

Opportunities and challenges for the share management of Central American Transboundary Watersheds; the Trifinio Plan for the Upper Lempa (#394)

Description

The upper watershed (Cuenca Alta) of the Lempa River is shared by Guatemala, El Salvador and Honduras. Its management represents an innovative experience for Central America. It clearly reveals the advance made in the management of a transboundary watershed stemming from the political willingness of the three countries. This has been possible due to an agreement at the uppermost levels to institutionalize the cooperation among the countries through adoption of an International Treaty which materialized into a new form of institutionalization. Simultaneously, the Trifinio experience exposes the limitations of top-down processes not accompanied by strategies designed by local actors. Such a process would ensure the support and endorsement necessary to guarantee functionality and sustainability of actions in the long term.

Action taken

An initiative called Trifinio Plan was formed as part of the regional peace process which culminated in the signing of the Esquipulas peace agreements in 1987. Later, with the support of the General Secretariat of the Organizations of American States (OAS) and the Inter-American Institute for Agricultural Co-operation (IICA, by the Spanish acronym), the Trifinio Plan was developed. The Trifinio Plan allowed for joint actions of cooperation to be carried out among Guatemala, El Salvador and Honduras in a natural area of great value. At the same time, it served as an example of practical efforts being carried out in Central America toward integrations of river basin management. This led to establishment of an international park shared by the three countries taking into account all aspects of IWRM.

Lessons learned

This case shows that political willingness (at the highest level) from the countries involved is crucial for advancing toward an integrated water resources management of transboundary watersheds in Central America. The lessons are summarized as follows:

- The establishment of common institutional framework is indispensable for managing the territory of a shared basin.
- Mechanisms for formulating coordinated interventions are needed and ensuring efficient mechanisms for local participation in decision making, planning and action is crucial.
- Invest in processes to build local capacities for the management of natural resources;
- The lack of sustainability and efficiency of actions planned in a top-down approach and a centralized management relying solely on the involved Ministries.
- Protectionist approaches impede to advance in the management of resources with an IWRM approach in the watershed
- The limitations of incorporating vulnerability and risk in the management of a shared watershed.

Relevance of the case for IWRM

The case reflects the importance of political will in the building of frameworks for institutional transboundary river basins. At the same time, it also reveals the obstacles which arise when a top-down approach moves towards a process involving strategies arising from local actors. Strategies by local actors lead the necessary support to the functioning and sustainability of actions which, in the long run, lead toward integrated water resources management in transboundary rivers basins. Finally, the case focuses more on natural resources management for river basins than on the integrated management of water.

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Description

The Trifinio region covers an area of about 7500 km² in the border areas of Honduras, Guatemala and El Salvador which converges around the mountain mass known as Montecristo Cloud Forest. The region comprises 45 municipalities; 22 belong to Honduras within the departments of Ocotepeque and Copan; 11 are situated in Guatemala and correspond to the departments of Chiquimula and Jutiapa; and 89 are in the departments of Santa Ana and Chalatenango in El Salvador. There are five types of forests found within Trifinio: cloud forests, transitional forests, mixed forest consisting of pine and oak, subtropical dry forests, and tropical forests. The region also has several basins and Lempa a transboundary river basin is one of them which is shared by Guatemala, Honduras and El Salvador. Other rivers include Motagua River flowing toward the Guatemalan territory; and Ulua River into Honduras.

In 2000, the region's population was estimated to be around 670.000 inhabitants, with an average population density of 89 persons per km². It was also estimated that 70% of the population live in rural areas, with a strong prevalence conditions of both relative (87%) and extreme poverty (53%). This situation is explained among other factors by the shortage of productive activities as well as the lack of employment and income generating activities. Seventy five percent of the Trifinio region is mountainous with shallow soils that limit agriculture. The area is predominantly semi-arid with scarce vegetation coverage hence a limitation for agricultural and related activities.

History of the region

Historically, the Trifinio region was characterized as a marginalized and deprived territory and there was no systematic effort by the three countries to develop the region. This has been reflected in the inadequate efforts made to invest in the basic infrastructure necessary for the region's development.

