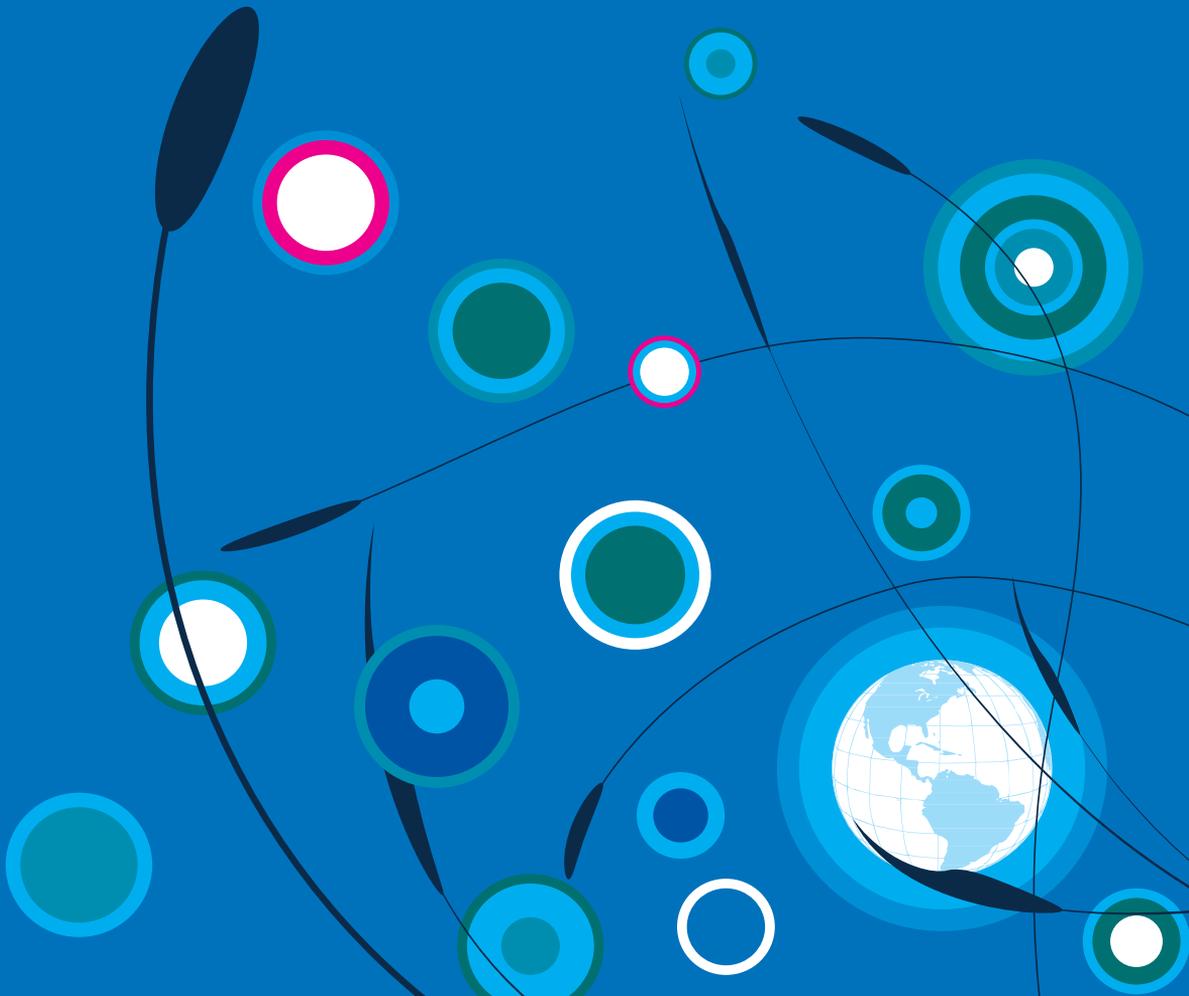


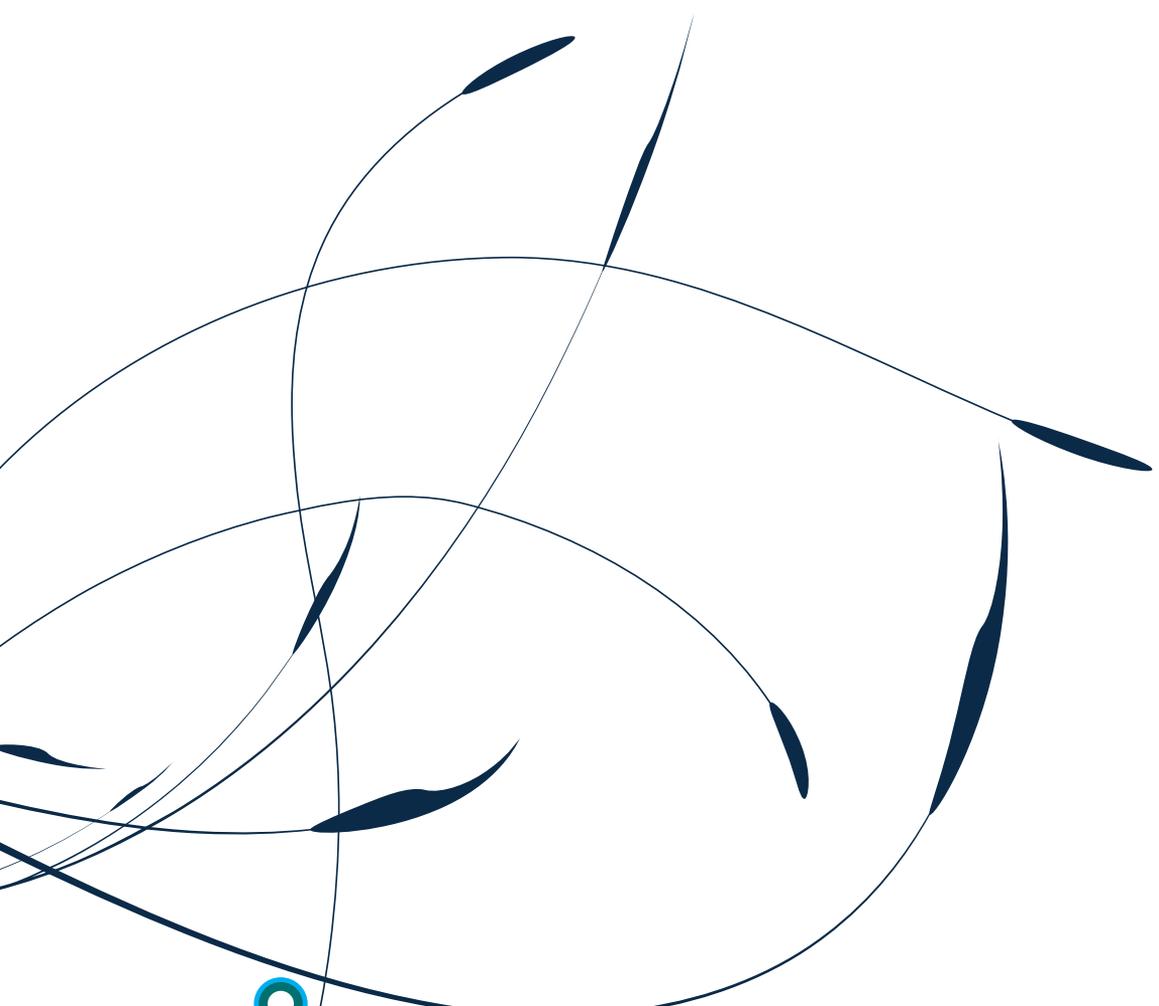
LIVING WATERS

What commitment is needed from institutions in the era of climate change?

SUPPORT MANUAL

for an adaptive resolution to Environmental Conflicts





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How to use this manual:

This manual has been developed specifically for communities that are facing environmental conflicts related to water, which is one of the most fundamental resources for life.

What you will find in this manual are reflections on the vulnerabilities of communities to impacts of climate change and environmental conflicts. You will also find a strong emphasis on the importance of the participation of all stakeholders in the resolution of these conflicts. To illustrate this, we present three cases of conflict related to water: the Oldman River Dam, in Canada, the Puclaro Dam in the Valle del Elqui, and the Pascua Lama mining

project in the Valle del Huasco in Chile. At the end of sections 1.2, 1.4, 2.2, 3.3, 4.4 and 4.5, we present activities developed with the objective of guiding discussions concerning these conflicts.

In the final section of the manual, we present a practical guide for communities to design and implement an Adaptive Resolution of Environmental Conflicts. An “adaptive” resolution of the conflicts that communities face will have a direct impact on their quality of life, in the broadest sense possible, which will help minimize their vulnerability to water-related climate change impacts.

Introduction

The rapid growth of the world's population, the interdependence of the global economy and the rise in consumerism have increased the demand for natural resources all over the world. But at the same time, the supply of these resources is becoming scarcer. Suddenly, some resources that are

essential for the subsistence and reproduction of a community have become scarce.

Numerous studies are forecasting that the increased shortage of natural resources, primarily due to environmental factors such as global warming will result in increased tensions and conflicts.ⁱ

As the access to these natural resources becomes increasingly threatened, the resources cease to be sources of stability and continuity; instead, they become sources of conflict.



1.2

Context: Global Warming

For quite a few years now, the phenomenon of global warming has become the center of public debates: at international conferences and discussions, and in the newspapers and other means of mass communication.

Today, the scientific evidence of the severity of this phenomenon is irrefutable. Global warming has begun to have dramatic effects on the daily lives of millions of people through changes in the wa-

ter cycle in different parts of the globe. As a result, we get the impression that the environment itself is crying out and demanding a change in the way we live.

The changes in the hydrological cycle as a result of climate change include the rate of snowmelt, dramatic changes in rainfall patterns throughout the planet, increased evapo-transpiration (water transfer from the land surface to the atmosphere through evaporation and



transpiration), which in many regions result in drier summers or more frequent and intense typhoons, floods and mudslides. At the same time, there is an increased competition over the scarce water supply from agriculture, industry and municipalities.ⁱⁱ

Drastic changes in climate are altering nature's course, generating severe impacts on the quantity and quality of water.



Activities

