

Ecuador- Pedro Moncayo

"Reforestation and Management of the Mojanda Micro Valleys"

SUMMARY

Pedro Moncayo and Otavalo Micro-watershed reforestation fund, to protect Lake Mojanda (in the caldera of the extinct Fuya Fuya volcano, shared by the two municipalities). Municipal initiative set up three programmes: declaring the status of the forest (above 3600m) as service provider; organizing the Consortium of Water Boards and pooling water charges into a Fund for the protection of the micro-watersheds in the area.

MATURITY OF THE INITIATIVE

Ongoing since 1998

DRIVER

Interest arose following deforestation of the slopes around the lake Mojanda (caused by forest fires, crop burning, the advance of agriculture) leading to loss of the water channels draining these slopes. At the same time, the water level of the Lake has been dropping (5 metres in the last 10 years) and there are concerns about future water availability.

STAKEHOLDERS

Supply

Land in the micro-valleys within the slopes of Mojanda (private and communal).

Demand

Municipal Company for Drinking Water and Waste Treatment and irrigation users.

Intermediary

Consortium of water boards.

Facilitators

Foundation Brethren y Unida and Swiss Ecuadorian Counterpart Fund (Swiss Federal Office of Education and Science (FOES)).

MARKET DESIGN

Service

No clear reference but likely to be water quantity (given the fall in water levels of the lake) and reduction of soil erosion on the slopes in the micro-valleys draining into the lake.

Commodity

Reforestation for commercial plantations using native species (carried out as a community group-work activity - "*mingas*").

Improved management practices including agroforestry.

Payment mechanism

Intermediary-based transaction (local government): creation of a Fund for the Protection and Reforestation of Micro-watersheds administered by the municipality, to design a management plan for the protected forest, to extend the reforestation effort, to support gamekeepers and to continue the environmental education.

Terms of payment

In-kind: participants can access forest and fruit tree saplings to plant in the higher slopes of the Cerro Mojanda. Unclear if there is any further incentive after the plantation phase, particularly in private lands (reforestation is done both in communal and private lands).

Funds involved

i) municipal decree that assigns to the Fund, part of the water use fees already being charged (the fees are to be progressively augmented); ii) Willingness to Pay to pay studies found that users would be willing to pay a minimum rate of 20 cents; current fees (4US\$ cents per 15m³) are highly subsidized (40-50% is covered by the municipality) and need to be increased ten fold to cover the operation and maintenance costs alone. iii) The fund to fulfil its goals, will need an input of US\$ 1,100/month; for the moment half of this amount has been secured (US\$450 from water use fees and US\$200 from the water boards) and further voluntary contributions from other users are also expected. (Cuellar and López, 2002)

ANALYSIS OF COSTS AND BENEFITS

Economic

No information available.

Environmental

The Mojanda Mountain was declared a Protected Area (municipal decrees declared the status of the forest -above 3600m- as service provider) and that has prevented the expansion of the agricultural frontier up to these *paramo* lands. Cattle grazing is still a problem.

Perceptions of land-water linkages: "When we organize group reforestation activities, more than 200 people show up, our only problem is providing transportation for everybody. They are aware that they are not going to plant trees, but to 'sow' water" for the area." (Ecuador Virtual website, 2005)

Social

Due to the formation of the water board consortium, participation of social groups in the management of the water resource is easier and this is likely to produce a more equitable distribution.

LEGISLATION ISSUES

i) The institutional processes brought on by this project accelerated the formation of the Drinking Water Boards consortium and led to the creation of the Municipal Drinking Water and Waste Treatment Company (2001). This is now the body responsible for the management and administration of water resources in the entire district and has representation from the local government authorities, the rural communities and urban neighbourhoods.

ii) The consortium's next steps are expected to be: (a) to coordinate with the Municipality and the Municipal utility company to ensure the good quality of the service; (b) to improve administration within the water boards, in particular the determination of tariffs; (c) to contribute to the design of the Fund; and (d) to create a reserve fund to invest in the maintenance of the infrastructure system.

MONITORING

Unclear.

MAIN CONSTRAINTS

No information available.

MAIN POLICY LESSONS

Multiplier effects of the PES: "In the course of action new figures became involved: the Minister for Education and Culture, the colleges of Pedro Moncayo and Cayambe, and other non-governmental organizations (NGOs). This has generated improved coordination between local institutions with the formation of the Inter-institutional Committee to tackle other subjects, like health, education, youth and the environment." (Brethren y Unida Foundation website)

OTHER INFORMATION



CONTACTS

At Ecuadorian Agroecology General Coordinator: Juan Carlos Romero (CEA) / José Rivadeneira (MAELA Ecuador)
Email: cea@andinanet.net

REFERENCES

Brethren y Unida Foundation website. Pedro Moncayo- Local management of natural resources.
http://www.fbu.com.ec/pedro_mon.htm

Cuellar, J. C. and López A. 2002. *Workshop: Los Servicios Ambientales en el país, con énfasis en el recurso agua*. Contribution for the 2nd week of the forum on Rural Municipalities and participatory local management in mountain areas. May 29th - July 5th – 2002. CONDENSAN. Peru.
<http://www.condesan.org/e-foros/Municipios2002/JCuellar-ALopez.htm>

Ecuador Virtual website "*La laguna de Mojanda se está secando*", Ecología (El Comercio) - 1/4/2005
<http://ecuadorvirtual.com/article.asp?qid=1225&sid=Ecolog%C3%ADa>

Reinoso, M. M. (ed.) 2001. Agua y Comunidad, tejiendo consensos. Sistematización del Proyecto Doblamiento Forestal y Manejo de Microcuencas en el cantón Pedro Moncayo. Municipio de Pedro Moncayo-FOES-Fundacion Brethren y Unida

LINKS

Brethren y Unida Foundation website: www.fbu.com.ec

www.maela-net.org

www.agrecolandes.org