In mid 1990s the situation began to reverse through construction of important infrastructure works which have improved the network of the main roads. Yet efforts towards improving the secondary road systems remain insufficient for the majority of the rural population. This limitation continues to be an obstacle for commercial farming in the region particularly in Honduras where there has been less public financing. Despite this marginalization a "natural" integration has developed in Trifinio especially between the municipalities of Esquipulas, Ocotepeque and Metapan. These factors have not favoured any dynamic and systematized commercial relationship which in part can be explained by the marginalization and lack of communication between these territories and the population

centers of the respective countries. Above all, the recent processes of generation and communications among these municipalities.

Motives for taking action

For several decades now, the governments of El Salvador, Honduras and Guatemala have shown interest in conserving the Montecristo mountain mass, a natural area in a territory shared by the three countries. The initiative of the Trifinio Plan came about in the 1980s as part of the regional peace processes which culminated in the signing of the Esquipulas peace agreements in 1987. Within this framework and under the strong leadership exercised by Roberto Carpio Nicole, the vice-president of Honduras at the time, a process was initiated which led to the subscription of the Treaty 1986 for carrying out the Trifinio Plan among El Salvador, Guatemala and Honduras.

Later, with the support of the General Secretariat of the Organizations of American States (OAS) and the Inter-American Institute for Agricultural Co-operation (IICA, by the Spanish acronym), they proceeded to formulate the Trifinio Plan. The Plan was oriented towards the development of the three countries transboundary region. The Trifinio Plan allowed for joint actions of cooperation to be carried out among Guatemala, El Salvador and Honduras in a natural area of great value. At the same time the plan serves as a practical example of efforts being carried out in Central America toward integrations. The initial idea was to have an international park shared by the three countries. As such, interventions were limited to the conservation and protection of the Montecristo Cloud Forest and the Fraternity Biosphere. Since its start, this marked a strong and concentrated focus on the management of the area's natural resources. Only in El Salvador where actions associated with the need for carrying out protective works for reducing vulnerability to flooding. These actions were carried out in the municipality of Metapán, where flooding was occurring due to the degradation of the upper part of the Montecristo land mass. That's why the intervention focus was largely based upon a logic of protecting the land mass through reforestation activities.

Problems addressed

The Trifinio Plan was oriented toward the integrated, harmonious and balanced development of the transboundary region belonging to the three countries. To this end, the Plan's vision sought to outline actions with a focus on sustainable development based upon citizen participation, decentralization, and the sustainable management of resources, equity, and the incorporation of a gender perspective. As such, the Plan delimited strategic lines of actions such as the following: social development oriented toward improving the population's quality of life; economic development as a permanent process for increasing productive capacity with ecological integrity; tri-national integration understood as a process for facilitating the flow of goods, services and people between the three countries; and environmental protection, understood as process geared toward resign increasing degradation from the overexploitation and irrational management of land and natural resources. The interventionist model developed within the Trifinio Plan focused on attending to the ever increasing exploitation of forested areas, the loss of land for cattle

breeding and agriculture, and the flooding caused by the deforestation of mountainous areas.

The evolution of decisions since the start of the plan

The Trifinio was ratified by the legislative assemblies of the three countries. A Tri-national Commission was created to carry out a rotating Executive Secretariat for a period of four years. This Secretariat consisted of three national directors, the Tri-national Technical Entity and the Consulting Committee, the last of which was made up of departmental governors, mayors of the region, the Trifinio Associations for Sustainable Development (ATRIDESt) of each country's non-governmental organizations working in the region, and other civil society organizations.

Since 1987, the Trifinio Plan's Tri-national Commission which is made up of the vice-presidents of Guatemala, El Salvador and Honduras have approved and adopted strategies for financing studies and for carrying out the 28 tri-national projects outlined in the Plan. In this way, requests for financial assistance were presented to the Central American Bank for Economic Integration (CABEI), the European Economic Community, the governments of the United States, Spain, Holland, Sweden, Federal Germany, Canada and Japan. Other sources of funding included the United Nation's Rotary Fund for the Exploration of Natural Resources, the Organizations of American States (OAS) and the International Union for Nature Conservancy (IUCN).

