



Sustainable Livelihoods and Biodiversity in Developing Countries

Conserving Biodiversity and Sustaining Livelihoods in the Térraba-Sierpe River Basin- a Legal Perspective on Biodiversity, Water and Coastal Ecosystems

Milestone Report 9.2

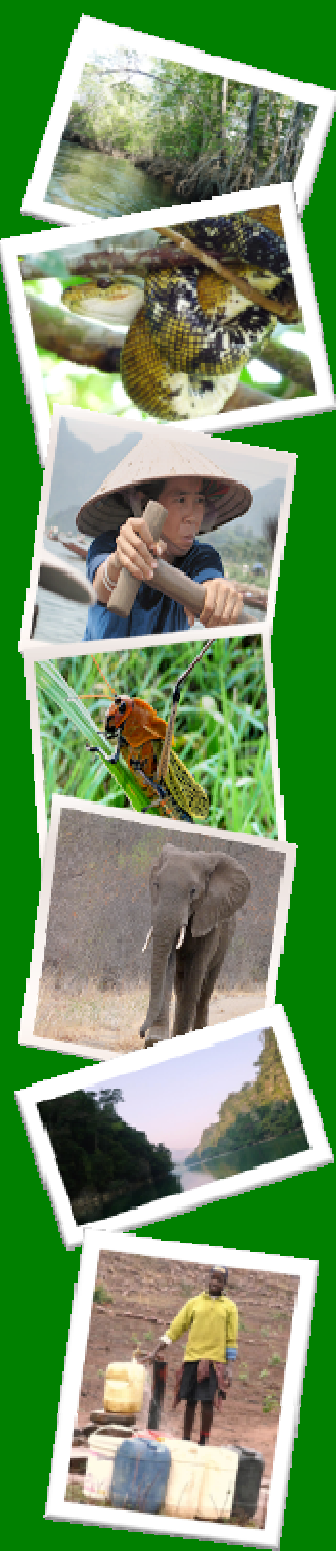
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CONSERVING BIODIVERSITY AND SUSTAINING LIVELIHOODS IN THE TÈRRABA-SIERPE RIVER BASIN – A LEGAL PERSPECTIVE ON BIODIVERSITY, WATER AND COASTAL ECOSYSTEMS

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Abbreviations

ACOSA: Área de conservación Osa
CAFTA: Central American Free-Trade Agreement
CBD: Convention on biological diversity
EIE: Environmental impact evaluation
EIA: Environmental impact assessment
EDA: Estudio de Diagnostico Ambiental
ICE: Instituto Costarricense de Electricidad
MINAET: Ministerio de ambiente, energía y telecomunicaciones
SETENA: Secretaría Técnica Nacional Ambiental
SINAC: Sistema Nacional de áreas de conservación

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1. Introduction

Located in the Mesoamerica biodiversity hotspot, Costa Rica conjures up images of pristine tropical forests, sandy beaches, and amazing biological diversity. More than 25% of the country is covered by protected areas and Costa Rica has one of the more advanced biodiversity laws. But the slogan of the Costa Rican institute of tourism “no artificial ingredient” hides another reality spurred by a liberal economic model, focused on foreign investments and exporting agriculture at the expenses of ecosystems. Despite being ranked as the third country on the Environmental Performance Index 2010² just after Iceland and Switzerland, Costa Rica is a country of paradoxes and contradictions between its legal and policy framework and the reality on the ground.³ The last national report to the CBD shows that marine, costal and water ecosystems require critical attention.⁴

The Livediverse Costa Rican case-study embodies many of the crucial stakes and conflicts Costa Rica is facing at the national level: extension of cash crops production (pineapples, palms); national development projects, such as El Diquís hydropower dam or an international airport in Osa, which has just been declared of national public interest by the new government; real estate development along the coast; poverty, etc. To put it in another way, it epitomizes the conflicts between biodiversity conservation and development, and the search for their reconciliation, through an effective governance system. Interactions between these different concerns take the form of a complex interplay of laws, polices and institutions, consequently WP9.2 report will aim at understanding and analysing to what extent the current law and policy architecture supports both biodiversity conservation *and* sustainable livelihoods in the Térraba-Sierpe River Basin and how governance structures might support a win-win situation.

A desktop legal and policy mapping has been first undertaken to identify the current legal and policy framework pertaining to biodiversity conservation and livelihoods issues in Costa Rica and within the case-study area. Nevertheless, the applicable law is sometimes far from being implemented, due to many factors either internal such as inconsistencies, gaps, ambiguities, etc, or external such as conflicts of interests and influence of the different stakeholders. These factors can sometimes be assumed by the analysis of raw materials (such as laws, decrees, case-law, policy documents, national reports etc.) and literature (academic writing, reports from NGOs and international organizations). Though the latter analysis is limited and requires to be

² Yale Center for Environmental Law and Policy, ‘Environmental Performance Index 2010’ (2010) <<http://epi.yale.edu/>> accessed 22/06/2011.

³ Sistema Nacional de Áreas de Conservación, *IV Informe de País al Convenio sobre la Diversidad Biológica* (2009), p.8.

⁴ *Id.* p. 9

supplemented by interviews with experts knowledgeable in the area of law and policy implementation. In the case of Costa Rica, we met environmental law professors from the University of Costa Rica, legal advisers of the environmental Ministry, administrative bodies, and local authorities, and the manager of a protected area. These interviews provided great insights into the complexity of law and policy implementation in Costa Rica and pinpointed key factors influencing their implementation.

This report will firstly describe the existing governance system of the Térraba-river basin case-study area, secondly identify and analyse the factors influencing their implementation, and finally propose potential strategies to overcome barriers to implementation. But in order to understand what we are talking about, an overview of the case-study area is provided.

2. The case-study area

The case-study area of Costa Rica covers the basin of the Térraba-Sierpe river, which make up 5085km².⁵ The case-study area is located in the South-west of Costa Rica, on the Pacific coast. The area is characterised by a high level of biodiversity, 18 protected areas covering 38% of the total basin.⁶ The Livediverse case-study area deals only with one specific protected area in the downstream section of the river basin, namely the Térraba-Sierpe wetlands. It encompasses the highest rate of mangroves within the country.⁷ The wetlands have been protected as a forest reserve since 1977, then under the protected legal category as “humedales”⁸ and acknowledged as a Ramsar site of international importance in 1995.⁹ Despite its formal status, the area is affected by several direct and indirect threats, from the cultivation of rice to the exploitation of its forest resources, along with illegal buildings and the future consequences of the hydropower project to be created in the upper level of the basin.

