JATROPHA : A SUCCESSFUL PROGRAMME FOR PROJECT MANAGERS AND FARMERS

Summary: The four smallholder-based Jatropha projects, developed by Eco-Carbone, define the social, technical and economic prerequisites and the necessary management strategies necessary for such projects to succeed, both for the project operator and the farmers.

AUTHOR(S)
Julien Chantry
CEO Eco-Emerald
j.chantry @eco-carbone.com

Report written by:
Pauline Riffier

PROGRAMME
Start date: 2008
Implementation site: Mali, Indonesia, Vietnam, Laos
Budget: N/C
Source and specificity of funding: N/C

ORGANISATION(S)
Eco-Carbone
15 Avenue de Ségur
F-75007 Paris
http://www.eco-carbone.com
Employees: N/C
Volunteers: N/C

BACKGROUND OF THE PROGRAMME
Jatropha is a perennial oil-bearing shrub, native of Mexico. Jatropha has received world attention in the past 10 years as a potential alternative to fossil fuel. This “new” plant was dubbed wrongly a "miracle" crop at a time when fossil fuel prices skyrocketed; this has attracted the attention of NGOs and large multinational companies alike. Unfortunately, not enough attention was given to developing the market in anticipation of the project’s termination.

GOALS OF THE PROGRAMME
In Eco-Carbone’s four smallholder projects, farmers are the actors of their own development and a long-term economic relationship is developed between a project operator and the farming communities. The aim: to favour farmers’ livelihood sustainably.

IMPLEMENTED ACTIONS
- 2008, Jatropha Mali Initiative (JMI) founded in Kita, Kangaba and Bafoulabé districts
- 2009, PT Eco-Emerald Indonesia (EEI) founded in Jayapura and Biak Regencies (Papua Province)
- 2010, Eco-Energy (EEV) founded in Bac Binh and Tiy Phong districts, Vietnam
- 2010, Tan Phuc Linh (TPL) founded in all districts of Savannakhet, Laos
- Regular field visits and data collection (localization and density of plantations, trees planted, maintenance status, recording of new farmers, contract signing, etc.) organized by Eco-Carbone’s agronomists and project managers
- Research studies (agronomists) organized to have a better understanding of the dynamics of the farming systems, the place Jatropha occupies and could occupy in these systems
- Small scale research experiments organized to optimize Jatropha cultivation practices in farmers’ conditions
- To define a suboptimal time of the year to establish the Jatropha plantation (collaboration between Project teams and farmers)
- A R&D programme has set up to find the optimal cultivation practices
- Initial stages organized to present better adapted techniques and farming practices
- Collaboration with Quinvita (a company specialized in Jatropha breeding) to select the genetic material best adapted to the different ecological conditions an double the existing yields
QUANTITATIVE AND QUALITATIVE RESULTS FROM THE IMPLEMENTED ACTIONS

- Farmers own the land they till and remain the sole decision makers concerning its use
- Eco-Carbone’s subsidiary provides free technical advice to farmers through teams of locally based field technicians
- Eco-Carbone provides seeds or seedlings either free of cost or at a subsidised rate
- Eco-Carbone’s subsidiaries purchase Jatropha grains from the farmers at a fixed price for a given quality standard
- Plantation’s suboptimal time: before the inception of the rainy season or after the end of the sowing of their usual crops
- The carbon project developed in Mali was validated in 2012
- 2007: EC’s subsidiary JMI had sold 400,000 tCO2e to Novartis (a pharmaceutical company). 2012: first delivery of carbon credits

ORIGINAL CHARACTERISTICS

Eco-Carbon’s managers put farmers’ wishes at the heart of the project, and developed programmes on a long-term, by public/private partnerships.

PARTNERSHIP(S) DEVELOPED IN THE CONTEXT OF THE PROGRAMME

Quinvita, Novartis

FEEDBACK

Difficulties and/or obstacles encountered during the programme’s implementation:
In Papua, farmers only had machetes, which is not a tool adapted to cutting grass or to weeding a plot

Solutions used to overcome the difficulties and/or obstacles:
After discussions with farmers in Papua, simple tools required to cultivate Jatropha and reduce their labour inputs (plastic sheets to dry their seeds, whipper snippers to reduce weeding time) were distributed to farmers along with close monitoring of the organization of the farmer groups on how the tools should be shared and maintained.

Suggestions for future improvement:
N/C

Summary of factors responsible for the programme’s success:
- In such Jatropha projects, farmers are at the centre of the activity: they remain the sole decision makers on their plots, on whether to establish, maintain, harvest and ultimately sell the Jatropha grain
- The mass of grains produced by the farmers and purchased by the company
- By selling the Jatropha oil in the country where it is produced, Eco-Carbone maximizes its environmental benefit and contributes to lowering the country’s energy expenditures.

ADVICE FOR THE PROGRAMME’S SPREAD OR TRANSPOSITION TO ANOTHER SITE OR CONTEXT

- Jatropha does grow in a diversity of pedo-climatic conditions
- Farmers were willing to plant Jatropha only on land where they had a secure right
- Jatropha will provide a complementary income to the existing farming income. Farmers will be keen to invest their means of production at the pro rata of their expected returns
- To promote the inclusion of Jatropha in agroforestry systems (more adopted by farmers who seen many technical and financial advantages)
- To have a sufficient spread between the cost of oil at the pump and the opportunity cost of one man-day
- The project developer have to build with farmers a long-term relationship based on trust, mutual respect and a good understanding of their needs and problems in order to find adapted solutions
- To intercrop Jatropha with annual crops permitting farmers to maintain their plot and the fertilizer that is spread on the annual crops indirectly benefits the Jatropha. And to purchase the annual crop from the farmer to secure the short-term revenue
- Farmers are all the more motivated in getting involved in the production of Jatropha when they also consume themselves the end products such as oil or organic fertilizers.

BIBLIOGRAPHIC REFERENCES