Next, we encourage you to answer and discuss with others the following questions:

1. What information about climate change do you have access to?
2. Over the past few years, have you noticed changes in climate in the region where you live (increase or decrease in temperature, droughts, changes in the frequency of rain, etc)?
3. Have you noticed a radical change in availability of natural resources such as water?
4. If you have noticed these changes, how have they affected your life? The quality of life of others in your community? In which ways?

1.3

Adaptation to Climate Change

With the objective of minimizing the impacts of global warming, numerous governments throughout the world have adopted various initiatives that have as their primary objective the reduction of the vulnerability of communities.

In 1997, the majority of the world's industrialized nations signed the Kyoto protocol, which is one of the most important commitments to reduce the emission of greenhouse gases. Unfortunately, some of the main emitters of these gases, namely the United States and China, have refused to sign the agreement.

However, it has been recognized that strategies to reduce greenhouse gases are not sufficient to confront the current and potential effects of climate change; a set of adaptive measures are also required. These adaptive measures include the development of the capacity of organizations and human communities to adjust their activities and behavior in order to avoid, mitigate, or take

advantage of, the effects of a changing climate. The undertaking of these adaptation strategies is crucial for communities that are most exposed to the risks associated with climate change.ⁱⁱⁱ





Vulnerability in the Face of Climate Change

Climate change affects the lives and livelihoods of communities. These impacts occur at multiple levels.

The degree of vulnerability of human and biological communities to climate change impacts is directly related to the level of response by these communities to the adverse effects.^{iv}

The communities most vulnerable to the effects of climate change are those most exposed and with the least capacity to respond adequately to major disturbances. An example of a community with a limited capacity to adapt is one that historically has had limited access to vital natural resources, such as water.

The more exposed a community is to major disturbances, the more vulnerable it is.^v

On the other hand, communities that have a better capacity to adapt because they have access to information, use of technology, influence over political decisions concerning their use and access to natural resources, tend to be far less vulnerable.

Why are these communities less vulnerable? Because they are capable of generating different strategies of adaptation to the effects of climate change. This adaptive capacity should be created and achieved collectively by the communities.

Those communities with the least access to resources, information, technology and political influence are the most vulnerable to the negative effects of climate change.



Activities

1. We invite you to reflect on the situation in your community with respect to each of the following:

- Access to information about the effects of climate change and the use of and access to natural resources.
- Access and use of technology.
- Influence in political decisions regarding the use of and access to natural resources such as water.
- Previous experiences in the community with situations involving droughts, typhoons, floods and earthquakes.

