

# SAFE-World Project/Initiative Summary

**Country: India**

Project/Initiative Title: Rice-wheat consortium for the Indo-Gangetic plains Tillage and crop establishment work – Haryana - India  
1990s

Scale: regional

Nos. farmers: 600 farmers

Hectares: 1000 ha

Agro-Ecological Zone: IV

Improvement types

1x	2	3	4	5	6x	7	8	9
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Success and Limits to spread

Success	Limits
3d	3a

## A. Key Impacts

### ***A1 – Productivity***

	Before/Without	After/With	% change
Wheat	2400 kg/ha	3000 kg/ha	0-25%

### ***A2 – Impacts on natural capital***

An equal or up to 25% increase in yields with the new tillage options depending on how much earlier we plant the zero-till plots. But we save considerably on cost (1000 Rs per acre) and use of fuel (40-50 litres per acre). Also savings in water (20-30%), less herbicide use, more fertilizer efficiency. A very green technology. so saves natural resources. Erosion is not a problem in the rice-wheat areas of South Asia

### ***A3 – Impacts on local community (social capital)***

Households better off - Increases profits since costs of production are reduced

### ***A4 – Impacts on households and individuals (human capital)***

Yields are increased at less cost so food is more available  
we save considerably on cost (1000 Rs per acre) and use of fuel (40-50 litres per acre)  
reduced wear and tear of tractors and accessories

**A5 – Key changes in farm / regional system**

zero-tillage meant earlier, timely planting and therefore higher yields and input efficiency at lower cost.

*Changes in input use:* Reduces use of fuel and tractor parts. Increases efficiency fertiliser and water.

*Change in local/ regional food security:* Increased food security by increasing production. Less weeds and so less herbicide use.

The technology was accepted by farmers once he had a chance to see it and get the equipment needed to adopt it. We are just starting to see results and acceptance and it will take a few more years before the full impact can be assessed.

**B. Types of Sustainable Agriculture Improvements**

Type 1: Better use of available renewable natural capital

Type 2: Intensification of single sub -component of farm system

Type 3: Diversify by adding new productive natural capital and regenerative components

Type 4: Better use of non-renewable inputs and technologies

Type 5: Social and participatory processes leading to group action for making better use of natural capital

Type 6: Human capital building through training-learning programmes

Type 7: Access to Finance

Type 8: Add value by processing to reduce losses and increase returns

Type 9: Add value by direct or organised marketing of produce to consumers

	Yes/No	Narrative
Type 1	x	Reduced and zero-tillage establishment of wheat after rice
Type 2		
Type 3		
Type 4		
Type 5		
Type 6	x	Farmer participatory and local machinery manufacturer participation. Village level groups.
Type 7		
Type 8		
Type 9		

**C. Key Lessons: Success, Spread and Constraints**

**C1 – Key Lessons Learned**

The need to get the NARS as full partners in the process. They must be convinced of the benefits that can accrue to them by collaborating. Farmer participation a must. Local manufacturers needed to be involved. The technology must be evaluated and fine tuned through farmer feedback directly in farmer fields.

***C2 – Aspects of local/national context contributing to success***

Partnership with NARS scientists after they agreed the technology was good.

***C3 – Limitations preventing spread***

Availability of more equipment needed to practice the new tillage options. Extending the technology to more clients

***C4 – Policy issues***

Mainly availability of the equipment and farmers seeing for themselves the benefits

***C5 – Scaling-up***

More local manufacture of equipment and making it available for farmer experimentation.

**D. Contact Point for Project/Initiative**

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