Colombia- Valle del Cauca

Valle del Cauca - land acquisition and land management contracts

SUMMARY

Ongoing since the 1980s, this scheme has engaged irrigation users associations in contributing to watershed management through a voluntary fee payable jointly with water use tariffs, hoping to secure a regular water supply for their activities.

Acronyms: *CAR:* Regional Autonomous Corporation*; CVC*: Regional Autonomous Corporation of the Cauca River Valley (CVC);

MATURITY OF THE INITIATIVE

Ongoing since 1980s, when the first water users associations were created.

DRIVER

Water scarcity in dry seasons and sedimentation. The initiative was led by large-scale agricultural water users (responsible for 86% of water use in the lower valley) who began funding the actual implementation of sub watershed management plans put forward by the CVC, the regional environmental authority, who lacked the resources to invest in implementation.

According to Echavarria (2002) the funds collected through the water use fees are "distributed among the different CVC programs so they are not enough to go beyond the payment of personnel". It is within this context that the voluntary agriculture water users associations have arisen. Initially, associations were purchasing land in upper watershed areas identified as vulnerable to erosion. This brought about problems related to expelling people from their land, and so later they turned to drawing up watershed management plans.

The scheme was set up jointly by the regional environmental department (CVC) and the users associations.

In Colombia, all urban, industrial and agricultural users (surface or groundwater) pay a water user fee, based on the amount assigned. In watersheds where water is scarce (15 of the 41 sub-watersheds in Cauca), current water fees are higher, reaching US$ 3.5 litre/second (Blanco, 2006). However, only large scale agricultural users pay, “since CVC does not provide water use permits to small scale producers due to the logistical cost of overseeing such a system" Echavarria (2002).

STAKEHOLDERS

Supply

Private landowners in the upper catchments of the sub watershed within the valley of the river Cauca. In the Bolo River Basin, for example, providers include some indigenous communities and small-scale private landholders (Kosoy et al, 2005).

Demand

Members of fifteen irrigation water users associations downstream. Together, they cover 600,000ha and group 3,825 users (who represent 90% of the demand in their watersheds). Blanco (2006)

Intermediary

The CVC collects the environmental charge together with water use tariffs from downstream water users and transfers it to the respective water user associations to carry out conservation activities in their part of the watershed.

Facilitators

Creation of the water associations was facilitated by Corpocuencas, a local NGO that provides support to public and private institutions engaged in sustainable development of the hydrographical basins of the Cauca Valley.

MARKET DESIGN

Service

Water flow regulation: to increase flow levels and stabilize water discharges during the rainy season.

Commodity

Improved Management Practices: erosion control, agro-ecological and organic productive systems.

Conservation and protection of existing ecosystems, though land acquisition in critical areas (14,000ha) such as around springs and fencing to prevent grazing in vulnerable areas

Reforestation for commercial plantations for reestablishment of forest cover with native species (mainly in degraded forests)

Payment mechanism

intermediary-based transaction (water users associations), pooled transaction user fees-
Members of water users associations contribute to watershed protection by paying an extra fee for that purpose. This fee is collected together with the water use fees by the CVC, who then transfers it back to the associations. The board of each association is responsible for managing funds and allocating payments to the upstream landowners and other management programmes. Management projects may be either proposed by the upstream communities or by the user association.

One of the user associations is the Bolo River Underground and Surface Water Users Association (ASOBOLO). They collect voluntary contributions from 167 members (users) and direct them to one group upstream integrated by 190 members (providers). Funds are used for watershed protection and rural development.

Terms of payment

From users: voluntary fee payable every three months to the CVC, together with the water use fee. The amount varies according to the agreement reached by each association. For example, members of the Asurnima association contribute with US$ 1.2 litre/second, while the members of Asoamaime pay US $3.4 l/s.