In 1989, the European Union approved a pilot project aimed at strengthening a tri-national institutional framework and at the same time to develop a massive reforestation program. The project was faced with the problems of land ownership. The majority of critical zones selected for reforestation are under private property. This circumstance determined to a large extent the process and development of the project which had been envisioned for a period of five years but in the end it lasted for ten years. With the support of the European Union, a socio-economic study and a regional development plans were carried out, identifying 31 projects requiring an investment of approximately 800 million U.S. dollar in total.

The development plan supported by the European Union had a geographic coverage of 700 km² (10% of the Trifinio's total area) at a value of 10 million U.S. dollars. It focused on the social, economic and institutional components with emphasis to generate employment. Since its very beginning, the interventions were not designed from the perspective of the particularities of the rivers basin and the management of its water resources. The rivers basin was considered but only from a territorial planning perspective and concentrating actions for the sustainable use of land. Along with this project, practical field experiences began and new spaces were established through the Trifinio Sustainable Development Associations (ATRIDESts) which sought to open up the process to local participation. The ATRIDESts have taken on a distinct profile in each of the countries and depending on the level of involvement of local actors and operational capacity.

The Plan's second phase known as Trifinio 2 focused on the development of the international river basins including the Lempa, Ulúa and Motagua rivers. Within this phase, the goal of the Pilot Plan was to reforest 6,000 hectares and to seek community participation as well as generation of an environmental conscience within the region. At the end of the second phase only some 4,500 hectares were reforested. According to members of the Executive Technical Unit, implementation of the project also led to:

- The modernization of infrastructure in certain cities (Ocotepeque), which had a series of deficiencies in communications and road networks. Ocotepeque is the most emblematic (exemplary) case of development due to its scarcity of infrastructure prior to the Plan's implementation.
- Several small interventions were made from a biodiversity perspective through the Global Environmental Fund (GEF), in an attempt to strengthen the management of the region's existing ecosystems.

Currently the project entitled "Sustainable Rural Development of Fragile Ecological Zones of the Trifinio" (PRODERT) is being carried out with the support of the OAS and the IICA. PRODERT has been carried out in an independent manner. The Tropical Agricultural Research and Higher Education Center (CATIE, by the Spanish acronym) has developed capacity building programmens in the coffee and horticulture areas of the region. More recently the National University of Costa Rica (UNA) and CARE have signed a cooperation agreement with the Tri-national Commission to systematize the Trifinio experience. It is hoped that this experience will be widespread within the region.

In 1997 an approach with the Inter-American Development Bank (IADB) was started to negotiate a US\$150 million loan for the financing of the Tri-National Programme for the Sustainable Development of the Upper Basin of the Lempa River, which is to be contracted out by the three countries. Four components are identified: the management of natural resources; economic diversification; infrastructure; and risk and vulnerability management. The project amount was consequently reduced to US\$32 million dollars due to the low borrowing capacity of the countries. It is hoped that along with this programme, actions focused on water management can be developed, as a key element for the territory's sustainability.

Actors involved and key factors of implementation

The tri-national institutional framework built within the Trifinio Plan requires an important role be played by the three nations' vice-presidents. This has allowed for the minimization of conflict and has generated better opportunities for building a foundation for information sharing and cooperation among the three nations. Coordination mechanisms were created not only for the launching and monitoring of the Trifinio Plan but also other topics related to commercial and transboundary development. Due to its complexity, the institutional framework contains bureaucratic and troublesome processes which have created long gaps between the elaboration of political initiatives and the concretizing of projects. In addition, the organizational and functional structure of the Trifinio Tri-national Commission is costly. The low availability of financial resources by the Commission has prevented the

permanent existence of a technical team for ensuring the sustainable and continued management of initiatives. In general, the countries' resources are limited to a basic budget for the Commission's functioning while very few of these resources are geared toward effective investment.

The model of direct intervention lies fundamentally in the executive capacity of the respective ministries leading to a low level of participation from other social actors. Representatives of the Environmental Funds involved in the Trifinio efforts (Environmental Fund of El Salvador-FONAES, VIDA Foundation in Honduras and the Guatemala Fund for the Environment FOGUAMA) manifested their views on the low level of support and community organization arising from the Plan's implementation. As a matter of fact, their efforts as Environmental Funds have been oriented towards supporting community-based organizations for building up local support and participation. Such local support could contribute to consolidate the process initiated by the ATRIDESTs who have also played a vital role in the promotion of participation of organized groups within the region.

