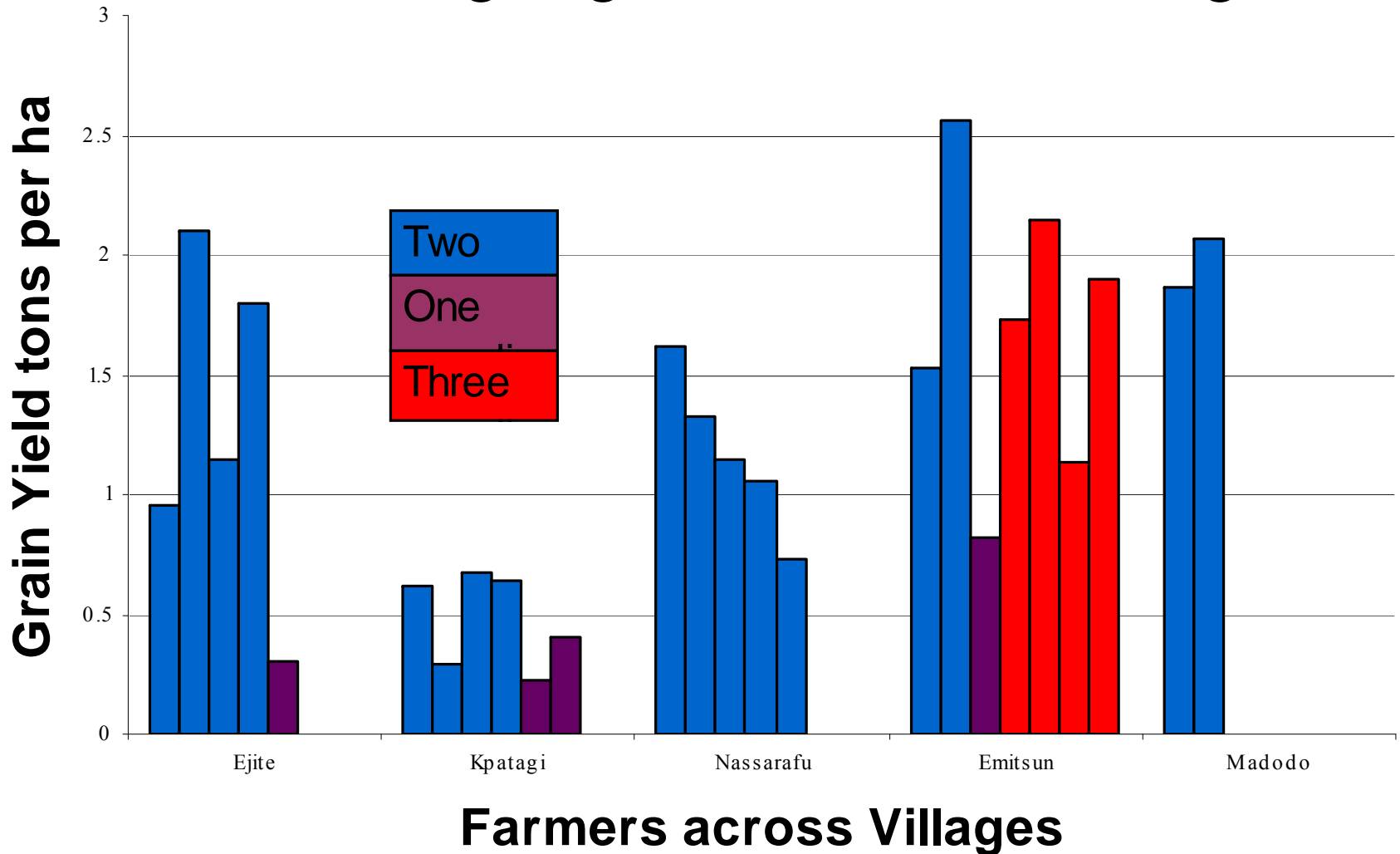
Grain yield across locations within sawah group in 2004



Grain yield in 2005 across villages



Grain yield of non sawah farmers with different weeding regimes across 5 villages



Conclusion

- ✓ Sawah Package will more than double current yield levels
- ✓ Sawah system is a sustainable rice production system as seen in Asia
- ✓ The use of Power Tiller is an important component for increase productivity
- ✓ We cannot achieve Green Revolution with cutlasses and hoe
- ✓ The location of the demonstration field in the midst of farmers' field enhances farmers participation and adoption

How to achieve Green Revolution

- Sawah System is the missing link to our Green Revolution
- The technology is a combination of the following:
 - The use of high yielding variety,
 - Row planting for optimum plant density
 - Efficient use of fertilizer
 - Bunding for water control – inlet and outlet channels
 - Better weed management



Thank You for listening



Power tiller (A two-wheel hand driven tractor)