

Annex 2. Summary of Good Practices and Problems in Improved Stoves Programs

A2.1 The improved stoves projects in Guatemala have included good practices that should be drawn on and taken into account in the implementation of a national improved-stove program, as well as weaknesses that should be avoided or addressed. Both the good practices and the weaknesses of the projects are synthesized below in this Annex.

Good Practices from the Three Case Studies

A2.2 Good practices in the projects include the use of methodologies that promote community participation and local capacity building with a focus on women, participation of actual users in the design of the stoves, and commitment by people from the community to help build the stoves.

A2.3 Because of the multiethnic, multicultural, and multilingual nature of Guatemala, the tendency of the projects to focus on defined geographic areas allowed them to do more intensive work with groups of people who had similar ethnic and cultural backgrounds. Also, hiring staff from the project area facilitated the management of local resources for implementing the projects, improved communications between the project and the communities, and strengthened support and training activities.

A2.4 Using stove models that incorporate ergonomic and safety considerations, that are functional for cooking food, and that provide economic and health benefits also contributed to the users embracing the new technology.

A2.5 Having the users pay part of the stove's cost (the share covered by users was about 40% in the Tezulutla'n Project, 30% in Intervida, and 10% in the FIS program) contributes to reducing their dependence on social assistance projects.

Table A2.1. Positive Aspects of the Improves Stoves Project Case Studies

ASPECT	PROJECT		
	TEZULUTLA'N	FIS	INTERVIDA
INSTITUTIONAL	Family focus	Implementation capacity	Participation of local population
	Participation of women and the family in design and construction of the stove	Job creation (private Guatemalan firms)	Decentralized implementation units
	Collective responsibility for the stove	National scope (Departmental Offices)	Joint NGO-community effort (contributing 30% of the stove's value)
	Gender focus	Participation of local population	
	Reducing dependency on the NGO (contributing 45%	Identifying community priorities through participatory	

	toward the cost of the stove) Local capacity supports the sustainability of the project Participation by local population	practices Evolution toward greater community participation.	
TECHNICAL	Use of materials available locally Ergonomic criteria used in design Safety criteria used in design Wood-saving design	Wood-saving design Durable materials Replicable	Wood-saving design Durable materials
FINANCING	Participation of users in paying for the stove (45%)	Participation of users in covering part of the stove's cost (10%)	Participation of users in covering part of the stove's cost (30%)
COMMERCIALIZATION	Marketing of the stove in local hardware stores Support to local artisans		

Weaknesses Found in the Case Studies

A2.6 The projects' lack of systematic community feedback, monitoring, and evaluation, the absence of research and technological development, and the poor quality of some of the stoves were obstacles to making improvements to the stove models and prevented the users from have more and better options.

A2.7 In addition, the high subsidies provided for the stoves and the lack of a direct relationship between vendors and users caused market distortions, elevated prices, and failed to develop the commercial structures necessary for the projects to be sustainable.

A2.8 There was also a lack of technical assistance to support modifications and innovations to the stove models, which would allow costs to be reduced and more effective and efficient models to be developed. This can be done by conducting trials, certifying quality, consulting with stove users, and training stove builders.

Table A2.2 Weaknesses of the Improved Stoves Project Case Studies

ASPECT	PROJECT		
	TEZULUTLA'N	FIS	INTERVIDA
INSTITUTIONAL	- Lack of monitoring during construction - Lack of project evaluation - Project is not self-sustaining	- Lack of integration of the project team - Centralization of decisionmaking power - Lack of feedback - No research of technological development work - No participation by users in designing the stove - No gender focus - Not a self-sustaining PROJECT	- No research or technological development work - No participation by users in designing the stove - No gender focus - Lack of PROJECT evaluation - Project is not self-sustaining

TECHNICAL	• Users have little access to some stove components • Difficulty transporting the clay chimneys (fragile) • Lack of standardization in stove components that affect efficiency •	• Poor construction quality •	• Poor construction quality •
FINANCING	• Dependence on international donations • Subsidy of some components of the stove, plancha, chimney, bricks, transportation (55%) •	• Dependence on international aid • Subsidy for everything except local materials and unskilled labor (90%) •	• Dependence on international aid from the sponsors • Subsidy for bricks, plancha, chimney, and transportation (70%) •
COMMERCIALIZATION	• No structures created for commercializing the stove (currently only certain parts of the stove are sold in the municipal seats)	• There is commercialization only at the PROJECT-builder level (dependence on the programs) • No structures created for commercializing the stove (currently only certain parts of the stove are sold in municipal seats)	• There is commercialization only at the PROJECT-builder level (dependence on the programs) • No structures created for commercializing the stove (currently only certain parts of the stove are sold in municipal seats)

Table A2.3 Comparisons of Stove Issues for Six Villages in Three Improved Stove Projects

					Problems				Replacements or modifications ***					Changes suggested by users					
Community	Project	Year stove was built	Total number of stoves	Sample size	Chimney	Plancha	Firebox	Accessories	Poyetón	Chimney	Plancha	Firebox	Accessories	Poyetón	Change chimney	Size or height of stove	Appearance of stove	Added features**	Change poyetón
San Antonio	Intervida	1998	41	14	5	4	5	1	5	7				6	●	●		●	
Los Achiotés	FIS	1999	28	10	5	1	1		4	1	1	1			●				
Quiaté	Tezulutla'n	2000	74	17	4	7				4		1		1			●		
Cantel	Intervida	2000	50	18	1	2	9		4										
Pahoj	Tezulutla'n	2001	28	7					1	1	1	1		1			●		
Los González	FIS	2001	65	21	1	1	1	7	2		1	6		1		●	●	●	
TOTAL				87	16	15	16	8	16	13	3	9		9					

Source: Estudio de Evaluación de Programas de Estufas Mejoradas en Guatemala, September 2002.

* Of all the stoves sampled only one, in Los Achiotés, was not working.

** The additional features suggested by users are: an oven, a space to store firewood, a clay comal, and a water heater.

*** The replacements or modifications made were not always due to failed components.