The municipal representatives see the Trifinio Plan from another perspective, as an opportunity which could promote local development and contribute to the implementation of the respective municipal agendas. In this sense, important expectations exist among the municipalities for the achievements that could arise from the implementation of actions by the Trifinio Plan in the region. It is acknowledged that to date, the impact of actions carried out have been limited in the different aspects related to economic, social and environmental matters. Yet the Plan counts with political backing and will at the highest level of each country, and this allows for an active role of national entities in the area. There is a general tendency for improving the levels of integration and participation of the local governments and authorities of the Trifinio. The planning processes initiated at various levels could lead to a more participatory management processes. Each municipality has its own plans and any cooperation initiative within the area should be adapted to their plans. Community organization and the development of municipal alliances could address local needs in a strategic manner, avoiding the execution from central authorities alone.

The self-evaluation undertaken by ATRIDEST representatives with respect to the role they have been playing in the Trifinio Plan reveals that they have been functioning quite well. The ATRIDESTs recognizes a good deal of their actions has had a relevant local impact, while their relationship with municipal governments and authorities has been somewhat more modest. In recent years, within the context of greater levels of responsibility and involvement on behalf of the region's local government, the Tri-national Trifinio Commission and the ATRIDESTs have begun to ponder their relationships with local governments. For their part, representatives of community organizations recognize their dependence upon executive bodies, such as the ATRIDESTs, national technical entities and even the tri-national Programme for the Sustainable Development of the Upper Lempa River Basin, for improving local capacities and autonomy, and for expanding visions for the region's development.

Problems faced

The existing level of poverty and the poor access to means of production among the population of the Trifinio region coupled with their low active participation has placed increasing pressure upon the sustainable management of natural resources which are crucial for the poor. Ensuring the promotion of processes for social and economic development within the area is definitely one of the main challenges. In this regard, the weak presence and low participation of local actors in the processes of defining the actions and priorities of the region only ensure that these decisions are taken by the central spheres of each government included in the agreement. The low levels of organizations obtained to date enormously limit demand driven processes and social control, roles that must be played by local actors in this kind of initiatives, such as the Trifinio Plan to ensure its sustainability. The risk is that creating instances of participation which is due to its low representativeness or strong political links reduce the potential for active participation and intervention in the long term.

The balance between national and tri-national representation is quite complex. The countries' officials exert a strong influence according to their respective political inclinations and power, and this limits the vision and commitment to the tri-national process, that must be consolidated in the long term. The Trifinio Commission's limited economic backing, the low level of support in terms of direct governmental investment resources, and the absence of a strategy for empowering the more participatory local bodies, all serve to decrease possibilities for mobilizing local resources, both public and private.

Finally, the limited knowledge and applications of integrated water resources management concepts in the Trifinio experience strongly lessen the impact of the experience from the perspective of the sustainable management of water in a transboundary river basin. The prevalence of a more traditional approach to river basin plan and programmers (stemming from a rural development and natural resources management perspective), has resulted in the low profile of water in the planning process carried out within the areas covered in the Trifinio Plan.

Achievements

The plan aimed to contribute to the integration of the borderland belt. This implies promoting socio-economic development along with conservations of the Montecristo Cloud Forest and the Fraternity Biosphere Reserve. The project benefited directly only nine municipalities, and also benefited indirectly 22 of the 45 municipalities from the region. Now the project is delimited by a perimeter made up of the highways of Metapán, Esquipulas and Ocotepeque. In the case of El Salvador, there are essentially two focus areas (Matapan and San Ignacio) which due to the absence of communications routes has received a distinct treatment in terms of the involvement and the actions carried out.

As a response to the need for access to potable water and sanitation for the health and hygiene of families, 10 infrastructure projects were carried out. Poor communities who previously never had domestic potable water now have benefited from these projects. The projects reached a total of 80128 inhabitants in 9 municipalities within the three countries. In spite of this, this type of project of introducing potable water was limited to the construction of infrastructure and lacked a social management component which would have ensured that the communities took ownership of the projects. Another important shortcoming was in the management of the local river basin for guaranteeing the sustainability of water sources. In this sense the experience of the Trifinio Plan was presented as a traditional case of natural resource management and associated infrastructure works, rather than focusing on water itself. It has not been possible to express in a practical way, the link between a) water for human use, conservation and production in terms of sustainability of the resource and b) its multiple uses, as an essential resource for life, health, production, the economy and the environment.

