MIS

CONSORTIUM FOR THE MANAGEMENT OF FRAGILE SOILS OF CENTRAL AMERICA

CIAT

WHAT IS MIS ABOUT?

MIS is an interinstitutional and multidisciplinary consortium devoted to the generation, adaptation and dissemination of technological options to improve management of fragile soils of the Central American region.

MIS participants seek to overcome water and nutrient management constraints through participatory approaches to identify environmental and socioecomic driving forces behind land use and develop solutions.

MIS BENEFICIARIES

Results of the consortium will benefit millions of small holders in hillsides and downstream users of Central America. Poverty of rural population enforces them to exacerbate resource degradation affecting soil and water quality and biodiversity.

CONSORTIUM FOR THE MANAGEMENT OF FRAGILE SOILS OF CENTRAL AMERICA

GOAL

To maintain or improve the natural resource base and preserve the biodiversity of natural ecosystems while increasing agricultural productivity of tropical soils

PURPOSE

Generate, Adapt and disseminate options for the sustainable management of fragile soils in Central America

OUTPUT 1	OUTPUT 2	OUTPUT 3
Information on practices and policies for improved SWNM collected and readily available for stakeholders	Production systems more productive and more efficient in the use of water and nutrients	Improved practices disseminated and adopted by small scale farmers
Activities: ● Characterize the fragile soils of the region as a function of socioeconomic and biophysics variables. ● Synthesize available information on soil, nutrient and water management within the target area of the consortium. ● Identify socioeconomic and policy factors that influences soil, water and nutrient use in the region. ● Facilitate exchange of information among the members of the consortium and other consortia. ● Establish formal contacts with other consortia and networks working in the region. ● Promote workshops to identify research gaps and opportunities for the consortium.	**Activities:** ● Develop improved management practices and indicators for the integrated management of fragile soils at several scales (farm, watershed, and landscape). ● Develop integrated crop/tree/pasture systems that are more productive and more efficient in the use of available nutrients. ● Determine the impact of traditional and improved systems on soil quality and water availability at the watershed scale. ● Generate and validate alternative sources of fertilization. ● Assess the impact of improved management systems on the environmental value of natural resources. ● Select reference sites for collaborative work at the watershed levels.	**Activities:** ● Develop and validate guidelines for the management of the improved systems and components developed by the consortium. ● Foster the participation of stakeholders in the development and dissemination of improved options. ● Establish monitoring systems to evaluate the adoption of technological innovations. ● Hold farmers field schools to assess the potential adoption of technologies developed by the consortium. ● Develop increased public awareness of the environmental trade-offs of production systems in fragile soils. ● Publish the results of the use of technological options developed by the consortium. ● Evaluate on scientific basis the value of current technology transfer methods to study adoption of improved practices on soil, water and nutrient management.

VALIDATION OF EXPERT SYSTEMS AND METHODOLOGIES DEVELOPED BY OTHER CONSORTIA

NuMass CRSP Consortium

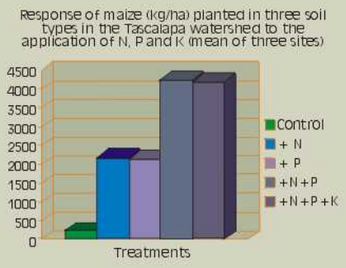
Researchers and extensionists from Honduras and Nicaragua initiated the validation of the expert system NuMass. The system generates recommendations for use of N, P and lime for cropping systems.

MSEC Consortium

CIAT, INTA and ESNACIFOR are working together to validate and improve the MSEC methodology for the economic evaluation of soil and water losses in farms of Nicaragua and Honduras.

TSBF Program

This methodology is allowing to identify the need of N, P and K to increase crops production.



PARTICIPATING INSTITUTIONS:

NARIS:

INTA: National Institute for Agricultural Technology, Nicaragua.
MAG-FOR: Ministry of Forestry and Agriculture, Nicaragua.
DICTA- Directory of Science and Technology, Honduras.

DEVELOPMENT PROJECTS

PASOLAC: Program for Sustainable Agriculture for the Hillsides of Central America.
FAO-Lempira Sur: Rural Development Project, Honduras.
ADDAC- Association for Research and Development, Nicaragua.

UNIVERSITIES

University of Bayreuth, Germany
CATIE- Tropical Agriculture Research and Higher Education Center, Costa Rica.
ZAMORANO- Panamerican Agriculture School, Honduras
UNA- Agrarian National University, Nicaragua
CURLA- University for the Atlantic Region, Honduras.
ESNACIFOR- National School of Forestry, Honduras.
North Carolina State University, Soil Science Department. Raleigh, USA.
USDA-ARS – Jornada Experimental Range

CGIAR CENTERS:

CIAT: International Center for Tropical Agriculture.

Other SWNM Consortia

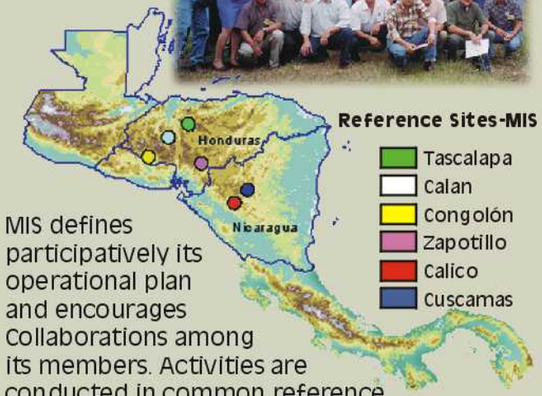
MSEC - Managing Soil Erosion Consortium
TSBF – Tropical Soil Biology and Fertility Program

Contact:
Miguel Angel Ayarza
Executive Secretariat
CIAT-Honduras
P.O.Box 1410,
Colonia Palmira, Ed. Palmira, 2do. Piso.
Phone:(504)2321862, 2391431
Fax. (504)2391443

E-mail: mis_1@mail.flashmail.com
Web-page: http://www.123.hn/ciathill

OPERATIONAL FRAMEWORK OF THE CONSORTIUM

Eighteen institution from Honduras and Nicaragua participate as active members of the consortium. This consortium is supported by The SWNM System Wide Program convened by CIAT.

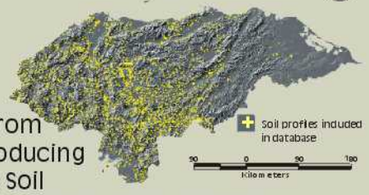


MIS defines participatively its operational plan and encourages Collaborations among its members. Activities are conducted in common reference sites with participation of farmers.

MIS members elect an Executive Committee that is responsible for the reviewing and approval of collaborative proposals and for the technical and financial report to the SWNM Program.

RESEARCH ACTIVITIES CARRIED OUT BY MEMBERS OF THE CONSORTIUM

Decision Support Systems



CIAT and NARIS From Honduras are producing a georeferenced soil database For the country. This will allow stakeholders to make informed decisions about NRM using edaphic information.

Impact of improved agroforestry systems

FAO and CIAT are assessing soil improvement and environmental services provided by the Quesungual agroforestry system (C sequestration, water quality and biodiversity).

Hydrologic behavior of watersheds

Students from Zamorano, ESNACIFOR, UNA and CIAT are incorporating the use of hydrologic models to study the hydrologic behavior of watersheds in reference sites.

Soil and water quality indicators

Member of MIS are identifying and testing soil and water quality indicators integrating local and technical knowledge.