⁵ Betsy Cedeño and others, *Caracterización Socioeconómica de la Cuenca del Río Grande de Térraba* (2010).

⁶ Betsy Cedeño and others, *Atlas Biofísico de la Cuenca del Río Grande de Térraba. Caracterización Biofísica* (2010).

⁷ Pedro Cordero and Franklin Solano, *El manglar más grande de Costa Rica, Experiencias de la UICN en el proyecto DANIDA-Manglares de Térraba-Sierpe* (2000)

⁸ Decreto Ejecutivo No. 22993-MIRENEM del 21 Febrero 1994 Crea Humedal Nacional Térraba Sierpe.

⁹ Wetlands International, *Information Sheet on Ramsar Wetlands Terraba-Sierpe* (1995)



Figure 1 Map of the case-study area. Source: Escuela de Relaciones Internacionales, Universidad Nacional, *An outline of the biophysical characteristics of the Grande de Térraba River Basin*, internal document, LiveDiverse project

The case-study area is also characterised by a high level of poverty and unemployment.¹⁰ Local communities, whether indigenous or not are using the natural resources of the basin for their livelihoods (such as the collection of pianguas in the wetlands or of timber to make charcoal, etc.). Several economic factors have been identified as impacting the different levels of the basin.¹¹ 62% of the river basin is used for human purposes.¹²

¹⁰Betsy Cedeño and others, *Caracterización Socioeconómica de la Cuenca del Río Grande de Térraba* (2010), p.25-26

¹¹ ibid.

¹² Programa Estado de la Nación, *Estado de la Nación, Capítulo 4 Armonía con la naturaleza* (2007), p.271

The case-study area is affected by potential development projects. The upper part of the basin will be the scene of the biggest hydropower project of Central America. The El Diquís project currently under evaluation, will on the one hand, contribute to energy independency of Costa Rica, but on the other hand, affect one of the most valued ecosystems of the country. In the southern part of the case-study area, the project of an international airport is at the proposal stage.

In the medium part of the basin, the cultivation of pineapples has expanded dramatically making up more than 10 000 ha, and representing 21% of the national production.¹³ The last report of the “Estado de la Nación” underlines the environmental and social consequences of the pineapple extension in the country.¹⁴ Specifically to the Térraba-Sierpe basin, it underscores the fact that the pineapple plantations are located in “*the water and ecological belt of the catchment, which could undermine the quality of the ecosystems, water and soils because of the requirements to prepare the lands and the use of agrochemicals*”.¹⁵ Pineapples are a major threat for the whole basin. Other agricultural crops are also produced in the area, such as palm oil in the lower part of the basin and sugar cane. The major environmental impacts of these crops are underground water pollution and deforestation.

Finally, foreign investments are also gaining more and more importance in the area through the extension of real estate development in the Fila Costeña and the coastal zone, increasing land erosion and sedimentation flowing into the sea.¹⁶ Several real-estate development projects have been brought to a standstill by the administrative environmental tribunal for their failure to comply with applicable laws and regulations.¹⁷

¹³ Betsy Cedeño and others, *Caracterización Socioeconómica de la Cuenca del Río Grande de Térraba* (2010), p.16

¹⁴ Programa Estado de la Nación, *Estado de la Nación, Capítulo 4 Armonía con la naturaleza* (2009)

¹⁵ Programa Estado de la Nación, *Estado de la Nación, Capítulo 4 Armonía con la naturaleza* (2008), p.221

¹⁶ Programa Estado de la Nación, *Estado de la Nación, Capítulo 4 Armonía con la naturaleza* (2007), p.276

¹⁷ Tribunal Ambiental Administrativo, *Osa, un Tesoro en peligro, Informe especial de las cuatro barridas ambientales realizadas en Osa por el Tribunal Ambiental, 2008-2009-2010* (2010)

3. Existing Law and policy governance system

In order to grasp the overall governance system, a first section will describe the policy architecture that is used as a background to frame the legal framework described in the next sections.

3.1 Overarching policy goals and objectives

The Costa Rican policy framework is organised around the National Plan of development (*Plan nacional de desarrollo*) adopted every 4 years. This national plan reflects the policy objectives and strategies of each new government and implements the governmental plan of the newly elected president. The national plan is defined as “a guiding framework of the Government of the Republic which defines the policies that will regulate governmental action to promote the development of the country, increasing production and productivity, income distribution, access to social services and public participation to improve the quality of life of the population. It lays down the commitments for public entities, ministries and other bodies, regarding the priorities, objectives and strategies derived from such policies, which have been set by the Government of the Republic at the national, regional and sectoral levels”.¹⁸

The previous plan for 2006-2010 comprised of 8 specific chapters, mainly focusing on social policy, productive policy, environmental, energy and telecommunication policy, foreign policy and institutional reforms.¹⁹ The National plan is used as a basis for the adoption of specific policy documents. Hence, the specific chapter on the environment makes up the national environmental policy for the next 4 years. This environmental policy is also used by the Ministry of foreign affairs as an external policy and also by the Ministry of trade.²⁰

The national plan for 2011-2014²¹ was adopted in December 2010 on the basis of the government plan of the new President of Costa Rica, Laura Chinchilla, elected at the beginning of 2010. The new plan focuses on the social well-being, public security and social peace, the environment and land planning, competitiveness and innovation. It also takes stock of the achievement of the Millennium Development Goals and assesses the remaining challenges. The environmental chapter elaborates on 5 specific issues, namely, the land use planning, integrated water resources and waste

¹⁸ Article 2, Decreto Ejecutivo No.32988 del 31 Enero 2006 Reglamento a la Ley de la Administración Financiera de la República y Presupuestos Públicos

¹⁹ Ministerio de Planificación Nacional y Política Económica, *Plan Nacional de Desarrollo "Jorge Manuel Dengo Obregón": 2006-2010* (MIDEPLAN, 2007)

²⁰ Interview with Ana Luisa Leiva, MINAET (2010)

²¹ Ministerio de Planificación Nacional y Política Económica, *Plan Nacional de Desarrollo 2011-2014, "María Teresa Obregón Zamora"* (2010)

management, climate change, biodiversity management and finally renewable energies.

Along with this general policy document, several other policies and plans focusing specifically on biodiversity and environmental protection have been adopted over the past 10 years.