As an alternative, the use of Finnish type stoves was promoted which reduced the consumption of firewood by 50%. An agreement was also signed with the petroleum company, Shell, for implementing the use of ovens with propane gas burners for the production of lime. Soil conservation works were carried out on about 1,500 ha, for which 50,000 workers were employed, also, approximately 198 km of back roads were improved, implying the use of 18,000 additional workers and improving access between the productive areas and the commercial centers.

Other activities included the establishment of nurseries, the promotion of forest protection, and the development of capacities in the area of forestry. The incorporation of both organized and non-organized productive farming sectors was promoted, and the army was utilized as labor in the overseeing of reforestation works. In other cases, reforestation options for commercial purposes were defined and these were based on management plans and did not include subsistence farmers. Still there was no general acceptance of the reforestation component within the pilot project. For some land owners, the major success was in the upper areas. There were cases where land owners changed, and the agreements were not respected, and trees that were planted through the project were cut down.

One very successful result has been the creation of environmental committees in each of the countries. These serve as vehicles for citizen participation in environmental protection and conservation. Through small-scale tree planting and solid waste management projects, along with conscience raising campaigns on the importance of environmental management and conservation, has improved their role as interlocutors between local and national public entities.

Impacts

In terms of real territory integration and co-operation in Central America, the Trifinio Plan is the largest in such efforts, and has had the most success. It has succeeded in creating an institutional mechanism at the highest level, involving the vice-presidents of the three

countries. They have led the process with the support of the relevant ministries, especially those of agriculture. In this way, the Trifinio experience has become the main testing ground for territorial integration within Central America.

These define the experience as having great value in terms of establishing a tri-national institutional framework which could help with the consolidation of the Central American integration process. It also acts as a basis for new mechanisms of co-operation and development among shared river basins. In general, the evaluation of efforts developed to date has been positive, both in terms of the institutional framework created and the levels of competence, as in terms of project and action implementation within the region, in spite that the initiative doesn't has the IWRM as a strategic approach in a conscious manner.

Although the Trifinio Plan does not rely on the integrated management of water resources in the upper Lempa River basin's, the new programs are geared towards the creation and strengthening of management tools which can in fact support IWRM (Integrated Water Resources Management). As one of the main beneficiaries of any positive management activities in the basin of its main source of surface water, El Salvador should assume a role of leadership, both in terms of conceptualization and implementation of these types of programmes, as well as in the evolution of mechanisms which allow for the sustainability of water management affecting downstream waters.

Other interventions have been developed in relation to the institutional framework created by the pilot project. In this way, projects exist financed by the Environmental Funds of the three nations to support the ATRIDESTs and community organizations with small-scale environmental, educational or conservational type actions within the area. These actions are too marginalized to have significant impacts in the region although they do pave the way for the promotion of innovative environmental management practices in organized communities of the Trifinio region. Projects within Trifinio's geographical area of focus which do not recognize the mandate and role of the Tri-national Commission in the area limit the spirit of the Plan and damage the advances made to date in terms of co-ordination and representation. Ensuring that the nations establish competence and complementary mechanisms as well as the institutional framework created by the Plan is indispensable for reducing the effects of this type of situation.

A good part of the actions within other areas of the Trifinio Plan implementation have been limited to respond to demands for social infrastructure projects. In the majority of cases, these actions led to a dependence on the provision of services by outside actors, and were characterized by low levels of active and pro-active participation by the beneficiaries who are currently dissatisfied with the process.

Lesson Learned

- The clear and active participation of the three nations' vice-president, along with the creation of a continued and systematic space for communication have been qualitatively fundamental factors in maintaining the project for so many years. It

has also generated positive outcomes in terms of managing the diverse conflicts between the participating nations.