To providers: cash or in-kind *contributions to management programmes. The associations also provide* revolving funds*, from which providers can get loans to cover management improvements in their land.*

Funds involved

So far, the associations have collected about US$ 4.8 million. Blanco (2006)

ANALYSIS OF COSTS AND BENEFITS

Economic

No estimates have been made of the value of benefits received, but they are assumed to exceed the costs, otherwise users would refuse to pay. Payments for improved land management determined by providers' willingness to participate.

Environmental

Although this scheme has been ongoing now for 40 years, and the CVC has the mandate to keep regular hydrological records, the impacts of the scheme have not been evaluated formally. Empirical

evidence suggests that dry season water flow has increased in recent years but this may not necessarily be linked with the intervention:

> "In the case of the Desbaratado River, it has been observed that between 1988 and 1998, the river did not present the extreme flooding incidents that had occurred previously. (...) In the Nima and Amaime watersheds that feed Palmira's drinking water system, the springs have been isolated and protected and measurements taken indicate increased water flows during the dry seasons (Tenorio, 2001). In the Guabas River, where land was bought and protected in the upper watershed, an improvement in flow has been seen during the dry season (Tenorio, 2001). However, without concrete figures, it is difficult to assess the actual hydrological impacts of the interventions to date." (Echavarria, 2002).

So far, the activities sponsored by the scheme include (after Blanco, 2006):

- *Land purchase (14,000ha);*
- *Reforestation of 5000ha and the creation of nurseries*
- *Implementation of programmes of sustainable (and also organic) agriculture*
- *Water quality protection through waste management (biodigestors)*
- *Implementation of measures to ensure maintenance of ecological flows when building water distribution infrastructure*
- *Environmental education and training in improved agricultural practices*

Social

Creation of users association represents a valuable investment in social capital that may be used for cooperation in other areas. Activities promoted include community training in income-producing activities.

LEGISLATION ISSUES

MONITORING

The associations do not monitor the conditions of the watersheds and water availability. (Blanco, 2006)

MAIN CONSTRAINTS

Economic instability in Colombia in general, and in the Cauca valley in particular may be contributing to reduced membership of the associations and a consequent drop in funds collected. A recent increase in the water use fees charged by the CVC, might also have contributed to the reduction of the contributions for watershed management. And, whereas prior to 2005, participating users received a 25% discount in their water bills, as an incentive to support the work of the associations, this has been deemed illegal by the CVC new administration. (Blanco, 2006)

MAIN POLICY LESSONS

i) Creation of users association represents a valuable investment in social capital that may be used for cooperation in other areas. The CVC also invests in community training in income-producing activities

ii) The scheme is implemented in a poor rural area so benefits poor people. There are presently 15 associations of water users, and benefits approximately 97,000 families.

iii) Public-private partnerships such as this can be an effective way to leverage results since the government authority has a wide base of support and input. Echavarria (2002)

iv) In order to increase engagement in the PES, Echavarria (2002) highlights the need to improve social conditions first, as "it is difficult, if not impossible, to involve unmotivated

and needy communities. Environmental goals cannot be met without community involvement."

v) Blanco (2006) highlights the following enabling characteristics of this scheme:

a. Ability to pay: The users are relatively wealthy and have ability to pay (mainly large-scale cattle ranching, sugar cane and coffee producers)

b. Visible environmental problem and support for possible solution: Water use is high in the lower part the Valle del Cauca and therefore users are more sensitive to the risk of scarcity and need for appropriate environmental management

c. Existence of suitable intermediary: The fact that the CVC already collected water use fees, made it easier to set up a scheme for the collection of the new environmental management fee

d. Credibility of the proponents: Asocaña, one of the first associations to be involved, is highly respected and influential in the region, and in Colombia in general.

OTHER INFORMATION

In Echavarria,M. (2002) there is detailed information on how this system operates at the watershed level, using the example of the ASODES association and their activities in the watershed of the River Desbaratado.

CONTACT

http://www.cvc.gov.co

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LINKS

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