2. What actions can contribute to the betterment of your community's access to information, technology, and increased political influence.

Environmental Conflicts

We have observed that global warming radically alters the availability and quality of water by changing the hydrological cycle. The scarcity of a natural resource generates disputes over its control, access and how it is utilized and cared for.

But an environmental conflict can erupt due to various reasons; it is not limited to just the scarcity of resources. For example, it can emerge when members of a community demand the right to participate in the decision-making process concerning

the management of their water resource, and this right is not respected. In other instances, a conflict may emerge when there is a failure to reach an agreement on the allocation of water. In this case, the conflict emerges because the community feels that the regimes for water access and allocation are unjust.

On the other hand, a conflict can be latent and erupt suddenly; and under certain circumstances, it can explode in violence.



2.2

The Cultural Character of Environmental Conflicts

When an environmental conflict erupts over water, different social sectors can be involved.

One of the prime characteristics of these conflicts is that they reflect—in the majority of cases—a clash between different views of the world.

For example, in the midst of a conflict, there may be a clash between the traditional values of a local culture and community, pertaining to their relationship with the land and the water, on one side, and

the values associated with the exploitation of resources for monetary gain, imposed modernization and the agendas of foreign corporations, on the other.

Therefore, every conflict concerning natural resources has a cultural dimension. Each of the affected parties possesses a set of values (which is to say that it assigns greater importance to certain things that others may take for granted) which must be acknowledged in order to understand each party's view of their community and place.

For a conflict to be successfully resolved, it is imperative to develop an understanding of the values, interests and worldviews held by each of the parties involved.^{vii}



Activities

1. In recent years, has your community or neighbouring community faced environmental conflicts? Conflicts concerning water? If so, what was the catalyst?
2. If you answered in the affirmative, which world-views were clashing in the midst of the conflict? Can you describe the worldview of the different parties involved in the conflict?

We invite you to think about water:

3. What does water represent for you?
4. Are you familiar with any stories, legends or special significances associated with water?

Case 1:

The conflict surrounding the Oldman River dam ^{viii}

The Oldman River in Alberta, Canada, is an essential water source for the Piikani nation, various municipalities and many farmers who depend on the irrigation of their lands for their survival.

Historically, the Oldman River has been a poor source of steady water supply for the various communities in the basin. The uncertainty over the Oldman river as a source of water supply was a critical issue for all of the inhabitants of the surrounding region.

At the end of the 1970s, consecutive years of drought began to threaten the stability of the agricultural operations in the region, as well as the water supply for all of the local communities. As a result, irrigation farmers lobbied the Alberta government to build an on-stream reservoir on the Oldman River.

The Alberta government's plan to build the reservoir triggered a decade of conflict between the various stakeholders in the basin, including displaced farmers, neighbouring municipalities, the Piikani Nation and environmental groups.

Each group had a radically different perspective on the conflict. Farmers, who

were displaced by the construction of the dam, organized themselves into the Committee for the Preservation of the Old Man River to oppose the project. Some members of the Piikani Nation were also opposed and were outraged arguing that the Nation had not been properly consulted or considered during the planning phase of the project, despite their treaty right to have a say in the fate of the river that runs through their community. Environmental groups also opposed the project arguing that it would affect the biodiversity in the basin (the variety of plant and animal life). The government of Alberta, for its part, did not stop its plans to construct the dam because its priority was to find a steady supply of water for irrigation

After years of conflict, during which various cases reached the courts and divisions were created between the displaced and irrigating farmers and between members of the Piikani Nation itself, an Environmental Assessment Review Panel found that the dam had various social and cultural consequences for the Piikani.

In summing up their findings, the Panel produced a list of 22 recommendations, including the decommissioning of the dam, because the social, economic and

environmental costs of the project far outweighed its benefits. In addition, the recommendations placed great emphasis on the implementation of programs to monitor the impacts of the dam on the affected areas and on finding a resolution to the pending issues between the Alberta government and the Piikani Nation. Therefore, the Panel recommended that the Alberta government negotiate a settlement agreement and assess the environmental impacts of the dam on the territory of the Piikani.

Canada's federal government rejected the recommendation of the Panel to decommission the dam arguing that the operations of the dam could be made

environmentally acceptable without the need to shut down the dam.

Finally, after more than a decade of conflict, in 1992, Alberta's Ministry of the Environment officially inaugurated the Oldman River dam. Although the Oldman reservoir allows the storage of water to counter the effects of drought, and therefore has enhanced irrigation security in the area, echoes of the conflict remain in the region.

Regarding the resolution of the conflict as it pertains to the Piikani, in 2001, an agreement was struck between the governments of Alberta, Canada and the Piikani Nation on the compensation for the impacts of the dam on their territory.

Activities

The conflict surrounding the Oldman River dam offers some very valuable lessons. We can see that one of the main aspects inherent in an environmental conflict is the divergent worldviews held by the parties involved and the importance of the timely and genuine participation of the affected communities in the decision-making process.

1. Which different parties do you see involved in the conflict surrounding the Oldman River dam?
2. Can you describe the differences in how they view and relate to water?
3. When you think about your own community, what are some of the differences that you see between how different parties view and relate to water?

Environmental Governance

It has been established that an environmental conflict results from the tensions over the access, control, use and management of a natural resource -such as water- as much as it is a clash between fundamentally different views of the world.

But these conflicts do not occur in a vacuum given that there are forces (laws, agreements and politics) which regulate the use of the resource. Better stated, they occur within a certain governance system.

Environmental governance is, at its most fundamental characteristic, the manner in which each community manages and utilizes the mechanisms, politics and social agreements which regulate the use and access to the natural resources that provide them with the means for their subsistence. In this process a series of government institutions, businesses and non-governmental organizations intervene to establish regulations, legal frameworks and agreements which directly affect the daily life of the communities.

In recent years, a basic agreement has been reached over what constitutes en-

vironmental governance: a system which respects the biological and ecological integrity and preservation of natural resources for the long term. While at the same time, it is also beneficial for businesses, corporations and industries related to agriculture, mining and other activities that directly influence the lives of community members. It also contributes positively to the quality of life of the population and to the social and economic development of local communities, regions and countries.

In order to achieve environmental governance, it is fundamental that all of the interested parties get involved in the process of defining the politics, frameworks, agreements and regulations, because their participation can constitute a guarantee for an effective dialogue between the different viewpoints involved, thus preventing their own marginalization and exclusion. The effective representation and meaningful participation of all the stakeholders provide greater legitimacy and validity to the agreed upon strategies for the management of the resources.

