

IMPACT ASSESSMENT SERIES

The Way to Go: Conserving and Managing Natural Resources

Impact Assessment of the Sustainable Agriculture and
Natural Resources Management Collaborative
Research Support Program in Lantapan, Bukidnon

For the scientists and researchers of Sustainable Agriculture and Natural Resources Management Collaborative Research Support Program (SANREM CRSP), the search for suitable and effective sustainable agriculture and natural resource management practices in areas threatened by environmental degradation is a major challenge.

SANREM CRSP is a research, network and training program undertaken by a consortium of US-based universities in partnership with individuals, community groups, universities, NGOs and government agencies in Africa, Asia, and Latin America. PCARRD coordinated the SANREM program in the Philippines that was implemented in Lantapan, Bukidnon from 1993 to 2003.

The Manupali watershed in Lantapan, being open to environmental pressures posed by increase in demand for residential and agricultural lands, became the object of the SANREM project. Banana and sugar cane plantations have invaded the mid to high elevations of the watershed endangering its environmental resources with forest degradation, losses of biodiversity, and soil and riverbank erosion.

Faced with these alarming threats, SANREM, together with PCARRD, the Municipal Government of Lantapan, and other collaborators, packaged an innovative research and development program that focused on helping farmers, local organizations, community leaders, and local government officials make

better decisions to effectively manage and conserve the Manupali watershed.

SANREM, with the assistance of these agencies, and other individuals, conducted a participatory landscape appraisal and organized rural institutions for protection and maintenance of the watershed. The groups organized for the purpose included the Agroforestry Seed Association of Lantapan, Kitanglad Guard Volunteers, Bantay Lasang/Forest Rangers, and Tigbantay Wahig which is a community-based water watch group.

Impact Assessment

The impact assessment of the SANREM project which was funded by PCARRD and conducted by the University of Southeastern Philippines was completed in 2010. The assessment generated encouraging results. For one, environmental degradation caused by the expansion of agri-industrial crops in the area was mitigated. Soil erosion of riverbanks was also reduced and the water remained in good quality.