Pursuant to the implementation of the Convention on biological diversity, Costa Rica adopted its Biodiversity national strategy in 2000. This key strategic document for biodiversity sets up 13 strategic themes and an action plan to implement them. Its time frame was 5 years and no update has been undertaken so far.²² According to the 4th National report to the CBD, despite not being updated, the national strategy is still relevant and still matches national requirements. Nevertheless, its update is needed to cope with implementation barriers.²³

Political initiatives also stemmed from the previous government such as “*Paz con la naturaleza*” with a view to supporting environmental governmental activities in different fields such as environmental management, land planning, climate change, etc.²⁴

In 2008, the government approved two plans related to the integrated management of water resources. According to the National Plan of Development 2006-2010, one of the main challenges facing Costa Rican environmental policy was the integrated and sustainable management of water resources within a renovated legal and policy framework.²⁵ To that aim, the “*Plan nacional de gestión integrada del recurso hídrico*” was adopted so as to guarantee water quality and quantity for present and future generations.²⁶ The “*Estrategia nacional para la gestión integral de los recursos marinos y costeros de costa Rica*” aims at improving the sustainability of marine and coastal resources. Its implementation is based on several principles such as the ecosystem approach, sustainable development, well-being and social solidarity, equity, participation, adaptation, etc.²⁷ Pursuant to its obligations under the Convention on wetlands of international importance,²⁸ Costa Rica also adopted its National Wetlands

²² Sistema Nacional de Áreas de Conservación, *IV Informe de País al Convenio sobre la Diversidad Biológica* (2009), p.82

Pursuant to the law on biodiversity of 1998, the drafting and updating of the biodiversity national strategy fall under the competencies of the CONAGEBIO (Comisión Nacional para la gestión de la biodiversidad) and the CONAC (Consejo Nacional de áreas de conservación).

²³ *Id.*, p.84

²⁴ Costa Rica, ‘Paz con la naturaleza’ (2010) <<http://pazconlanaturaleza.org>> accessed 22/06/2011

²⁵ Ministerio de Planificación Nacional y Política Económica, *Plan Nacional de Desarrollo "Jorge Manuel Dengo Obregón": 2006-2010* (MIDEPLAN, 2007), p.80

²⁶ MINAET, *Plan nacional de gestión integrada del recurso hídrico* (2008)

²⁷ Comisión interinstitucional de la zona económica exclusiva de Costa Rica, *Estrategia nacional para la gestión integral de los recursos marinos y costeros de costa Rica* (2008), p.21-23

²⁸ Indeed, no article of the Ramsar convention requires States party to implement a national wetlands policy. Nevertheless, article 3 states that “Contracting Parties shall formulate and implement their

Policy in 2001 in order to improve the conservation and wise use of wetlands' ecosystems through the coordinated action of the civil society and the government.²⁹

The “*Estrategia Nacional de Cambio Climático*” was adopted in 2009³⁰ with a view to making Costa Rica, a carbon neutral country by 2021. The strategy is based on 4 principles, shared responsibility, opportunity, capacity-building and legitimacy to influence internationally. The strategy has identified 5 axes: offset, vulnerability and adaptation, measurement system, capacity-building and technology transfer and finally education and awareness raising.

Finally, in order to support the development of public policies in Costa Rica, the “*Estado de la Nación*” is published each year by an independent research team gathering researchers from Costa Rican universities. This document encompasses different policy areas such as social, economical, environmental and political aspects of national development. Each year, the report takes stocks of the evolution of sustainable development in the country, underlines the positive and negative trends, and assesses policy-making and respect of State's commitments. Its main objectives are to increase public information and participation but also political accountability.³¹

3.2 International and regional legal commitments

Costa Rica has ratified a wide range of international environmental agreements³² along with regional instruments.³³ Regarding international agreements, it is necessary

planning so as to promote the conservation of the wetlands included in the List, and as far as possible the wise use of wetlands in their territory.” National wetland policies are key tools to implement the wise use concept. To that end, the Ramsar COP approved in 1999 a resolution and guidelines for developing and implementing national wetlands policies 7th Meeting of the COP to the Convention on Wetlands, *Resolution VII.6: Guidelines for developing and implementing National Wetland Policies* (10-18 May 1999)

²⁹ MINAE, *Política de Humedales de Costa Rica* (2001)

³⁰ MINAET, *Estrategia Nacional de Cambio Climático* (2009)

³¹ Programa Estado de la Nación, ‘Estado de la Nación’ (undated) <<http://www.estadonacion.or.cr>> accessed 22/06/2011

³² Convention on Biological Diversity (28/08/94 party), Cartagena Protocol on biosafety (02/06/06 rat., 05/07/07 party), CITES (28/11/75 entry force), Convention concerning the Protection of the World Cultural and Natural Heritage (23/08/77), International Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, particularly in Africa (08/01/98 rat., 08/04/08 entry), Convention on the Conservation of Migratory Species of Wild Animals (1/8/2007), International Treaty on Plant Genetic Resources for Food and Agriculture (rat. 14/11/2006), Convention for the Safeguarding of the Intangible Cultural Heritage (23/02/2007, ratification), United Nations Framework Convention on Climate Change (entry into force 24/11/94), Kyoto Protocol (entry into force 16/02/05), Convention on Wetlands of International Importance (Ramsar Convention) (27/04/92).

³³ Convention for the Conservation of the Biodiversity and the Protection of Wilderness Areas in Central America; Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere; Regional Convention for the management and conservation of the natural forest ecosystems and the development of forest plantations

Costa Rica is also a member of the *Comisión Centroamericana de Ambiente y Desarrollo* which gathers ministries of the environment of 8 Central American countries. It was created in 1989 with the

to mention the Convention on biological diversity, the Convention concerning the protection of the world cultural and natural heritage, the Ramsar Convention on wetlands. Most of these conventions come with secondary decision-making documents with a more or less binding effect, but which influence national legislation and policy.³⁴

Costa Rica has also ratified all international and regional agreements pertaining to human rights. Thus, it is a party to the International Covenant on Economic, Social and Cultural Rights, the International Covenant on Civil and Political Rights and its Optional Protocol, the International Convention on the Elimination of All Forms of Racial Discrimination, the Convention concerning Indigenous and Tribal Peoples in Independent Countries. It is also a party to the American Convention on Human Rights (1948) and its additional Protocol on Human Rights in the Area of Economic Social and Cultural Rights, the so-called “Protocol of San Salvador”.

