

SAFE-World Project/Initiative Summary

Country: Brazil

Project/Initiative Title: Evolving Learning in Designing Agroecological Farming Systems With Small-Scale Farmers in Zona Da Mata, Brazil
1993

Scale: up to regional

Nos. farmers: 215

Hectares: 50

Agro-Ecological Zone: XIII

Improvement types

1x	2	3x	4	5x	6x	7	8	9x
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A. Key Impacts

A2 – Impacts on natural capital

- ?? Set up of a conservation park with 13200 ha with contribution of small-scale farmers and farmers' Unions influencing set up of boundaries and contributing for the management plan.
- ?? Set up of buffer zones in 5 municipalities around the park making farmers aware of rights and mobilised to assume operation of the park

A3 – Impacts on local community (social capital)

- ?? Empowerment of 5 small-scale farmers' Unions, articulated at regional level into an Association.
- ?? Purchase of machine to process coffee berries at farm level favouring direct selling in the market.
- ?? Set up of 2 farmers' associations to process and market goods.
- ?? Set up of a small-scale farmer trade-mark used by associations to market goods.

A4 – Impacts on households and individuals (human capital)

Diversification of food sources not used before due to cultural values. Adoption of medicinal plants for healing.

A5 – Key changes in farm / regional system

- ?? 110 farmers adopting green manuring; 70 farmers adopting soil conservation techniques; 35 farmers adopting agroforestry systems
- ?? No. of hectares under sustainable agriculture: The single data recorded was 23 ha in 1995. The area vary enormously yearly
- ?? Changes in input use: Rational use of fertilisers and lime. Elimination of use of pesticides in coffee crop from management change of fertility and adoption of biofertilizers.
- ?? Change in local/ regional food security: Breeding of maize and beans adapted for local conditions increased production and resistance to storage pests.

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	Composting
Type 2		
Type 3	x	Diversification of cropping systems including legumes, shrub management and trees evolving toward agroforestry.
Type 4		
Type 5	x	PRA techniques to motivate, involve and articulate social groups. Institutional articulation involving university researchers, small-scale farmers' Unions, NGOs and GOs.
Type 6	x	
Type 7		
Type 8		
Type 9	x	?? Improvement of animal feeder supplies. Set up of a collaborative groups to buy and prepare salt mix supply for cattle. ?? Processing coffee berries, industrialisation of coffee to sell in the regional market.

C. Key Lessons: Success, Spread and Constraints

C1 – Key Lessons Learned

Lessons learned from the methods used within the programmes		
<i>Method</i>	<i>Lessons learned by actors involved in the programmes</i>	<i>Contribution to scaling up the impact¹⁸</i>
PRA in 11 communities in Araponga	Farmers design multiple farming systems. Farmers learn from each other. CTA-ZM (NGO) recognised their own lack of knowledge and sought deeper understanding.	Engaged self-confident farmers in LDP (Local Devel. Programme) . Increased membership of STR (Farmers' Union) . Engaged researchers into action-research.
Survey of tree use in farming systems	Farmers design alternative farming systems. Look at realities searching for similarities and dissimilarities.	Connected innovative farmers with farmers, researchers and CTA-ZM. Increased farmers' engagement on action-research.
D&D in two watersheds in	Farmers know and use a large number of species of trees and shrubs in farming	Increased the number of farmers engaged in LDP at local level

Araponga	systems	
Participatory methods to design farming systems	Participatory methods must question outside values and systems against internal ones, not accept them as rigid design principles	At the start of the LDP more farmers tried alternatives, but later numbers dropped
Soil erosion research	Eco-logical small-scale farming environment is extremely diverse. Scientific and technical knowledge can be useful if developed together with farmers.	Did not enlarge the number of farmers adopting alternatives but produced eco-logical arguments for farmers to account to keep trials.
Development of producer associations	Institutions can carry on common interests beyond individual capacities. Alternative systems depend on a minimum scale of adoption to be feasible.	Increased number of farmers that adopt eco-logical techniques
Participatory monitoring of agroforestry	Different actors have diverse interests and values. Designing new systems has to accept a trade-off among those interests and values.	Did not increase farmers adopting alternatives but made room for commitment to improve designs and maintain trials
Participatory environmental stratification	Agro-logical small-scale farming environment is extremely diverse. Farmers ask for site-specific data.	Did not influence the number of farmers adopting alternatives.
Participatory evaluation of the design methods	Farmers' own innovations and the positive aspects of conventional approaches were neglected in the design process. Farmers complexify systems to fit their own situations.	Did not raise the number of adopters.

C2 – Aspects of local/national context contributing to success

Farmer involvement of communities in group development lead by church.

C3 – Limitations preventing spread

No involvement of research institutions which are in charge for breeding varieties of coffee adapted to local conditions.

C4 – Policy issues

Credit available for medium to big landholders. Interest rates are risky for small-scale farmers. Research approach does not focus on saving input technologies.

C5 – Scaling-up

Improve the systems technically including varieties of coffee adapted to local conditions. Support market initiatives to assure selling goods.

D. Contact Point for Project/Initiative

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