



Improving Bolivian Water Management: Incentives to Promote Sustainable Watershed Management that Improves Rural Livelihoods

Donor: DFID and International Institute for Environment and Development (IIED)

Project Summary

In 2004 Natura led a multi-institutional diagnostic analysis that assessed the potential for using market mechanisms to enhance watershed management and improve Bolivian livelihoods. While there is a clear need for a new way of thinking for managing water resources, there is strong opposition to the concept of market mechanisms. However, case studies showed opportunities for developing market mechanisms for watershed management: small-scale, locally managed projects can be feasible regardless of their political, legal and institutional context. In 2005, with continued funding from the International Institute for Environment and Development (IIED), we are developing further research and actions focusing on the following themes:

- 1) Assessing laws and national policies, and mapping the institutional landscape
- 2) Detailing the state of hydrological science in Bolivia
- 3) Reviewing poverty, land use and livelihood issues including the role of property rights in constraining and promoting market development and improved livelihoods
- 4) Assessing watershed management experiences, both of existing markets and other mechanisms such as integrated watershed management
- 5) Assessing the feasibility of selected study sites for the development of market based management mechanisms
- 6) Undertaking stakeholder and actor analyses in the selected watersheds

Project Description

There is a clear need for a new way of thinking for managing Bolivian water resources. Despite numerous attempts at integrated watershed management, there have been few successes. Projects have invariably focused on increasing or managing supply through construction of dams and other infrastructure, and have rarely focused on improving efficiency or managing demand. At the national level, management has usually been through top down laws and regulations, few of which have succeeded. Although Bolivia is one of the countries with the most water per capita in the world, and demand is ~ 1% of supply, localized water scarcity continues to breed conflicts. Irrigated agriculture accounts for 80% of Bolivia's water demand, yet irrigators pay low water tariffs, often less than 1% of what the peri-urban poor pay.



The concept of using market mechanisms for watershed management is innovative. Much of the fear around the subject is based on the Cochabamba water war and the concept of privatization. Case studies show there are clear opportunities for developing market mechanisms for watershed management: small-scale projects can be feasible regardless of political, legal and institutional winds. If the price is right; if the concept has been socialized; and landowners are comfortable with the idea; even theoretically insuperable problems, such as lack of government-approved tenure—can be overcome.

Some conditions are necessary before even beginning such projects: a good diagnostic and local knowledge is critical; local government must be convinced of the project's value; and the project must be locally "owned", signifying that socialization is invaluable. In many ways, small, localized projects can "fly under the radar" and not be concerned with national cultural or institutional issues. While this is a strength of such projects, it is also their fundamental weakness: they are unlikely to influence government policies

For large-scale projects, there is far greater potential for success at leveraging laws, but also greater likelihood of difficulties. Large-scale interventions thus require far more work at the national scale. Institutions, cultures, laws, education, and ways of thinking must be changed before market mechanisms for watershed management could begin to systematically improve Bolivian livelihoods. But this is how such initiatives can have a fundamental impact on policy: helping institutions leverage change at a national level.



In 2004 Natura led a multi institutional diagnostic analysis that showed there is great potential for promoting market mechanisms for watershed management that improve rural livelihoods in Bolivia. In 2005, funded by the International Institute for Environment and Development, the project team will develop the research and actions that are necessary to further guide the process. Our work will focus on the following themes:



- 1) Assessing laws and national policies, and mapping the institutional landscape
- 2) Detailing the state of hydrological science in Bolivia
- 3) Reviewing poverty, land use and livelihood issues including the role of property rights in constraining and promoting market development and improved livelihoods
- 4) Assessing watershed management experiences, both of existing markets and other mechanisms such as integrated watershed management
- 5) Assessing the feasibility of selected study sites for project development
- 6) Undertaking stakeholder and actor analyses at the watershed level.