Moreover, Costa Rica has ratified trade agreements such as those of the World Trade Organisation and the CAFTA (Central American Free-Trade Agreement)³⁵ which are likely to impact its environmental and human rights policies and legal framework. Chapter 17 of the CAFTA is specifically related to the environment and its implementation will entail streamlining environmental legislation and institutions. States’ party to the CAFTA are allowed to set up their own level of environmental protection and commit themselves not to weaken their environmental legislation and protection in order to establish, retain or attract foreign investments (article 17.2.2). Moreover, the CAFTA allows any “person of a Party [to] file a submission asserting that a Party is failing to effectively enforce its environmental laws” (art.17.7).³⁶

According to the article 7 of the Constitution, international agreements signed by the National Assembly have a higher authority than national law. The Constitutional Court has specified in several judgments the scope of this article considering that international environmental treaties shall be respected regardless of a law implementing them.³⁷ Therefore, any citizen can challenge laws and regulations that would not comply with international commitments. Such an avenue is possible by challenging the constitutionality of laws or through the “*recurso de amparo*” in order to protect human rights. Indeed, the Constitution of Costa Rica guarantees and protects two major rights of citizens. Article 48 of the Constitution states that “*Anyone has the right of Habeas Corpus to secure his/her freedom and personal integrity, and the right of amparo action to maintain or restore the enjoyment of the other rights*

aim of managing a regional regime of cooperation in the field of the environment. An environmental plan for the Central American Region is adopted every 4 years, the current plan runs from 2010 to 2014

³⁴ Such as the decisions adopted by the Conferences of the Parties to the different agreements.

³⁵ The Central American Free-Trade Agreement has entered into effect in 2009.

³⁶ Lauren A. Hopkins, ‘Protecting Costa Rica’s Osa Peninsula: CAFTA’s Citizen Submission Process and Beyond’ 31 *Vermont Law Review* (2007) p.381

³⁷ Mario Peña Chacón, *Tesis de derecho ambiental* (2008)

enshrined in the Constitution, along with the fundamental rights laid down in human rights international instruments, applicable to the Republic.”³⁸ The Constitutional Chamber plays a far-reaching role in protecting human rights.

Committed by these agreements, Costa Rica has to implement their provisions. A general comment stemmed from the interviews with experts, considering that Costa Rica ratifies all treaties and conventions, without any reservations or declarations of interpretation. But such a keen interest in the international forums faces domestic challenges when it comes to implementation.

3.3 General principles underpinning the national legal framework

The *ley organica del ambiente* (Law on the environment), the *ley de biodiversidad* (law on biodiversity), the *ley forestal* (law on forests), the *ley de aguas* (Water law) and the *Ley de uso, manejo y conservación de los suelos* (Law on land use, management and conservation) along with their regulations embody the national legal framework pertaining to biodiversity and ecosystem conservation and sustainable use. Principles of the environmental policies are laid down by article 2 of the law on the environment, such as that the environment is the common heritage of all the people of Costa Rica, and the environment must be utilised in a rational manner in accordance with the principle of sustainable development. A right to the environment is also enshrined within the Constitution in its article 50: everyone has the right to a healthy and ecologically balanced environment.

The law on biodiversity also puts forward general principles in the field of biodiversity, such as the respect of any form of life regardless of their value, respect of cultural diversity, equity inter and intra generations (art.9). Article 11 provides for criteria to implement the law, but these criteria are more related to environmental principles as we know them such as precaution, integration and prevention. The use of genetic resources should also guarantee choices of development for future generation, food security, and protection of health. Moreover, the drafting, approval and implementation of plans and authorisations related to natural resources, land planning, industrial or agricultural development, etc, shall take into account biodiversity conservation and sustainable use (art.52).

With respect to water resources management, the National policy is based on the right to water as a human right, on the principles of equity and solidarity for the

³⁸ Point 36-93, UN Human Rights Committee (HRC), *Consideration of reports submitted by States parties under article 40 of the Covenant : International Covenant on Civil and Political Rights : 5th periodic report : Costa Rica, CCPR/C/CRI/5, 6 November 2006, (2006)*

management of water, on the recognition of water as a public good. The management of water should be integrated, decentralized and ensure public participation.³⁹

The law on forests aims to protect, conserve and manage natural forests, but also to regulate the production, development and industrial use of forest resources in compliance with the principle of sustainable and adequate use of natural resources. There is a general prohibition not to change land-use with some specific exceptions.⁴⁰

Regarding land resources, the land law⁴¹ aims to protect, conserve and improve the soils by an integrated and sustainable management. It promotes agroecology as a mean to reconcile agriculture and soil conservation. In indigenous reserves, land covered by forest ecosystems should not be altered so as to keep the ecological balance of watershed and the protection of wildlife. Natural resources should be exploited rationally.⁴²

3.4 Legal framework related to biodiversity conservation and protected areas

The Costa Rican legal framework ensures the conservation and sustainable use of ecosystems and species *in situ* with protected areas and *ex situ*.

Protected areas in Costa Rica account for 25% of the national territory including its marine area. Protected areas in Costa Rica are included in a broad protected areas network called “*Sistema Nacional de áreas de conservación*” (SINAC) made of territorial units “*Áreas de conservación*”.

³⁹ Decreto Ejecutivo No.30480-MINAE del 5 Junio 2002 Determina los principios que regirán la política nacional en materia de gestión de los recursos hídricos y que deberán ser incorporados, en los planes de trabajo de las instituciones públicas relevantes

⁴⁰ Ley Forestal (1996)

⁴¹ Ley de uso, manejo y conservación de suelos (1998)

⁴² Article 7, Ley indígena (1977)