Environmental governance is or is not sustainable depending—to a significant extent—on the process of participation and engagement of the different interested parties involved.

3.2

The Importance of Participation in Conflict Resolution

The power differences between the parties involved in environmental conflicts can increase a community's vulnerability to climate change.

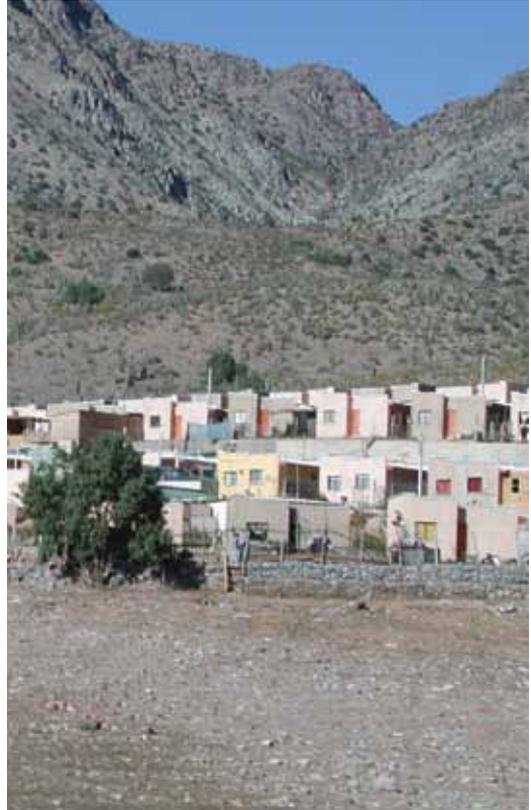
Studies in different parts of the world have demonstrated that meaningful participation of a broad spectrum of interested parties in the resolution of environmental conflicts, as much as a genuine effort on the part of institutions to understand the interests and values as they relate to natural resources, can:

- Increase the adaptive capacity of communities facing climate change, and
- Reduce their level of vulnerability.

With a greater legitimacy of the decision-making process in environmental governance, communities are more open to develop and adopt strategies and measures for resolving conflicts that result from climate change impacts.

The kind of environmental governance as well as the manner in which an environmental conflict is managed and resolved can determine the extent to which communities are vulnerable to climate change.

The greater the participation of a community in an environmental conflict, and the more transparent the process of participation, the less vulnerable that community can be.



3.3

The Role of Institutions in the Resolution of Environmental Conflicts

We have argued that there is a relationship between the manner in which environmental conflicts are managed and resolved (specifically regarding water) and the resulting vulnerability of communities to climate change.

But what role do institutions play in this process?

When we speak of institutions, we are referring to different types of organizations, both formal and informal, who play a critical role in how decisions are made concerning the use of and access to natural resources.

What institutions do or fail to do can determine how vulnerable a community is to climate change. Institutions can influence the development of adaptation strategies to climate change, especially when they count with the resources and power to make decisions.

The role that institutions play during environmental conflicts and particularly in conflicts over water—is largely determined by elements such as:

- The approach taken by the institutions when faced with conflict
- The institutions' understanding of their own role in managing and resolving the conflict
- The institutions' ability and willingness to understand the experiences of the affected communities,
- The effectiveness of the strategies to cope with current and future impacts of climate change
- The institution's access to economic resources, infrastructure, access to information and technology.

On the other hand, the adaptive capacity of the institutions is largely determined by:

- Their ability to share and make accessible their resources (be that information, financial, technological or human),
- The quality of their knowledge and understanding concerning the problems faced by the communities (for example: their comprehension of how

The vulnerability of communities to climate change is related to the role that formal and informal institutions play in situations of conflict

phenomena associated with climate change affect present-day scenarios),

- The ability to be forthcoming in their responses to community concerns,
- Their flexibility and willingness to learn from current conditions as well as past experiences,
- The networks that link them to civil society,
- Their leadership; which is to say, their capacity to mobilize and convene members of the communities.

In summary, institutions play a role in the sustainability (durability in the long-term) of diverse systems of environmental governance, but especially in water governance.

The greater the legitimacy and validity of the institutions involved, the more trusting, accepting and willing to participate in the development of strategies for managing scarce resources will be the affected communities.



Activities

1. Do you have information on the regulations for the use of and access to water in your community?
2. Have strategies of adaptation to climate change been developed in your community?
3. If the answer to the above question (2) is yes, did your community play an active role in developing them? How?
4. Can you identify which institutions in your community play an active role in determining how water is used?
5. What role have they played in past or present conflicts concerning the use of and access to water?

Case 2:

The conflict concerning the Puclaro reservoir^{ix}

The Elqui River is located in Chile's northern Coquimbo region, an arid region best characterized by its scarce and irregular precipitations.

In 1995, the Ministry of Public Works developed a plan to construct a dam on the Elqui River, later more commonly referred to as the Puclaro reservoir. The project's main objective was the regulation of the river's waters for the purpose of alleviating the scarcity of water in the region. Because the project involved the flooding of 800 hectares of land, five communities consisting of 250 families and almost 1000 residents had to be relocated.

The construction of the dam was not subjected to an Environmental Impact Assessment because at that time there were no regulations established in the Chilean legal system for that purpose.

Even though for over 40 years the construction of a dam had been demanded by both small and larger-scale farmers, its design, location and construction caused much outrage and resistance from the local communities. Their imminent displacement represented a massive blow to their local economy and a threat to their traditional ways of life.

For the proprietors of lands earmarked for agro-industrial exploitation—who would

have benefitted directly from the dam's construction—the greater control and availability of water meant greater production opportunities, as well as an incentive for new investments and technological transformations in the valley of the Elqui river.

For the soon to be displaced communities, on the other hand, this project would have a negative impact on their traditional ways of life, which was based on subsistence farming and with free access to water.

Although all of the affected local communities were opposed to the dam, their leaders did not establish clear or stable mechanisms of negotiation with the authorities for reaching adequate solutions. In fact, most of the communities had a weak internal cohesion before the negotiations, low organizational capacity, limited access to information and no direct connection with influential individuals and institutions, which were key determining factors for their degree of vulnerability. However, those communities that had a strong leadership and access to information well in advance, were able to develop mechanisms of negotiation and obtained better conditions at their relocated sites than most of the other communities.

