ANDEAN PROPOSALS

CGIAR Challenge Program on WATER & FOOD

1.

The instruments that we propose for the equitable distribution of environmental benefits in Andean watersheds are mechanisms based on dialogue and social consensus and not just on the payment of environmental services.

2.

As a starting point for the discussion and consensus, investment in scientific research and monitoring is fundamental as they allow us to have clear diagnoses of the intervention zone and proposals that may generate tangible benefits for the stakeholders in watersheds.

Agreements for watershed wellbeing

Benefit Sharing Mechanisms

Water management

Water is fundamental for food, production, transportation and health, but also for the integrity of ecosystems. For this reason, the application of modern concepts for its proper management allows us to care for the functions that it has for society and for the conservation of ecosystems; management with a holistic vision that combines cultural, environmental and social elements.

Environmental Services?

Environmental Services (or Ecosystem Services) are benefits that people obtain from ecosystems. For example, we receive clean water if we have a good vegetation cover in areas of the watershed where it rains most.

Hydrological Environmental Services are water related services that society receives from ecosystems, like in the previous example. They include the regulation of the hydrological cycle, high water yields, the maintenance of water quality and the recharge of aquifers.

The circle of wellbeing

The correct handling of environmental services allows good environmental management which results in human wellbeing.

Human beings that enjoy a state of wellbeing, have a greater capacity to realize good environmental management, ensuring therefore the provision of these services through a virtuous circle between human beings and the ecosystems they inhabit.

However, there exist various difficulties in achieving good environmental management. In the case of water, those who benefit from its use often live in a different area from those who take care of the ecosystems where it is generated.

For this reason, a question has been posed to connect these human groups: How can we make the people who benefit from hydrological services (for example, those who consume water in the city or those who use irrigation water for agricultural production) contribute to the wellbeing of those who guarantee its generation and conservation (such as communities whose territories include Andean forests, paramos and puna)?

Benefit Sharing Mechanisms

Based on this question, we thought about ways of building cooperative relationships through sustainable and efficient benefit sharing mechanisms, which are: processes of collective action that seek to guarantee the satisfaction of collective and individual interests without prejudicing the basic resources, the quality of life and the wellbeing of the population and the actors involved in the watershed.

In the Andean region, some of these are being implemented. The one which has received most attention in recent years is compensation through a payment (in cash or kind) to the people taking care of ecosystems, for the service generated. Nevertheless, there exist other mechanisms, such as water funds, and participatory conservation budgets, among others.

Challenges of benefit sharing mechanisms

Use of available knowledge

One of the recurring problems for the implementation of benefit sharing mechanisms is the low level of involvement and exchange between academic and practical knowledge, which weakens both.

Despite the existence of a relatively broad base of knowledge about hydrology in the Andes, the relationship between the promoted activities and the provision of environmental services is based on assumptions.

"Human beings that enjoy a state of wellbeing, have a greater capacity to realize good environmental management"

Even though in some cases the assumptions are logical and valid, in others they are not (for example, some

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Andean ecosystems and hydrological services

Andean ecosystems, especially mountains with snow and ice, punas, páramos, wetlands and forests, provide multiple hydrological services to society.

Despite the widely recognized importance of Andean ecosystems for society, human activity that negatively affects them is on the rise. Productive activities, such as agriculture, rearing of livestock, industrial forestry and mining are significantly altering the hydrological behavior of natural ecosystems (Buytaert et al., 2006) and therefore their capacity to generate hydrological services.

Great efforts have been made to conserve ecosystems through control mechanisms and diverse projects. However, these have not achieved the desired results, principally due to the need to implement projects being greater than the capacity of governments and environmental organizations.

afforestation activities have a negative effect on the hydrology of Andean ecosystems).

Another problem is the lack of adequate baseline (the hydrological state before a project is begun) and a monitoring program that allows the identification of a complementary benefit of the measure.

Policy and regulatory framework

Another challenge around the implementation of benefit sharing mechanisms is the establishment of a political and regulatory framework.

It is a reality that various successful cases have been implemented despite there is not legislation or a regulatory agency for these types of mechanisms.

"Is not necessary a large amount of legislation. But absence of a minimum regulatory framework can generate legal uncertainty"

This has demonstrated that it is not necessary to have a large amount of legislation. Nevertheless, it is true that the absence of a minimum regulatory framework can generate legal uncertainty (regarding "property rights" and "user rights", among others) and an insufficient consideration of issues of equity and efficiency (known as sharing costs and benefits).

Towards a solution

The required policies of knowledge should focus on transparency, precaution and monitoring.

Transparency entails democratization of information; the opening up and dissemination of knowledge in different spaces, especially among the least favored groups directly related with the benefit sharing mechanisms.

Precaution implies ensuring that decisions are not taken without a sufficient base of knowledge about eventual impacts.

Monitoring entails ensuring that actions whose impacts are not previously known are accompanied by a process of measuring their impacts and the disposition for applying an adaptive management of the action. Good governance of information should be promoted, including clarifying who should produce this information and who should disseminate it.

Action. Collective processes of dialogue need to be initiated and maintained, in which there is an interchange of findings and experiences, enriching the knowledge of the different actors.

A policy framework around the benefit sharing mechanisms should not solely focus on environmental services per se, but also on their source: the ecosystems. The advantages of having a general legal framework are that they reduce the administrative costs of transaction, facilitate the integration of compatibility between policies, making more effective the application of policies across sectors regarding the use of hydrological services.

Finally, the instruments that should be promoted have to be directed towards the redistribution of the benefits (benefit sharing mechanisms), because if a policy does not promote equity, it will not be sustainable.

Additional Information

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Links

- Initiative for Hydrological Monitoring of Andean Ecosystems (MHEA) • https://sites.google.com/site/iniciativaregionalmhea
- Challenge Program on Water & Food (CPWF) • www.waterandfood.org
- Katoomba group • www.ecosystemmarketplace.org
- InfoAndina • www.infoandina.org

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