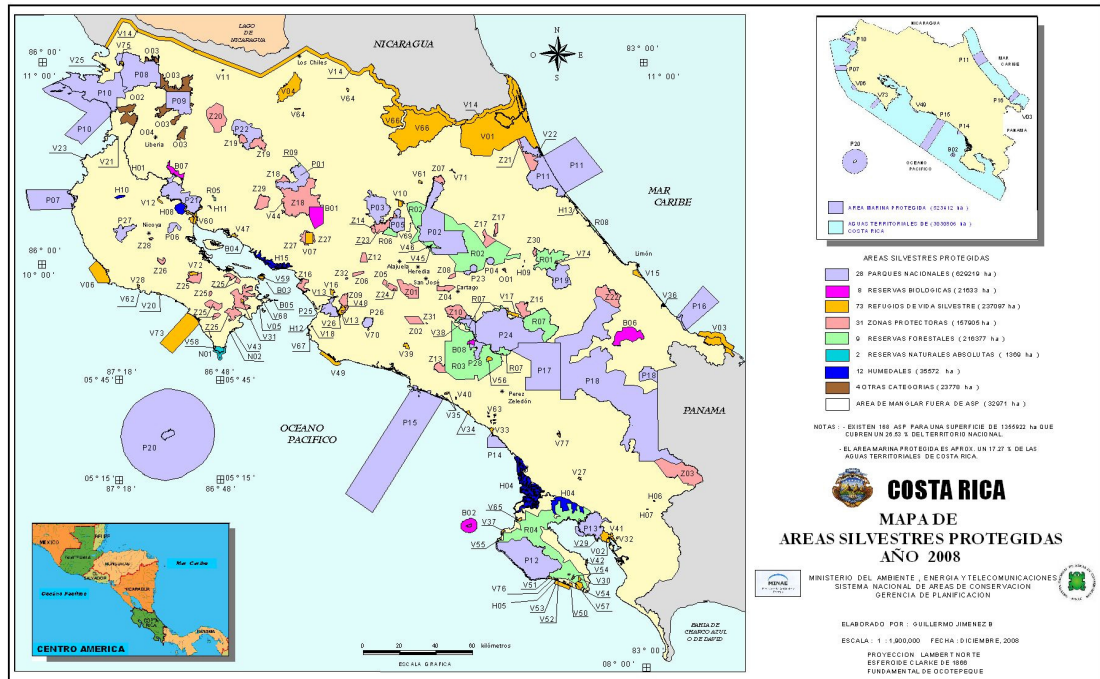


Figure 2 Protected areas in Costa Rica
source: http://www.minae.go.cr/acerca/mapa%20asp_2008.jpg



Figure 3 Áreas de conservación map
source: <http://www.sinac.go.cr/informacion.php>

The case-study area is located for its upper part in the ACLAP “Área de conservación La Amistad Pacífico” and for its lower part in ACOSA “Área de conservación Osa”.⁴³ Protected areas can be established regardless of the land ownership (either on public or private land). But it is important to keep in mind that the right to property protected by the Constitution and the fact that, pursuant to article 45 of the Constitution, no one can be deprived of his/her property except for public reasons and previous financial compensation. In the case of State or public land ownership, the process is rather

⁴³ SINAC Mapa de áreas de conservación (2010) <http://www.sinac.go.cr/areassilvestres.php> accessed 22/06/2011

straightforward. The creation requires preliminary studies, objectives and location of the area, financing.⁴⁴ In the case of private property, the establishment of a protected area can be more difficult as it can require the acquisition of the land by the State. If the protected areas are national parks, biological reserves, national refuges of wildlife; private lands are either bought or expropriated with compensation. In the case of the creation of forest reserves, “protectoras areas”, land are either bought or expropriated except if the land owner agrees to comply with the forest regime.⁴⁵ In the case of the Térraba-Sierpe wetlands, the land ownership is public. When the wetlands were declared as “*humedales*” in 1995, the decree specified that existing private lands were part of the protected areas once the State acquired them, but private owners would benefit from all the ownership attributes (use, enjoyment, disposal/ *usus, abusus, fructus*).

Additionally, article 58 of the law on biodiversity requires that the rights of indigenous people, farmers and other persons, existing previously to the establishment of the protected areas, be taken into account. The decree also requires the mandatory consultation of indigenous peoples and other local communities affected by the creation or modification of protected areas.⁴⁶

Protected areas in Costa Rica can be established in the terrestrial area and in the marine area. Protected areas are defined as “demarcated geographical areas made of land, wetlands and sea. They have been declared as such to embody special meaning for their ecosystems, threatened species, their role for reproduction and other necessities and for its historical and cultural value. These protected areas shall remain dedicated to conservation and protection of biodiversity, soils, water resources, cultural resources and ecosystems services in general”.⁴⁷ Protected areas are created by laws or decrees.

The law on environment provides for the creation of 7 management categories of protected areas: “*reservas forestales, zonas protectoras, parques nacionales, reservas biológicas, refugios nacionales de vida silvestre, humedales, monumentos naturales*”. The law does not specify particular objectives attached to each category, they can be found in article 70 of the executive decree of the biodiversity law which also creates two new protected areas for coastal and marine area: the Management marine areas

⁴⁴ Article 36, Ley Orgánica del Ambiente (1995)

⁴⁵ Article 37, *id.*

⁴⁶ Article 72(h), Decreto Ejecutivo No.34433 del 11 Septiembre 2008 Reglamento a la Ley de Biodiversidad

⁴⁷ Article 58, Ley de biodiversidad (1998)

“*Las áreas silvestres protegidas son zonas geográficas delimitadas, constituidas por terrenos, humedales y porciones de mar. Han sido declaradas como tales por representar significado especial por sus ecosistemas, la existencia de especies amenazadas, la repercusión en la reproducción y otras necesidades y por su significado histórico y cultural. Estas áreas estarán dedicadas a conservación y proteger la biodiversidad, el suelo, el recurso hídrico, los recursos culturales y los servicios de los ecosistemas en general*”

("Area marina de manejo") and the Marine Reserves ("Reservas marinas").⁴⁸ Apart from these specific categories of protected areas, other natural areas can be protected. Thus, the law of forests provides for the protection of zones bordering rivers and water bodies (lakes).⁴⁹ With respect to the case-study area, the Térraba-Sierpe wetland has been protected under the status of "humedales" since 1995 because its habitat has been regarded as critical as a feeding and breeding site and a shelter for a wide diversity of wild fauna and flora.⁵⁰

The law on the environment provides for the common objectives of all protected areas. As such, the objectives of protected areas in Costa Rica are to conserve the natural habitat representative of the different ecoregions, to protect genetic diversity, to ensure the sustainable use of ecosystems while fostering the participation of communities, to promote scientific research, to protect water bodies and catchments.⁵¹ In order to achieve their conservation objectives, each category of protected area benefits from its own regulation of activities. For example, several prohibitions apply within national parks, such as cutting trees, collecting plants, introducing exotic species, etc.⁵² Moreover, the exploitation of subsoil resource is prohibited within national parks and biological reserves. A permit is required if the exploitation is carried out in forest reserves. Regarding wetlands, the environmental law prohibits works that could stop natural cycles of these ecosystems such as the building of dams or drainage.⁵³