Currently, the water impounded in the Puclaro reservoir is primarily used for agricultural purposes and to regulate the water



flow in the basin to counter the irregularity of rain in the region.

However, the “benefits” of the more predictable and available water did not translate into more equity in the region. On the contrary, the proprietors of monocultures with high economic productivity have been the primary beneficiaries.

On the other hand, the more impoverished communities, those with less access to land and water were the victims of the most negative effects of the relocation. They suffered uprooting from their ancestral territories and productive lands, and were relocated on hillsides without adequate access to water for irrigation or land for cultivation. Moreover, their social capital—their ability to mutually aid one

another, their internal solidarity and their ability to act in defense of their own interests—was especially undermined and compromised.

Activities

1. After learning about the Puclaro Dam, what lesson can be obtained from this experience? What are some of the learnings?
2. What is your opinion of the role that the institutions (including social organizations) had in this conflict?
3. Could there had been better agreements achieved? If yes, which ones?

Resolution of Conflicts

It is not only the participation of all the affected parties that is absolutely essential, even more important is the nature of their participation.

Just as there are different varieties of environmental conflicts, there are also different types of resolutions to these conflicts.

Historically, the majority of environmental conflicts that have not been successfully mediated and negotiated have been resolved primarily through the legal system and through the courts.

Under this model—based on verdicts delivered by the courts—a type of environmental conflict resolution based on winners and losers is perpetuated. This model excludes the possibility of developing a community-based environmental governance model sustained by social agreements which can benefit equally everyone involved.

In the past two decades, however, alternative methods of conflict resolution have emerged. These alternative methods place a far greater emphasis on developing

equitable representation and participation in mediation and negotiation, which allows for a new approach to resolving environmental conflicts.

These methods have emerged as a result of the fact that environmental conflicts often threaten the political and democratic stability of a region. This instability results from the failure to take into account the various view points, values and reverence for the land and the water by those who attempt to mediate, manage and resolve conflicts. Among inhabitants of the Andean regions, for example, water is considered sacred and access to it is seen as a basic right for all. For them, it is both inconceivable and unacceptable that water be turned into a commodity that is bought and sold in “water markets”. Their particular view and valuation of water underpins their approach to environmental governance.



4.2

A New Ethic in Conflict Resolution

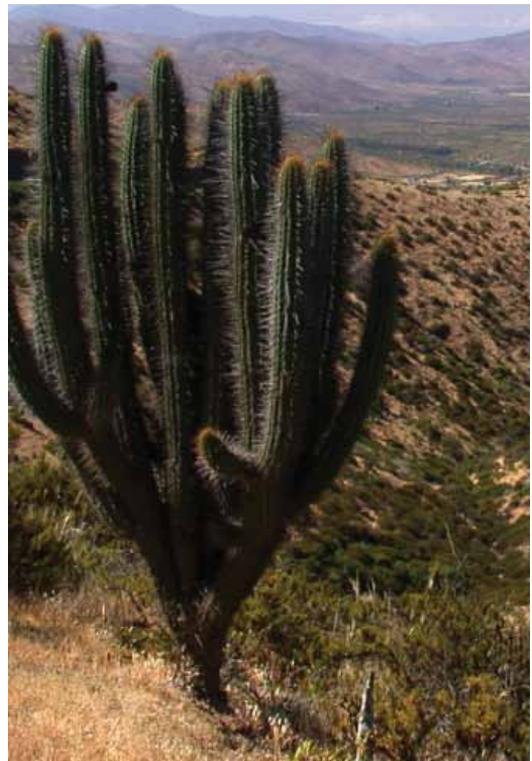
Studies have shown that in the cases where conflicts have not been resolved, the mechanisms for reconciling the differences in values and worldviews among the various parties involved have been weak and ineffective.

Conflict resolutions that are capable of creating a new understanding among the actors involved—and thus enhancing their adaptive capacity—can be achieved only when these actors' distinct worldviews are recognized, respected and treated as a fundamental component of the very nature of the conflict.

Despite the tensions and clashes of interests and values, a respectful and creative dialogue among all those involved in an environmental conflict is possible. However, for this dialogue to happen it is imperative that in all formal negotiations everyone be included.

There are challenges inherent in this type of dialogue, but facing these challenges can pave the way towards conflict resolution processes that lead to the adaptive changes needed by the affected communities and the institutions involved. In other words, if the conflict is managed in light of an inclu-

sionary ethic, lessons can be learned which can lead to new solutions and adaptation strategies for both the impacted communities and institutions involved.



A new ethic for mediation and resolution of environmental conflicts must consider, reflect and include the voices and interests of all parties involved.

4.3

Adaptive Resolution of Environmental Conflicts

In summary, a conflict can be channeled in a manner that is constructive for the communities involved, but for this to happen it is imperative that its resolution recognizes and deals with:

- The vast differences in power and influence between the parties involved;
- The different worldviews held by the different parties: indigenous communities, social organizations, environmentalists, farmers, industries and governments.

An “Adaptive Resolution of Environmental Conflicts” is achieved when these recognitions are considered during the process of resolution of an environmental conflict.

Encouraging public participation, making information easily accessible and creating conditions that encourage open dialogue promote democratic resolutions of environmental conflicts.

In Practice, Adaptive Resolution of Environmental Conflicts (or for simplicity Adaptive Conflict Resolution, ACR) creates new opportunities for dialogue, with a strong focus on:

- The creation of conditions that foster the narrowing of power differences
- The creation of a common vision among the different parties involved, as the basic prerequisite for a just and democratic resolution.

How can this be done? This challenge is at the heart of every resolution process to an environmental conflict.



4.4

Principles of the Adaptive Resolution to Environmental Conflicts



We propose the following eight principles, which as a set constitute an Adaptive Conflicts Resolution (ACR). Recent studies have demonstrated that when these principles are put into practice, they generate solutions that are broadly accepted and agreed upon, improve the adaptive capacity of the affected communities and reduce their vulnerability, as well as improve the adaptive

capacity of institutions of environmental governance.

Therefore, if the institutions that participate in environmental governance honor these principles and use them to guide their approach during processes of conflict resolution, ACR can legitimize the entire decision making process and advance the sustainability of the institutions.



PRINCIPLES

1. Open, transparent, convenient and equitable access to information.

All of the parties involved have the right and the responsibility to access and make accessible the most comprehensive information possible concerning the projects being proposed so that well-informed decisions can be made by all.