- The sustainability of the process depends on citizen's participation and providing the means for consultation and decision-making for projects within the Trifinio area. This is in line with the natural resources conservation and possibilities for improving the socio-economic conditions of the populations along the Upper Lempa basin.
- The start of environmental educational campaigns with children and their teachers that gives priority to water could lead to processes of environmental awareness raising that in the long term can contribute to the area's socio-economic development process.
- Environmental Funds have become promoters of local organizations (such as the environmental committees), with a commitment to medium and long-term actions for the region's environmental sustainability. These organizations increasingly represent key actors who have become intrinsically involved in the activities of local and national government and are needed for ensuring the viability of the Trifinio Plan's actions.
- The introduction of new production practices in the area represent novel alternatives for small-and medium-scale farmers for producing in balance with nature. Examples include soil conservation, forestry, crop diversification, etc. The diversification of income coming from agriculture-related services is promoted and serves as a window of opportunity for the Trifinio population.
- The Upper Lempa Basin Program could generate the mechanisms for the protection and sustainable management for the river basin as well as tools for responding to the needs of managing the region's water resources. This opens up the possibility for designing a program based on the integrated management of the upper Lempa's water resources. It also serves as a reference for other Central American realities that present common elements.
- The Trifinio experience reveals the need for guaranteeing a link between the institutional framework of the Plan and the region's integration. One possible means of achieving this could be through a Regional Unit for the management of transboundary river basins, within the frame work of the Central America Integration System (SICA). SICA's mandate is to coordinate such efforts and ensure their link to the regional structure responsible for integration. Another example could be to use operational units for carrying out projects.

Limitations and Challenges

- The Organizational figures could become merely ornamental, lacking real involvement and simply backing central decisions. The risk exists of creating instances of participation which do not truly exercise their role due to poor representation or political links. The balance between national and tri-national representation is quite precarious and remains complex. A strong influence and bias exist among the active officials of the three nations and their respective political

inclinations limit the vision and commitment to the tri-national process. There is need to overcome this tendencies.

- At the operational level of the Trifinio's institutional framework, each country has one national representative. This situation, combined with a lack of clarity regarding the role and nature of each representative's mandate has in some cases led to conflicts in abilities and decisions which slow down the processes of implementing actions. Revising this situation is fundamental for guaranteeing efficiency in meeting the Trifinio Plan's mandate.
- Due to its complexity, the organizational and operational structure of the Tri-national Trifinio Commission is financially costly, both in terms of its level of representation as well as in the requirements of existing functionality. The reduced availability of the Commissions' financial resources has prevented it from being supported by a permanent technical team which could ensure sustainable management and the continuity of initiatives.
- Projects focused within the Trifinio's geographical area, which do not recognize the mandate and role-of the Tri-national Commission in the area, limit the spirit of the Plan and damage the advances obtained in terms of representation and co-ordination. Only 22 of the region's corresponding 45 municipalities have at any time participated in the Plan's implementation. This number is quite low given the dimensions of the territory covered by the Treaty.
- The role of local governments and community organizations is an enormous challenge for guaranteeing the strategic perspective of the sustainability of actions within the Trifinio. The lack of involvement by municipalities and community organizations within the processes, the lack of resources assigned to them, and the lack of economic tools which they could apply, could in part explain the weak presence and participation which exists to date an must be reversed.
- The investments made in the region are dependent upon the vision and strategy adopted by the central government via their ministries. In the majority of cases, these ministries have been the bodies carrying out actions where private investment has been absent in the area. This makes the implementation of projects and programs extremely vulnerable and subject to political discretion. As processes go from being strictly led by the public sector towards being shared with local actors, the invested resources allow for better development of opportunities.
- The financial support of the three countries for the functioning of the Commission and its executive branches does not imply sufficient resources beyond the institutional operation of the technical office. This limits the impact of the actions and their sustainability if they are not accompanied by an adequate local support. In the same context, the non-financial support provided by the ministries for implementing the Plan initiatives and actions are not formally registered. This represents an important challenge which must be overcome, as this could then encourage the mobilization of more and diverse resources.
- No clear or deliberate strategy exists for promoting private sector participation in the Trifinio Plan. This has implied reduced local dynamism and actions generally stimulated from the public sector. The existing heterogeneity of land ownership in the three countries has become a determining factor in the implementation of

reforestation and soil conservation processes. Incentives have had a limited impact upon the actions. The Promotion of reforestation and the use of soils in the Trifinio's have excluded small-scale producers. The financial mechanisms used for promoting reforestation, forestry, and soil conservation have been insufficient and, in some cases. This has been even further aggravated by the risk of droughts and fires.

