GEF-IWCAM Project Experience Note # 3

TITLE

Agro-Forestry: Linking sustainable livelihoods to conservation at La Sabanita Farm

PROJECT TITLE

A model for integrated watershed and coastal area management (IWCAM) from Cuba.

PROJECT DESCRIPTION

Cuba, the largest island in the Caribbean chain, managed over the past forty years under a socialist development plan and government controlled economy, was chosen to demonstrate the application of an Integrated Water and Coastal Area Management (IWCAM) project. The area of study is the community of the Cienfuegos Bay, located in South Central Cuba. The political economy of Cuba, briefly described above, provides an important context for understanding the experiences of this project.

The project sought to provide an integrated approach to watershed and coastal areas management, and focused on seven specific interventions. These included (1) setting up of an instrument for the institutional collaboration and coordination of IWCAM at a national level; (2) water quality monitoring; (3) agro-forestry; (4) soil conservation; (5) domestic waste-water management; (6) the reuse of wastewater in sugar cane irrigation (e.g. harvest residues and organic waste); and (7) an education and public awareness programme.

Interventions three (3) and four (4) referenced above, were implemented through the establishment of demonstration pilot area(s) for implementing best forest practices including reforestation in mountains and river fringes, as well as for

1 This component on sugarcane wastewater was not realized due to unforeseen circumstances.
implementing best agricultural practices for increasing soil conservation, improving soil management, better management of wastes from agricultural practices, while reducing the impacts of agricultural chemicals within the Bay.

Ultimately, these interventions hoped to provide a better understanding of sustainable development among farming communities. The La Sabanita Farm was identified as one of the beneficiaries of this project.

DESCRIPTION OF ISSUES

In recent years, industrialization, the rise of urban centres and the expansion and introduction of various other activities have presented environmental problems in the Cienfuegos Bay as in many coastal cities both in Cuba and other developing states. The growth of poorly controlled agricultural development has been cited as a major contributor to increased pollution, soil erosion and decreased soil fertility in the Bay. In addition to these issues, deforestation on river fringes and coastal areas; increased levels of salinity and sedimentation in drinking and irrigation waters; and general threats to human health have become apparent.

La Sabanita agro-forestry farm project focused upon maintaining forest cover and on reforestation, while continuing to produce significant agricultural yields. Cuban counterparts provided these farmers with technical guidance and material support while testing out new and innovative techniques.

RESULTS AND LEARNING FROM EXPERIENCE

Project Results
The Sabanita Farm comprises 42 hectares, of which 8.2 is covered in natural forest. The project intervention enriched the forest with 11 hectares in Caribbean pine, eucalyptus and blue mahoe; and 10.8 hectares of commercial species including coffee, citrus and other fruits, plantains, bananas and other vegetables. 2.7 hectares was set aside for subsistence farming and includes beans, yucca, yams, sweet potatoes, corn and lettuce. The farm also has pig husbandry, for which the Cuban state provides 40% of the pigs’ feed. The pork (meat) produced, is sold in a guaranteed market back to the State. The State also provides basic support for the dwellings of the farmer. In the case of La Sabanita, it handed over domestic electronics such as television, cassette player, kitchen utensils, and working facilities. The State also supported the completion of the construction phase of the farmhouse including the installation of electricity, and provided domestic furnishings including a refrigerator and electric fans. These represent state-funded incentives for farmers to produce food and simultaneously protect the forest.
The farm produced 115 cans (13kg or 28.6lbs each can) of coffee in the first year of operations, which was sold to the local Cooperative. This represents only half of the full productive capacity of the farm. Goats produce milk and meat products, and the waste is used as fertilizer. Wild ornamental orchids, which abound the forests, will sell for 25 pesos each in Havana, the capital city.

The farmer’s personal story is also interesting and an experience worthy of note. He was a high school teacher prior to taking up farming duties on his farm. He earned approximately 225 pesos per month as a teacher. He now earns 428 pesos per month, not to mention a home, and a plot of land for food.

**Learning from experience:**

**Linking livelihoods to conservation**
The connection between improved livelihoods and conservation has been highlighted in this experience. The farmer was able to benefit from increased economic benefits whilst contributing to forest conservation, watershed protection and food production for local consumption. This combination of agro-forestry benefits is only achievable within the context of an understanding that conservation is more easily achieved when an integrated approach is adopted.

**State incentives**
The incentives regime provided by the state is a clear demonstration of a supportive policy framework that prioritizes conservation and food security. By linking the two objectives, the goal of watershed protection and sustainable livelihoods may be achieved.

**Entrepreneurial Opportunities**
Although the political economy of Cuba does not readily lend itself to entrepreneurial activity, at least not in the profit-driven sense as most capitalist economies do, the agro-forestry farms are entrepreneurial enterprises. They are managed by single families, who produce agricultural products for a market. The State guarantees sale of the farm products and the farmer in turn abides by certain forest management guidelines in return for consumer items.

**REPLICATION**
The conditions for replication of good practice or lessons learned are often dependent on the local conditions that facilitate this. Cuba is a centrally planned and controlled economy operating under socialist principles. It is against this background that the IWCAM project was implemented.

This economic and political organization of the Cuban state facilitated the incentives regime that supported La Sabanita farm. The deliberate policy that
provides significant incentives like homes and household equipment in exchange for forest management and the production of agriculture food items, is unparallelled in most small island and developing countries. First of all, the standard of living expectations of many islands states in the Caribbean are more sophisticated than that which existed at the Sabanita farm (particularly with respect to the technologies). Secondly, the income expectations are also significantly lower in the Cuban context. These realities make it more challenging for easy replication of an incentives regime in other dissimilar but more widespread island economies.

However, a policy of ensuring food security, and a guaranteed market for agricultural produce, could provide significant financial returns to any ten acre farm, for example, in a small island developing state in the Caribbean or South East Asia. It is no secret that the food import bill of most island developing states is astronomically high, not necessarily because of the inability to produce but because of issues related to free enterprise which contributes to the attraction to imported foods and eating habits. Agricultural links to the tourism industry are also poor and several efforts over the years to strengthen this have met with only marginal successes. There is very little government control or incentives to purchase locally, consequently farmers are not incentivized to produce agricultural produce for the local or tourism markets. If governments of SIDS could begin to develop incentive programmes that link forest management and agricultural production, the benefits could be more visible and justifiable, particularly where conservation is often perceived as a luxury, and job creation on a larger scale is a pressing need.

**SIGNIFICANCE**

The GEF–IWCAM approach is a strategy that incorporates watershed and coastal areas management in achieving improved overall watershed management objectives. The strategy covers coastal area management and biological diversity conservation; tourism development policy and planning; protection of water supplies; and land and marine-based sources of pollution.

This experience supports a strategy for conservation of biological diversity in forests and linking this to purchase of agricultural produce for the tourism market as a deliberate incentive. In this way, tourism development policy is linked to a domestic conservation and agricultural production strategy, and can be encouraged under the corporate social responsibility (CSR) banner, now being touted by an increasing number of large tourism enterprises.