2. Symmetry of power relations during negotiations.

The characteristics of a process of negotiation are of great importance for its success. Every party involved in a conflict must have the opportunity to express and communicate to others the main problem that affects them. Scenarios and methods of negotiations which permit and encourage all of the parties involved to express and explain their interests and concerns must be fostered and encouraged.

3. Recognition and respect for different sets of values and perspectives.

When different values and perspectives are honored and respected during the resolution of a conflict, it promotes an authentic dialogue among the parties. Thus, it is guaranteed that each party can at the very least understand the points of view of the other parties involved in the conflict. The creativity that can be ignited under these conditions can contribute greatly towards the attainment of agreements on solutions that could not even be conceived as possible during the initial stage of the conflict.

4. Preserving the integrity of the ecosystem and restoring biodiversity.

The quality of the soil and water and the native flora and fauna which are being affected by a project should be preserved or restored. Measures for protecting the



biodiversity in areas affected by a project should be designed and implemented. If the biodiversity has already been affected, these measures need to address its restoration or possible reparation.

5. Strengthening the social networks of involved communities.

The social networks of a community, as much as their sense and feeling of belonging and internal solidarity must be protected and strengthened during the course of the resolution of a conflict.

6. Strengthening the technological capacities of businesses and institutions to assist in their adaptation to climate change.

The capacity of private businesses and public institutions to create technological and organizational adaptations to ecological, economic and social changes must be strengthened

7. Improvement of negotiation skills and creation of social organizations.

The capacity of social organizations to advocate, negotiate and propose creative solutions must be stimulated and at the end of a conflict significantly improved.

8. Strengthening the democratic, moral and technical authority of the state.

The authority and legitimacy of the democratic organs of the state need to be reinforced by maximizing their moral authority and minimizing their repressive and coercive fear-based authority.

Case 3:

○ The conflict surrounding the Pascua Lama mining project.^x

In 2000 the Pascua Lama mining project was proposed in Chile by Barrick Gold Corporation, one of the largest mining corporations in the world. This project consisted of open pit mining for gold, silver and copper at the headwaters of the Rio Huasco basin, located in the Andes Mountains.

Despite that since 1977 many studies concerning the project had been undertaken in the region, the official Environmental Impact Assessment (EIA) was not released until 2000. The release of the EIA ignited a conflict between the corporation and the local communities. The communities became aware of the risks to the entire valley surrounding the Huasco and were outraged. According to the communities, open pit mining would seriously affect the glaciers, and because it was located at the headwater of the basin it would pose great risks to the water supply and negatively affect the ecosystems, agriculture—of which the entire local economy was dependent—and the quality of life of the people. Many were fearful of the contamination of the water and the spilling of harmful substances during the transport of the extracted resources across the roads stretching through the valley.

In 2001 the Regional Environmental Commission (COREMA) approved the

project. However, Barrick Gold decided to postpone the project until 2004, when a modified and revised version of the project would be presented. The revised project basically consisted of a more intense and rapid extraction of the minerals. The revised project provided the catalyst for the coalition of diverse groups opposed to the project: the Congress for the Defense of the Valle del Huasco, the Christian Community of Our Lady Carmen Parish, the Diaguita Agricultural Community of Huasco, and the Río Huasco Basin Vigilance Coalition and Affiliates, among others.

At the end of 2004, the various organizations opposed to the project extended their fight beyond the region with the intention of gaining national and international attention to the Pascua Lama conflict. The preservation of the glaciers and the contamination of the waters were the main issues brought to light by the project's opponents. Committees formed to support the communities of the valley. Mass protests were staged at the national level and the struggle was covered en masse by the media. During the presidential elections all of the prospective candidates addressed the threat the project posed to the glaciers. Faced with the strength of the project's

opponents, Barrick decided to intensify and broaden their public relations campaign. Their campaign stressed “Barrick, responsible mining” as the main message in print and electronic media aimed at the local residents and the regional and national audience.

The Río Huasco Vigilance Coalition and Affiliates—one of the most influential opposition groups in the Valle del Huasco—whose members included defenders of the water in the valley and whose directorate was made up of some of the largest farmers in the region—was the main funder of the opposition groups. However, in June of 2005, when Chile’s environmental institutions were in the process of evaluating the project, the Vigilance Coalition signed an agreement with Barrick Gold. Barrick Gold committed to pay US \$60 million as “compensation for any negative impacts,” to build a reservoir at the headwaters of the basin and to fund the necessary studies for assessing the project. The Vigilance Coalition, in turn committed to “stop opposing the approval and implementation of the project.” This agreement provoked outrage among the other opposition groups in Pascua Lama. They felt that one of the movement’s most powerful and influential organizations, with the most politi-

cal and economic power, had sold them out. The agreement undermined the strength of the movement, and although the other groups felt disillusioned they refused to negotiate with Barrick Gold.

In February of 2006, the Chilean environmental authorities approved the project on the condition that the mining operations would not disturb the glaciers of Toro 1, Toro 2 and Esperanza. Despite the approval, the opposition groups have continued to mistrust Barrick Gold, the environmental institutions and the local authorities because they believe that there are not enough conditions to guarantee that during the implementation of the project the glaciers would not be damaged and the rivers not contaminated.

Activities

1. What impact did mass popular participation have on the Pascua Lama mining project?
2. Why do you think the struggle gained so much attention from the mass media (television, newspapers, radio)?
3. What role does public opinion play in the resolution of environmental conflicts?



4.5

A Guide to the Adaptive Resolution of Environmental Conflicts (ACR)

How do the principles discussed in the previous sections look in practice? What role can they play in the conflict resolution process—such as those concerning water—and in the evaluation of a conflict? How can we know if the resolution of a conflict leads to effective means of adaptation, and does it diminish the levels of

vulnerability faced by the impacted communities?

During a conflict a series of questions can be asked which can help to clarify which steps to follow as well as identify the particular dynamics of each situation.

		
PRINCIPLES <i>the set of ideas and goals upon which resolutions to environmental conflicts can be based.</i>	CRITERIA <i>guidelines that guide each principle.</i>	QUESTIONS (EXAMPLES)
Transparent, accessible and equitable means of seeking out information	The right to be informed.	What pertinent information do the affected communities possess? Is the information widely available and accessible?
Balancing power inequities during the process of negotiation	The right to participate in negotiations.	During the conflict resolution process, has there been a conscious effort to correct the power imbalances which exist among the different parties involved? Have there been any instances of dialogue during the course of the conflict where an effort has been made to acknowledge the different worldviews involved?