- A good part of the reforestation activities were based on the possibility of exploiting the forest and generating income in the medium and long term but this was not complemented with financial resources for reconverting of land use. This situation has led to the inability of a large portion of participating land owners to repay their debts.
- The predominantly conservationist focus implemented in the Trifinio Plan's actions remains quite detached from the need to promote interventionist processes and models which integrate the territory's social, economic and environmental dimensions. The idea of incorporating sustainability criteria has stemmed from local organization and participation. A good part of the action in the other areas of the Trifinio Plan's implementation has been limited to responding to demands for social infrastructure projects. In the majority of cases, this action has led to a dependence upon outsiders for providing services and characterized by a low level of active beneficiary participation. Reversing this tendency depends, to a large extent, on promoting more participatory processes for joint or shared responsibility.
- The integrated management of the river basin's water resources is highly limited in the plan's conception and its implementation. The role of water in the plans, actions and processes underway has a very low profile when considering the attention given to land and forest resources.
- The Trifinios Plan has generally not incorporated an urban dimension. Sustainable strategies do not exist for overseeing processes of managing Trifinio's principle urban centers (Esquipulas, Ocatepeque, Metapán). These urban centers strongly influence development through the expansion of disorganized marginal urban areas, contamination, and the pressure placed upon land and vulnerable areas. This implies a need to design and develop urban management strategies and their links to rural areas, requiring the consideration of important efforts by other actors.

Replicability

In general, there exists a very positive assessment of the cooperation among the three governments within the Trifinio experience. The experience is defined as a symbol of integration among the countries which, through joint and coordinated efforts, have achieved a common intervention. The possibility of replicating the model in other transboundary initiatives is being considered by the respective vice-presidencies. According to national representatives in light of the Trifinio experience interest exists in proposing a transboundary organizational model. This model should be expressed in the institutional and legal framework of Central American Integration System, and its managing bodies should be based upon the results and institutional arrangements obtained in the Trifinio.

Consensus currently exists among the national authorities of Guatemala and El Salvador, to advance in the conformation of an international legal instrument, which would allow for a Bi-national Commission for the Paz River basin. Within this Framework, applications have been made of the OAS to formulate a treaty which corresponds to the Trifinio region's conception and to create an institutional framework with similar attributes and characteristics for the Paz River basin. Everything seems to indicate that the process initiated for replicating the Trifinio experience is irreversible. This is one reason why ensuring that the management of water resources is given its strategic importance within this new experience. The general observations made by the vice-presidents of both countries clearly indicate the need to design a legal instrument for establishing the Bi-national Commissions since its creation could create opportunities to access sources of international cooperation for implementing concrete actions within this basin.

In this sense, the observation made by the representative of the vice-presidents is important for incorporating the lessons learned from Trifinio. Above all, they all refer to the need for an active social foundation within the territory which would include the local authorities and the community organizations. These could guarantee the approval and sustainability of actions in the long term. However, despite the recognition and expression of the need to advance in this manner, all signs indicate that they would be unwilling to wait for process initiated from the grassroots level because of the time this would take. Because of this, it is assumed that within the process for the Paz River basin, the creation and signing of the Bilateral Treaty will be simultaneously promoted along with the promotion of local organization will again be the Treaty and the establishing of a bi-national institutional framework which will determine the margins of labor and actions of the local actors. This will likely reproduce the Trifinio experience in a similar manner.

It is expected that the emphasis on managing water resources will become a different element from that of the Trifinio experience. It is likely that this will open up possibilities for the process in the Paz River basin to integrate the management of water resources as a dynamic element in the river basin's activities. Replicating institutional schemes is not a mechanical act. In processes such as these, it must be guaranteed that institutional framework being built can set up more concrete mechanisms for involving local actors. Beyond the vision of the officials, it would appear that Central America should not follow the path of reproducing treaties for each and every transboundary initiative.

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