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INITIATIVES CONDUCTED BY THE CNASEA CONCERNING LAND POLICY AND AGRICULTURAL DEVELOPMENT. THREE EXAMPLES IN MARTINIQUE

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ABSTRACT: The very sharp reduction in usable farm area in Martinique over the last 30 years has led the local authorities to begin wide-reaching discussions on land management and to become concerned with the development of farm structures and the development of agricultural and rural land resources. The complexity of the land issue in Martinique necessitated the establishment in March 2001 of a mission of the General Council of the GREF to conduct an inventory, identify the causes for these changes and to propose solutions. Due to the CNASEA's level of expertise, it was asked to become involved with 3 projects set up along these lines:

- SIGAM (Système d'information géographique agricole de la Martinique [Martinique Agricultural Geographic Information System]),
- Martinique Crop Observatory,
- Community studies for sustainable agricultural development.

INTRODUCTION

The Division of Agriculture and Forestry (DAF) of Martinique manages and controls the financial aid granted to the department's 2,000 farmers. Given the financial stakes, the European Commission and the French government authorities established a quality requirement. So, to obtain better knowledge of the changes in and the occupation of the department's space, to manage financial aid, to compensate farmers fairly in case of hurricanes or tropical storms, to evaluate the actions implemented locally and to determine future projections, the DAF wanted to have a dedicated GIS: the principle of a graphic declaration made every year by farmers on an orthophotographic background was selected. Each year, farmers receive an aerial photo of their farm on which they update the contours of their parcels and their speculations.

In 1999, the CNASEA was asked by the DAF to establish a mechanism and, since May 2001, the date on which the system became operational, it has assisted the different partners. The CNASEA is involved in the management procedure through the collection of agricultural declarations via the DAF and their integration in the information system. Relay Organizations (farmers groups) are involved to assist the farmers in filling out their declaration. At the end of the campaign, they receive data concerning their membership for conducting studies and improving the tracking of farm producers.

To successfully complete this project, the CNASEA revealed very strong constraints for managing concurrency (multi-station environment on an ArcView 3.x platform, exchanges among several sites, complex database), managing large print volumes (particularly with management of widths ways and optimization of print times) as well as the radiometric improvement of the images.

The SIGAM (Martinique Agricultural Geographic Information System) is based on a client-server concept where the geographic (shapefile) and alphanumeric (MySQL) data are

stored in the server. Indeed, the thematic organization of the data (an individual declaration for each annual campaign) and their volume (2,000 farmers – over 10,000 parcels) allow these storage means. To develop the SIGAM geographic functions, the modular structure and the interfaces, the languages Avenue, Delphi and C++ were used.

THE MARTINIQUE CROP LAND OBSERVATORY

The Martinique Crop Land Observatory was ordered from CNASEA by the Region Prefect in January 2003. Its purpose was to quickly give the municipalities a tool for gaining knowledge of their cropland to support their land policy, particularly with respect to combating the loss of farmland. Its implementation relies on the production of an ATLAS, updated and delivered annually, based on the graphic surface area declarations (SIGAM), a photo-interpretation, experts' opinions (technicians from the chamber of agriculture, municipal resource people) and verifications in the field. It required the mobilization of a project head (Corinne CONCY) and a cartographer (Béatrice PONS). It is 100% financed with public funds (DOCUP 2000-2006).

The ATLAS comprises 5 maps made up of 2,000 orthophotographs augmented by themes borrowed from the TOPO DB. They describe:

- The municipality (general presentation)
- The crop land farmed and declared
- The crop land farmed and not declared
- Wild land
- Total cropland.

The scale of representation is adapted to the shape of the municipalities while remaining under 1/30000th. The results for the year 2003 have already been delivered to the municipalities, to the local unions, to the professional organizations and to the partner agencies (research, Société d'Aménagement Foncier et d'Etablissement Rural – SAFER).

The perspectives offered by the ATLAS include the following:

1. At the municipal level:
 - Delimitation of Protected Agricultural Areas;
 - Implementation of the wild land reclamation procedure;
 - Launch of Grouped Land Planning Operations (OGAF) ;
 - Conduct of land studies for sustainable agricultural development (developed below) ;
 - Assistance with developing Local Urban Planning Programs (PLU) ;
 - Definition of targeted development and facilitation strategies for areas of the territory identified as pilot or priority areas.
2. On a larger scale:
 - Definition of development strategies and development prospects for agricultural land at the municipal community level and for remarkable areas (Irrigation Areas, for example) or for the department.
 - For a given production, the development of global tracking tools in concert with the cooperatives and the farmers groups.



CARIBBEAN FOOD CROPS SOCIETY

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An example of the application of SIGAM and ATLAS results: The municipal studies for sustainable agricultural development

In partnership with SAFER and the Chamber of Agriculture of Martinique, the CNASEA is conducting municipal studies for sustainable agricultural development. They are implemented at the request of the municipalities and are conducted over a 4- to 6-month period under the authority of the mayor who appoints a steering committee that validates the different phases of the study. They complete the trends identified by the ATLAS and rely on a territorial diagnosis aimed at identifying constraints and use conflicts by considering:

- ⇒ the physical environment (climate, natural risks, soil, natural heritage, natural areas to be preserved, infrastructure projects, POS/PLU, AOC areas),
- ⇒ the farms businesses, their operation and their growth, through surveys conducted by the Chamber of Agriculture
- ⇒ the land, its mobility and its owners.

Additionally, a mapping of the territorial stakes is proposed based on the superimposition of the information layers collected.

Following validation by the steering committee, the working group proposes a program of localized initiatives that will be based on the results of the diagnosis. The final report will also be accompanied by a mapping of the priority areas for agricultural maintenance proposed for the delimitation of Protected Agricultural Areas (ZAP).

In Martinique, two studies have been completed (Rivière Salée and Le Robert). In Rivière Salée, public surveys for the implementation of the ZAP and “Wild Land” procedures are underway. Another five studies are underway at Ducos, Saint Esprit, Sainte Anne, Vauclin, and Macouba. Three other studies will be launched by the end of 2004 in Sainte-Marie, Le Prêcheur, and Grand Rivière.

Other examples of CNASEA involvement in the Overseas Departments and Overseas Territories

We can cite:

- Implementation of OGAFs (Grouped Land Planning Operations), in Martinique (4), Guadeloupe, French Guiana and Reunion.
- Regularization of farm land in French Guiana
- Regularization of customary occupants in Mayotte ;
- Preliminary study for the “Priority Sugar Cane Areas in Reunion” study ;

The presentation documents for these initiatives may be obtained on request from the CNASEA – Regional Delegation of Martinique - Centre d’Affaire Californie 2 - Immeuble Synergie – 97232 Lamentin – Fort de France – Martinique - FWI.