Recognition and respect for different values and world views

Tolerance and appreciation for diversity.

Which different interests, worldviews and parties are clashing?

Are there shared visions of the sustainable management of the natural resources in question?

Honoring the integrity of the ecosystem and working to correct the negative effects on the biodiversity

Protecting the integrity of the ecosystem and biodiversity.

Has the biodiversity in the region been impacted?

Have any measures been designed to assure the health of the soil, quality of water, and native flora and fauna which are being impacted by the project? What can be done to preserve or restore them?

Strengthening the social networks of involved communities

Protection of local cultures.

What level of trust do the involved parties have in the established institutions of environmental governance?

How is the level of communication between the different parties involved (organizations, public institutions, grassroots movements)? Have any alliances been built, or joint actions been taken?

Strengthening the technological capacities of businesses and institutions to assist in their adaptation to climate change

Adoption of technology to assist in long-term sustainability.

Have new technologies been developed to better adapt to climate change?

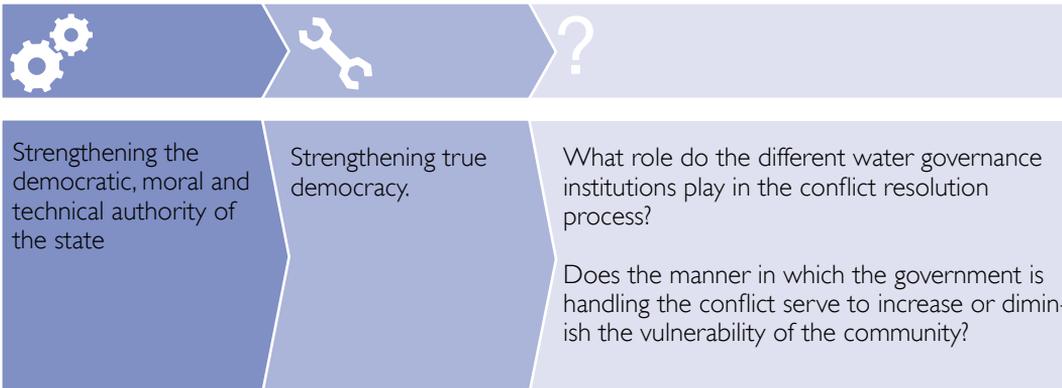
Improvement of negotiation skills and creation of social organizations.

Build strong community organizations.

Has there been popular participation in the process of dialogue?

From the perspectives of the different parties involved, has the resolution of the conflict honoured their interests?

Have the organizations improved their capacity to develop adaptive strategies?

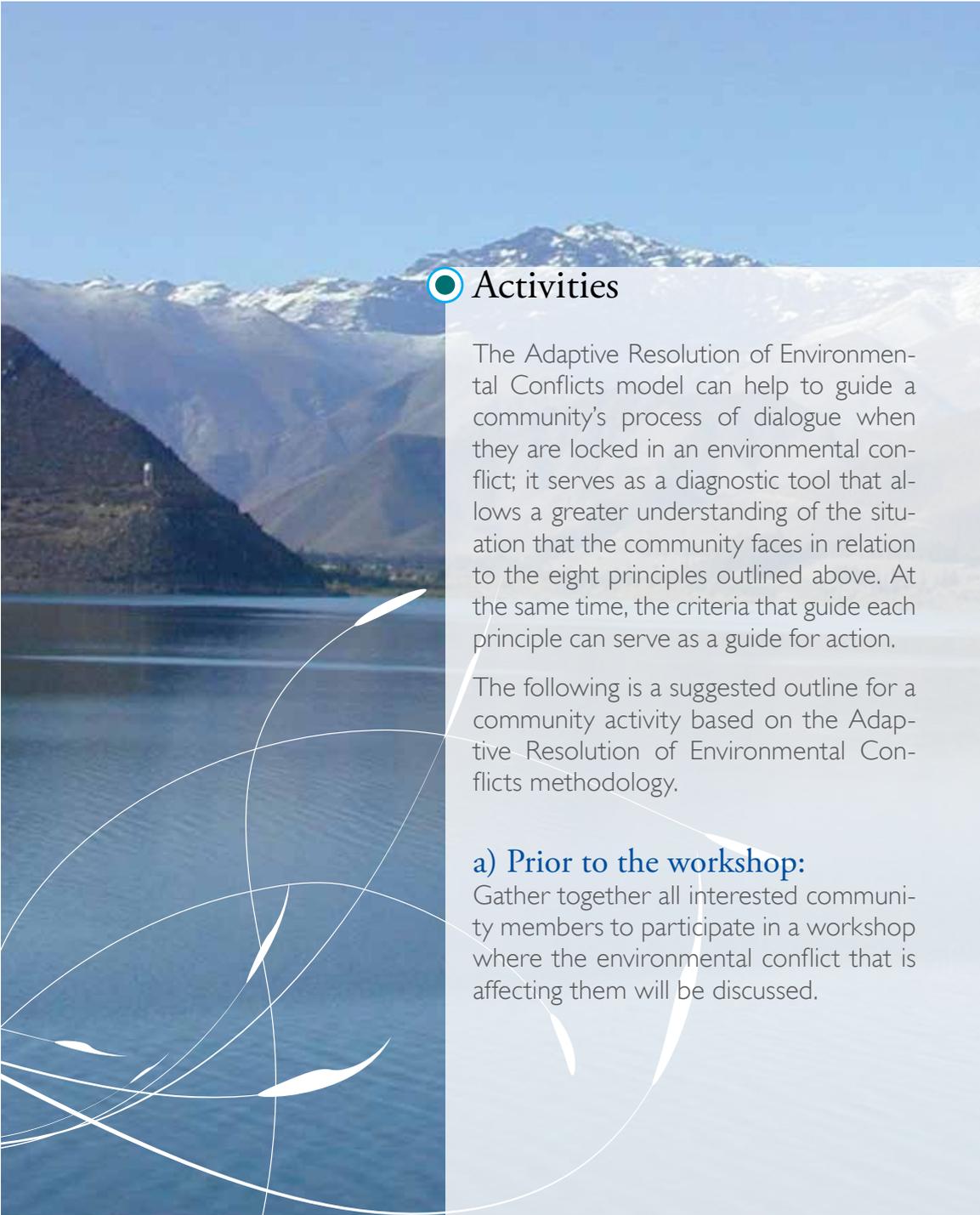


Based on this model, even the most explosive conflicts can be redirected in a constructive manner, and the impacted communities can grow stronger.