Protected areas management categories differ from the issue of their governance: "Categories are independent of who owns, controls or has responsibility for management".⁵⁴ In the case of Costa Rica, article 60 of the law on biodiversity specifies that protected areas can be public (State owned or/and municipality-owned) but also private. But there is no special provisions regarding the co-management of protected areas and the legal framework does not provide much leeway for co-management,⁵⁵ whereas several provisions would support it. Hence the law on environment requires the State and municipalities to foster public participation in decisions and actions aimed at improving or protecting the environment.⁵⁶ Such a statement might include the involvement of the public in the protection of protected

⁴⁸ Decreto Ejecutivo No. 35369-MINAET del 18 Mayo 2009 Regulación de las nuevas categorías de manejo para Áreas Marinas Protegidas, conforme al Reglamento a la Ley de Biodiversidad

⁴⁹ Article 33, Ley Forestal (1996)

⁵⁰ Decreto Ejecutivo No. 22993-MIRENEM del 21 Febrero 1994 Crea Humedal Nacional Térraba Sierpe

⁵¹ Article 35, Ley Orgánica del Ambiente (1995)

⁵² Article 8, Ley del servicio de Parques Nacionales (1977)

⁵³ Article 45, Ley Orgánica del Ambiente (1995)

⁵⁴ Nigel Dudley (ed), *Guidelines for Applying Protected Area Management Categories* (IUCN 2008), p.25

⁵⁵ , MINAE, SINAC and IUCN, *Estado de la gestión compartida de áreas protegidas en Costa Rica* (2006), p.25

⁵⁶ Article 6, Ley Orgánica del Ambiente (1995)

areas. The law on biodiversity also asserts that the participation of communities in the conservation and sustainable use of biological diversity should be promoted.⁵⁷ In the case of the Terraba-Sierpe wetlands, management is ensured by SINAC (ACOSA), the main governing body is therefore governmental.

No legal provision explicitly requires a management plan for protected areas to be set up except for coastal and marine area and wetlands, which are delimited by the Ministry.⁵⁸ However a definition of a management plan of protected areas is provided by the decree to the law on biodiversity,⁵⁹ suggesting that despite not being mandatory they are encouraged. Where established, the management plans of protected areas are first approved by the “*Consejo regional*” of the conservation area, and transmitted to the “*Consejo nacional*”. Management plans of protected areas are approved definitively by the “*Consejo Nacional de Áreas de conservación*”.⁶⁰ Neither the law nor the decree on biodiversity specifies the process by which management plans are drafted, or their content. However, guidelines for the elaboration and execution of management plans were issued by the Ministry of the environment in 2004.⁶¹ Regarding wetlands, the decree related to the criteria for the identification of wetlands, mentions that wetlands are wild areas of multiple uses, which have to be managed pursuant to a management plan, in accordance with the Ramsar Convention.⁶² As far as the Terraba-Sierpe wetlands are concerned, no management plan has been implemented despite attempts since 1998.⁶³ However, a management plan has been adopted by the Consejo Regional of ACOSA in 2010 and is likely to be approved by the Consejo Nacional in the next couple of months.⁶⁴

3.5 Legal framework related to projects likely to impact the environment: the environmental impact evaluation

The second major legal framework to be looked at is related to the projects likely to impact the environment. It is all the more relevant to elaborate on it as studies to build a major infrastructure project in the case study area, namely El Diquís hydropower dam, are under way.

Apart from specific international agreements such as the CBD, Ramsar, the World Heritage Convention which in certain cases require Environmental impact evaluation

⁵⁷ Article 101, Ley de biodiversidad (1998)

⁵⁸ Article 41, Ley Orgánica del Ambiente (1995)

⁵⁹ Article 3 (p), Ley de biodiversidad (1998)

⁶⁰ Article 12.d, Decreto Ejecutivo No.34433 del 11 Septiembre 2008 Reglamento a la Ley de Biodiversidad

⁶¹ MINAE-SINAC, *Guía para la formulación y ejecución de planes de manejo de las áreas silvestres protegidas* (2004)

⁶² Decreto Ejecutivo No. 35803-MINAET del 7 Enero 2010 Criterios Técnicos para la Identificación, Clasificación y Conservación de Humedales, Point VII,

⁶³ Programa Ambiental Regional para Centro America, *Un plan para el manejo sostenido del humedal Sierpe-Terraba* (1998)

⁶⁴ ‘Aprobado plan de manejo para el Humedal Nacional Terraba - Sierpe’ *El país* (18 May 2010)

(EIE), no regional agreements require Costa Rica (and other Central American countries)⁶⁵ to conduct EIE for projects that may potentially impact the environment. Nevertheless, according to principle 17 of the Rio Declaration, “[e]nvironmental impact assessment, as a national instrument, shall be undertaken for proposed activities that are likely to have a significant adverse impact on the environment and are subject to a decision of a competent national authority”⁶⁶.

Pursuant to article 17 of the “*ley organica del ambiente*”, human activities which alter or destroy the environment shall be subject to an environmental impact assessment. The approval of the “*Secretaría Técnica Nacional Ambiental*” (SETENA) is required before any work can be carried out, and triggers off the execution of the project. In any case, the EIE shall be completed and approved before the start of the project.⁶⁷ The overall legal framework of EIE derives from its articles 17 to 24 and was further developed by several decrees, especially the executive decree of 2004 which lays down the different procedures. The law on biodiversity and its decree also complement the framework.

The process of environment impact assessment is divided into several steps and documents.

EIE of projects and activities

The projects, activities, subject to EIE are indeed split into two broad lists. First, projects, works or activities are automatically submitted to an EIE pursuant to a law regardless of their level of environmental impact.⁶⁸ For example, according to article 92 of the “*ley de biodiversidad*”, projects likely to impact biodiversity can be submitted to EIE upon a decision of the CONGEBIO technical body. This provision is in accordance with article 14(a) of the CBD and is specified by the decree of the biodiversity law.

Secondly, projects, works and activities are submitted to an EIE because of their nature and environmental impacts and were included in a second list⁶⁹ by the administrative authority. Depending on the level of their impact (classification of the projects in 4 categories: A, high impact; B1 moderate high impact; B2 moderate low impact; C low impact), they are not subject to the same assessment process.