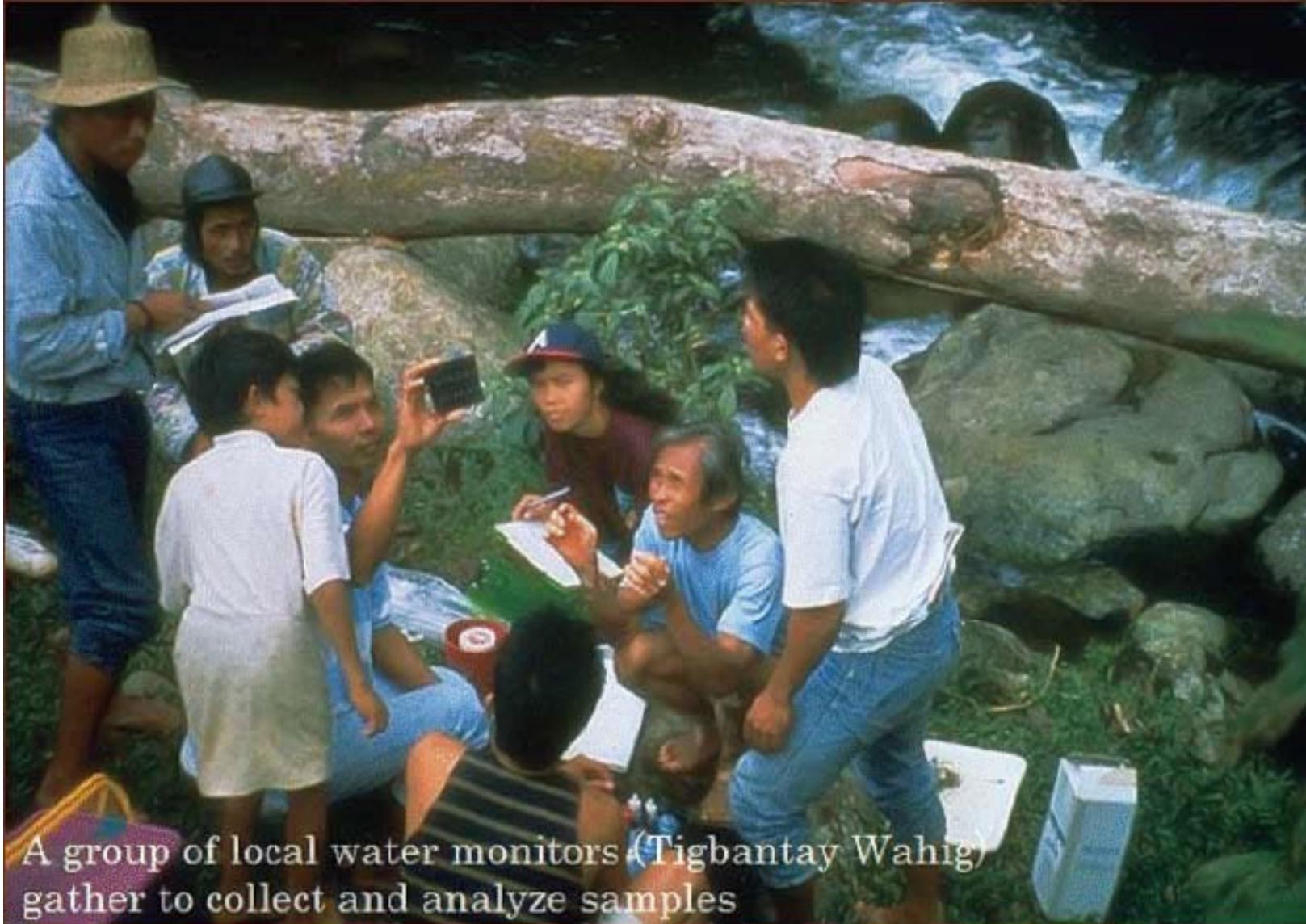
Results also showed that the prevailing conditions in the watershed that were looked into by the assessment team were no different from neighboring areas in Lantapan with no SANREM intervention. These conditions included earthworm casts, incidence of soil erosion, soil fertility, and soil water holding capacity, depth of rivers/streams, flooding incidence, riparian vegetation, river flow, sedimentation/ deposition, siltation and the level of water table in the SANREM areas.

The Natural Resource Management and Development Plan (NRMDP) of Lantapan that was formulated through SANREM, with its valuable inputs in formulating watershed management strategies, became a model for local initiative on environmental management to other towns in the Philippines.

The Department of Environment and Natural Resources (DENR) recognized the Lantapan experience as the national model for resource management planning in the country.

The Local Government of Lantapan enacted and implemented several local environment-related ordinances to protect the natural resources of Manupali Watershed. These ordinances governed garbage disposal, livestock concentration and movement across the watershed, transport of potatoes, and adoption of contour farming on sloping lands.





Overall, there was minimal change in areas covered by primary and secondary growth forest in the Manupali Watershed. Areas planted with trees and shrubs increased by 26%.

Change in land cover (in ha), Manupali watershed.

	1994	2001	% Change
Secondary Growth	4,435	4,332	(2.3)
Primary Growth	3,675	3,443	(6.3)
Trees and Shrubs	5,433	6,871	26.47

The program also produced a significant body of knowledge on natural resources conservation and management out of the many researches and policy analyses conducted by its local and foreign scientists and researchers.

The program was able to beef up local capacities from various training conducted for the local government units, farmers and other stakeholders.

It strengthened partnerships with community-based groups and institutions as the stakeholders were brought together in trainings, fora, and various meetings and workshops for information sharing on environmental protection and management.

The program's success can be attributed to the application of holistic approach involving all stakeholders in the planning process down to the implementation of the projects identified--a fine example of interagency coordination working towards a common goal.

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