The most important point to consider is that valuable lessons can be learned from every environmental conflict. These lessons can contribute to the creation of a new social and cultural reality, to the

strengthening of the quality of democratic life and of social networks of support. This way, environmental values will not be abandoned for short-sighted visions fixated solely on short-term gain, thus helping to advance a greater understanding of the multiple functions of ecosystems, and the need for their preservation and restoration to ensure sustainable development for the long term.

Constructive social dialogue can lead towards developing a decision-making process which is sustainable in the long term, as long as all involved parties are willing to participate.



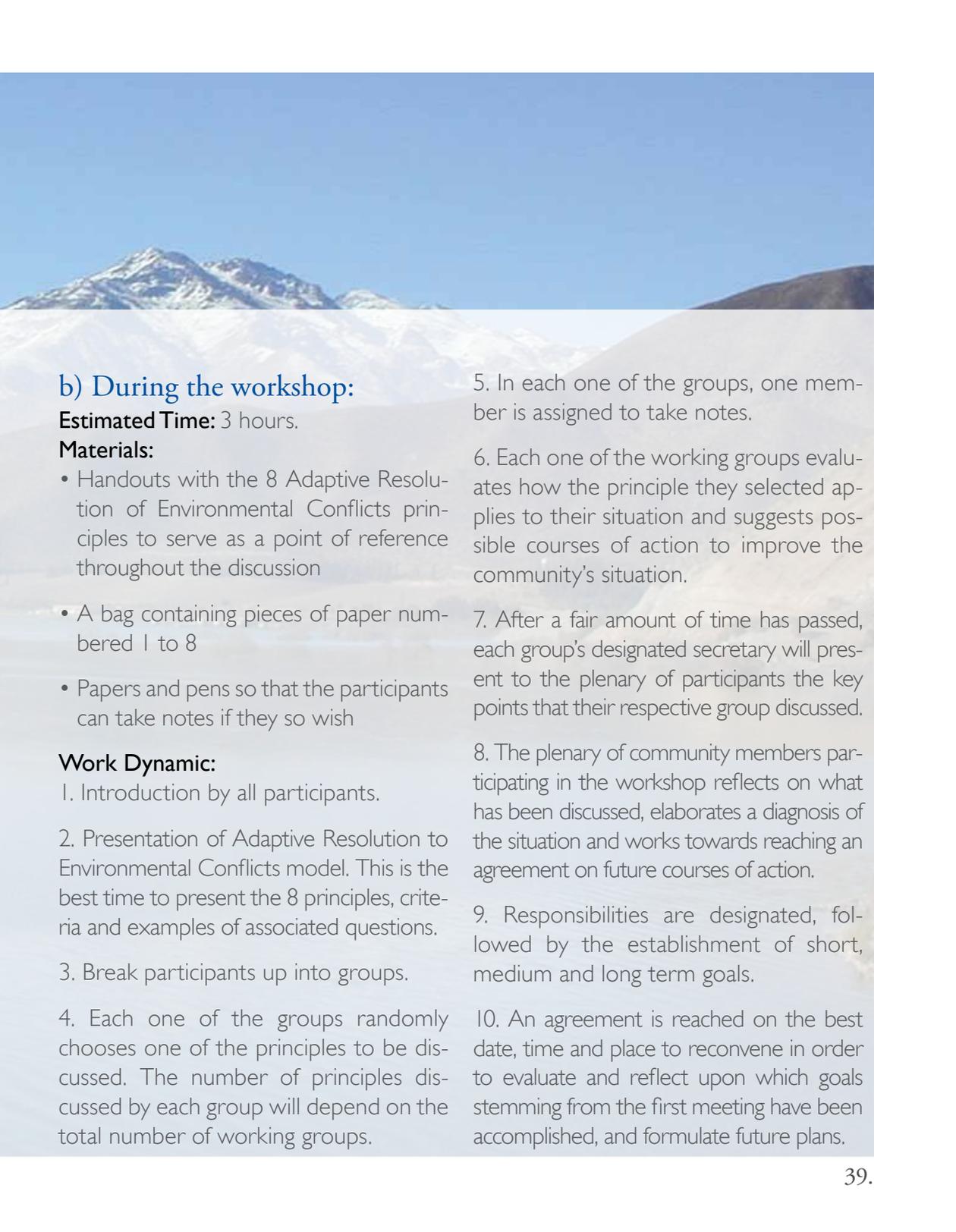
Activities

The Adaptive Resolution of Environmental Conflicts model can help to guide a community's process of dialogue when they are locked in an environmental conflict; it serves as a diagnostic tool that allows a greater understanding of the situation that the community faces in relation to the eight principles outlined above. At the same time, the criteria that guide each principle can serve as a guide for action.

The following is a suggested outline for a community activity based on the Adaptive Resolution of Environmental Conflicts methodology.

a) Prior to the workshop:

Gather together all interested community members to participate in a workshop where the environmental conflict that is affecting them will be discussed.



b) During the workshop:

Estimated Time: 3 hours.

Materials:

- Handouts with the 8 Adaptive Resolution of Environmental Conflicts principles to serve as a point of reference throughout the discussion
- A bag containing pieces of paper numbered 1 to 8
- Papers and pens so that the participants can take notes if they so wish

Work Dynamic:

1. Introduction by all participants.
2. Presentation of Adaptive Resolution to Environmental Conflicts model. This is the best time to present the 8 principles, criteria and examples of associated questions.
3. Break participants up into groups.
4. Each one of the groups randomly chooses one of the principles to be discussed. The number of principles discussed by each group will depend on the total number of working groups.
5. In each one of the groups, one member is assigned to take notes.
6. Each one of the working groups evaluates how the principle they selected applies to their situation and suggests possible courses of action to improve the community's situation.
7. After a fair amount of time has passed, each group's designated secretary will present to the plenary of participants the key points that their respective group discussed.
8. The plenary of community members participating in the workshop reflects on what has been discussed, elaborates a diagnosis of the situation and works towards reaching an agreement on future courses of action.
9. Responsibilities are designated, followed by the establishment of short, medium and long term goals.
10. An agreement is reached on the best date, time and place to reconvene in order to evaluate and reflect upon which goals stemming from the first meeting have been accomplished, and formulate future plans.

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