⁶⁵ A major political initiative stemmed from the Central American Commission on the Environment and Development in 2002 in order to strengthen environmental impact assessment in the region, *Acuerdo para el Fortalecimiento de los Sistemas de Evaluación de Impacto Ambiental en Centroamérica aprobado por las Autoridades de Ambiente y Recursos Naturales de Centroamérica el 4 de Julio del 2002* (2002)

⁶⁶ Such a statement has been repeated during the World Summit on Sustainable Development, point 135, *Plan of Implementation of the World Summit on Sustainable Development* (2002)

⁶⁷ Article 2, Decreto Ejecutivo No.31849-MINAE-SALUD-MOPT-MAG-MEIC del 24 Mayo 2004 Reglamento General sobre los procedimientos de Evaluación de Impacto Ambiental (EIA)

⁶⁸ Annex 1, id.

⁶⁹ Annex 2, id.

Strategic impact assessments aim to integrate environmental impact into the economic development planning (art. 62). Moreover, the State shall also take into account the important negative impacts on biodiversity of its plans and programmes (art.82), in compliance with article 14 of the CBD.

Institutional aspects

Created by the environmental law in 1995,⁷⁰ the SETENA is the administrative body in charge of supervising, reviewing and approving. In case of projects affecting protected areas, forest and water resources, the SETENA shall consult with the “*Area de conservacion*” where is located the project, before taking its decision.⁷¹ Moreover, in order to protect biodiversity, the SETENA shall pay close attention to the location of the site where the project or activity will be carried out. It shall not undermine biodiversity nor cultural practices or knowledge.⁷²

Process of the EIE

The environmental impact evaluation process is divided into different phases: the preliminary impact evaluation, the environmental impact study, and the process of reviewing and monitoring:

- The preliminary impact evaluation allows identifying potential negative effects of a project or activity, in order to decide upon the requirement of a thorough environmental impact study.
- The environmental impact studies are carried out by interdisciplinary teams approved by SETENA. They are included in a list in which the developer can choose.
- SETENA is in charge of reviewing and monitoring the compliance of the project with the EIE requirements. But there is also an internal process specific to each project as each project must appoint a person in charge of checking that the project respects all the EIE commitments.
- In order to ensure that commitments are respected, a warranty of 1% of the amount of investment shall be paid by the project owner annually.⁷³ In case the project owner does not comply with the requirements, SETENA can stop the project.

⁷⁰ Article 83

⁷¹ Article 81, Decreto Ejecutivo No.34433 del 11 Septiembre 2008 Reglamento a la Ley de Biodiversidad

⁷² Article 19, id.

⁷³ Article 21, Ley Orgánica del Ambiente (1995)

Approbation of the assessment and issuance of the “viabilidad ambiental” of the project

SETENA will approve or reject the environmental impact study by delivering a justified resolution, called “*viabilidad (o licencia) ambiental*” which needs to be given grounds.⁷⁴ The decisions of SETENA are mandatory on both the developer whether public or private entities. This “*viabilidad ambiental*” equates with a licence granted to the project. The approval of SETENA is required before the project or activity can be carried out. Indeed, the environmental impact study shall be completed and approved before the execution of the project.⁷⁵ Otherwise, SETENA can cripple the project or even require the destruction of the buildings.⁷⁶ The “*viabilidad ambiental*” comes with a set of commitments including the environmental measures to prevent, reduce, correct and mitigate environmental impacts, along with the potential costs of such measures.⁷⁷ In order to bolster biodiversity conservation, all the environmental impact evaluation tools shall also include criteria related to potential negative impacts of projects on biodiversity, along with means of their reduction and remedy.⁷⁸

For the time being, ICE has not completed the environmental impact studies of El Diquís hydropower project. Once SETENA receives the studies, it will assess them and grant or not the “*viabilidad ambiental*” to the project. The “*viabilidad ambiental*” will then provide official approval to the El Diquís project.

Implementation for procedural rights: information, participation, access to justice

The previous section has set out the process for EIE, however the effectiveness of such a process is heavily contingent on those potentially affected by such developments. Indeed, the implementation of procedural rights such as access to information, participation and access to justice should be guaranteed so as to improve the decision-making process that will lead to authorize or reject a project. Therefore the three components of the procedural right to the environment will be analysed successively.

The right to information makes up the first aspect of the right to the environment and is a prerequisite to an effective and efficient participation. Costa Rica does not have any specific law on access to information. According to article 30 of its Constitution, the free access to administrative departments is guaranteed so as to have information on public matters (which is slightly different from a guarantee of access to

⁷⁴ Article 19, id.

⁷⁵ Article 2, Decreto Ejecutivo No.31849-MINAE-SALUD-MOPT-MAG-MEIC del 24 Mayo 2004 Reglamento General sobre los procedimientos de Evaluación de Impacto Ambiental (EIA)

⁷⁶ Article 93, id.

⁷⁷ Article 3(25), id.

⁷⁸ Article 80, Decreto Ejecutivo No.34433 del 11 Septiembre 2008 Reglamento a la Ley de Biodiversidad

information) except State secrets. With respect to environmental impact evaluation, the project owner and the team in charge of the evaluation shall communicate with the public. They shall present the project so that communities and local authorities can interact. They can carry out inquiries and opinion polls.⁷⁹

Participation is the second procedural pillar. The environmental impact assessment process provides for a right of everyone to be listened to by the SETENA,⁸⁰ in charge of supervising the EIE. This right can be exercised throughout the process of assessment and even during the operational phase of the project. Several ways of “being listened to” are specified by the decree implementing the provisions on EIE. The public can give its comments by written directly to the SETENA. It can also require a private hearing or a public hearing to SETENA.⁸¹ In all cases, the observations shall be included in the final report and taken into consideration (“valorada”= valued). Public hearings in the environmental impact assessment process are not mandatory. It is not required by the general law on the environment, and can be carried out either on the request from the public or if SETENA finds it necessary as in the case of EIE of projects affecting biodiversity.⁸² In case it finds it unnecessary, it will have to provide other ways to gather public comments.⁸³ SETENA has a margin of appreciation whether or not to carry out a public hearing. Public hearings can only be carried out with projects with high environmental impact (“A” project).⁸⁴ Public hearings will involve the municipalities, Asociación de Desarrollo, and any interested person of the civil society, including the representatives of economic activities in the area. The holding of a public hearing should be published in a national newspaper 10 working days before. Public or private hearings shall be transcribed and included in the EIA file. Once realised the EIA is made available to the public.⁸⁵

