THE FAILURE OF AN INITIATIVE TO IMPROVE CAMPING STOVES IN HAITI

Summary: As part of the fight to promote health, the protection of the environment and access to energy, the experience of Recho Mirak (improving charcoal cooking stoves) began at the beginning of the 1980s in Haiti. 30 years later, a detailed analyses highlighted the reasons for its failure and the challenges in must still face.

AUTHOR(S)
Thomas Thivillon
Coordinators of the access to energy program
thomas.thivillon
@entrepreneursdumonde.org

Report written by:
Pauline Riffier

PROGRAMME
Start date: 1980
Implementation site: N/C
Budget: N/C
Source and specificity of funding:
Government of the Netherlands, USAID, World Bank

ORGANISATION(S)
Bureau des Mines et de l'Energie d'Haïti (BME), Care et Banque Mondiale
Delmas 31, Rue Jacques 1er
#11 N/C
http://www.bme.gouv.ht/
Employees: N/C
Volunteers: N/C

BACKGROUND OF THE PROGRAMME
Haiti suffers from massive deforestation (using the wood for charcoal), high population density, extreme poverty and very poor natural resources (the population depend on biomass for more than 70% of their needs). These difficulties have brought about a grave human an environmental crisis. In Port au Prince, the population use different types of stoves, all of which are pollutant, harmful, inefficient and have a very limited life.

GOALS OF THE PROGRAMME
At the beginning of the 1980s, the Recho Mirak stove was designed: it's a carbon stove in metal which is easy for craftsmen to make, easy to use, is cost-efficient as it uses less fuel and emits less noxious gas. The promotion of energy efficient stoves and the importation of transitional fuel has alleviated the pressure on biomass and improved the state of the users healths while reducing their daily expenses by creating local jobs (distribution chain).

IMPLEMENTED ACTIONS
- The training of local craftsman and then the design and production of the Recho Mirak.
- CARE-BME (1996 - 2002): Feasibility study on the distribution of improved stoves; distribution by Recho Mirak and promotion on a big scale (TV/radio/local demonstrations)
- World Bank Program: Training of craftsman and modernisation of the production chain; marketing and awareness campaign (radio/TV/public demonstrations); standardisation and certification of stoves

QUANTITATIVE AND QUALITATIVE RESULTS FROM THE IMPLEMENTED ACTIONS
- Several craftsmen trained (CARE, BME, World Bank) and grouped in the “National Association of Stove Producers” (ANEPRE).
- CARE-BME Program: At least 20 000 stoves sold to Haitian households; due to a campaign 81.2% of people had heard of Recho Mirak in Port au Prince
- World Bank Program: around 30 000 stoves sold through intermediaries from the trained artisans.
- Fuel savings of 13 to 17%, up to 15 Kg of charcoal saved each month (family of 5 people).
Genesis of Recho Mirak:

Recho Mirak is a local response to the dependence of Haitian households on charcoal and to the lack of efficiency of traditional ways of cooking. It comes from a research and development project carried out between 1983 and 1986 by the Energy and Mining Bureau (BME), a Haitian state agency. This project forms part of much larger initiative on forest management using financing from the Canadian Centre for International Research and Development and the World Bank. It lead to the creation of a prototype of an improved stove which met the objectives of several distribution efforts at the end of the 1980s and the beginning of the 1990s. The most notable of them was implemented by the French Association for Voluntary Progress and contributed to the sale of 6000 improved stoves in 1989 and 1990. It is only with the entrance of CARE onto the scene in 1996 that a project of greater scope has been dedicated to the promotion of this stove. It was also at this time that it took its name "Recho Mirak".

The energy crisis in Haiti:

With a geographic surface of a little under 28 000 Kilometres squared and a population currently estimated a close to 10 millions, Haiti is the most densely populated developing country after Bangladesh. The combined effects of this high density; a high level of poverty and very poor natural energy resources are the basis for an environmental and humanitarian crisis without precedent. Due to lack of means, the population depend on biomass, wood and charcoal for more than 70% of their energy needs. The intensive and unsupervised logging has prevented the resources being handled sustainably and the World Resources Institute estimates that the country lost nearly 50% of its natural forest between 1990 and 2000. Deforestation has significant corollary issues in terms of agricultural productivity but also on the countries resilience to natural catastrophes like floods and droughts. It especially weighs on the economic development of the country: the average household in Port au Prince might spend up to a third of their daily on charcoal, therefore destroying all possibility of freeing a part of their domestic budget for activities which contribute to human development such as health or education. In the absence of significant fossil fuel resources, the long term response to the Haitian energy crisis is to put in place principals of management for sustainable energy for word and to develop alternative sources of energy such as ethanol or briquettes of charcoal produced through vegetable waste. Nevertheless, these different measures are still in the early stages and should be complemented by other short term measures: the promotion of using energy with restraint, notably through the distribution of energy efficient cooking stoves as well as the importation of transitional fuel such as GPL or Kerosene, which would alleviate the pressure on biomass.

BIBLIOGRAPHIC REFERENCES


TO KNOW MORE

The Recho Mirak design, although is still has shortcomings, has made significant progress in terms of fuel saving, in daily expenditure for the users and without doubt a reduction in health risks.

PARTNERSHIP(S) DEVELOPED IN THE CONTEXT OF THE PROGRAMME

USAID, CARE, BME (Energy and Mining Bureau), World Bank, CAFEM

FEEDBACK

Difficulties and/or obstacles encountered during the programme’s implementation:

- The stove's faults: rough final production of the supports holding up the cooking utensil (unstable, risk of spilling the food), short life time (6 months), uninteresting appearance, poor value for money (200 to 400 Gourdes compared to 75 to 100 Gourdes for traditional stoves).
- Lack of standardisation, difficult to control: fragmentation of producers, rising tests with the number of producers, counterfeiting.
- Out of 1665 households in Port au Prince, only 4.3% envisaged buying a Recho Mirak.
- The publicity campaign from CARE/BME was based on fuel savings and the protection of the environment but didn't encourage people to buy.
- Absence of appropriate distribution channels (barrier for the distribution of improved stoves) feebleness of sellers (uncertain commercial potential, unwilling to take the risk).

Solutions used to overcome the difficulties and/or obstacles:

- CARE/BME Program: took responsibility for deliveries holding up the cooking utensil (unstable, risk of spilling the food), short life time (6 months), uninteresting appearance, poor value for money (200 to 400 Gourdes compared to 75 to 100 Gourdes for traditional stoves).
- World Bank: set up a distribution cooperative with a local contractor CAFEM (but poor margins meant operational costs weren't covered and the initiative was ended).
- World Bank and BME: Certification of the production (logo "QEEL")

Suggestions for future improvement:

- To reliably estimate the level of carbon monoxide emissions and judge the impact on the consumption of charcoal.
- To strengthen the distribution chain: advanced stock to sellers, identify and accommodate the wholesalers (needs a multi-product activity), involve the PME network (semi) industrial.
- The model must be significantly more efficient if it is to have a longer duration and a more modern and attractive design.

Summary of factors responsible for the programme’s success:

- Principal criteria of the users: speed of bringing water to the boil, cleanliness of the drum (recuperation of ashes), affordable price (weak buying power of the population) easily detachable grill (handling of charcoal and embers and cleaning of the drum).