Finally, “[e]ffective access to judicial and administrative proceedings, including redress and remedy, shall be provided”.⁸⁶ Generally speaking, such a right of redress is necessary to ensure accountability as part of a “good governance”⁸⁷ process, but “it [also] helps ensure consistent and effective implementation of the law, and gives meaning to the principles of access to information and participation in decision

⁷⁹ Article 33, Decreto Ejecutivo No.31849-MINAE-SALUD-MOPT-MAG-MEIC del 24 Mayo 2004 Reglamento General sobre los procedimientos de Evaluación de Impacto Ambiental (EIA)

⁸⁰ Article 22, Ley Orgánica del Ambiente (1995)

⁸¹ Article 55, Decreto Ejecutivo No.31849-MINAE-SALUD-MOPT-MAG-MEIC del 24 Mayo 2004 Reglamento General sobre los procedimientos de Evaluación de Impacto Ambiental (EIA)

⁸² Article 95, Ley de biodiversidad (1998)

⁸³ Article 56, Decreto Ejecutivo No.31849-MINAE-SALUD-MOPT-MAG-MEIC del 24 Mayo 2004 Reglamento General sobre los procedimientos de Evaluación de Impacto Ambiental (EIA)

⁸⁴ Article 3.12, id.

⁸⁵ Article 23, Ley Orgánica del Ambiente (1995)

⁸⁶ Principle 10, United Nations, *Rio Declaration on Environment and Development* (1992)

⁸⁷ Andrew Allan and Alistair Rieu-Clarke, ‘Good governance and IWRM-a legal perspective’ Vol. 24 *Irrigation and Drainage Systems* Special Issue, p.245

making".⁸⁸ Therefore, to what extent the public has a right of redress to administrative or judicial proceedings to appeal the decision of SETENA?

The "*Recurso de amparo*" can be used to challenge the SETENA decisions (its resolutions) which recognise the "*viabilidad*" of the EIE, and thus of the project. Indeed, the "*recurso de amparo*" is opened to anyone who considers that one of his/her constitutional rights including the right to a healthy and balanced environment acknowledged by article 50 of the constitution, has been disregarded by a public entity or decision. Apart from this judicial process, anyone can lodge an administrative complaint in front of the SETENA against a project, work or activity which is taking place under its administrative supervision or which has been approved by the SETENA.⁸⁹ The complaint will be forwarded to the Ministry of the environment. In the case the project, activity was/is not under a SETENA procedure, SETENA shall transmit the case to the Environmental Tribunal.

Expropriations, relocation of people and protection of indigenous rights

Most the time, infrastructure projects, whether they are roads, dams, railways, will likely entail expropriation of private ownership. But even if projects are commissioned by the State and are grounded in national public interest, depriving people from their property requires following a strict process with a view to protecting their fundamental human rights. So much so that anyone can challenge the constitutionality of the decree declaring a project of public utility, if he/she considers that it violates the Constitution and his/her rights.

Looking at this framework is relevant as the El Diquís hydropower project is likely to entail expropriations and relocation of people. According to article 45 of the Constitution, property is inviolable and nobody can be deprived of it except on public interests grounds legally stated and with prior financial compensation. The law on expropriations⁹⁰ lays down the conditions and process of expropriation. One of the prerequisites to expropriation is the declaration of public interest.⁹¹ The activities of public interest called of "*conveniencia nacional e interes publico*", are defined as activities carried out by State bodies, independent institutions or private entities, whose benefits are higher than their environmental and social costs.⁹² The balance between those benefits should be identified through relevant instruments⁹³ and indeed the EIE should be used as a tool to identify this right balance. But one must carefully bear in mind that the decision of SETENA on the EIE is additional to the declaration

⁸⁸ Barbara Lausche, *Guidelines for Protected Areas legislation*. IUCN (2011), p. 62

⁸⁹ Article 51, Decreto Ejecutivo No.31849-MINAE-SALUD-MOPT-MAG-MEIC del 24 Mayo 2004 Reglamento General sobre los procedimientos de Evaluación de Impacto Ambiental (EIA)

⁹⁰ Ley de Expropiaciones (1995)

⁹¹ Article 18, id.

⁹² Article 3(m), Ley Forestal (1996)

⁹³ Article 3(m), id.

of public interest and is not a condition to its issue. The El Diquís hydropower project is a good example.

In the case of projects submitted to an EIE, SETENA will weigh the pros and cons of the project by analysing the EIE, and analysing to what extent the development of the project will affect the environment, and if these impacts are balanced. The definition of the “*viabilidad (licencia) ambiental*” help clarifying its role: “*constitutes the condition of harmonization or of admissible balance from ecological carrying capacity standpoint, between the development and execution of an activity, work or project, its potential environmental impacts, and the environment of the geographical area where it is going to be implemented. From an administrative and legal standpoint, it equates with the document which approves the environmental impact assessment process.*”⁹⁴ Indeed, pursuant to article 24 of the environmental law, the technical criteria and percentages in the deliberation to analyse the EIE shall be made public. Such a requirement will shed light on the decision of SETENA and identify how SETENA has reached its decision and balanced the different factors. Finally, projects declared of public interest are exempted from the respect of several legal provisions. With respect to the provisions of the forest law, projects of public interest can be exempted from the prohibition of land use changes⁹⁵ and also from the prohibition of trees logging in protected areas defined by the law.⁹⁶ Such prohibitions have also been specified for El Diquís hydropower project.

Depriving people of their property can either result in compensating them financially for their loss, or moving them out of their original property. The law on expropriation provides for the legal basis of relocation as a compensation mode, instead of monetary compensation. The law provides for two general cases. On the one hand, a person expropriated can be relocated by the administration if the owner agrees and under the same conditions as previously. On the other hand, the law provides for the relocation of an entire population in case of a project of public interest. The administration is in charge of the relocation, but the companies involved in the project will support the costs.

Relocation of indigenous people requires an additional set of procedures to be considered. Focusing on this specific framework is all the more apposite with respect to the case-study area, as indigenous peoples are likely to be impacted by the El Diquís hydropower project. Indeed, their rights to land and resources are internationally protected under the ILO Convention concerning Indigenous and Tribal Peoples in Independent Countries, N°169 and also by the UN Declaration on the rights of Indigenous peoples. Costa Rica has been a party to the convention since

⁹⁴ Article 3.64, Decreto Ejecutivo No.31849-MINAE-SALUD-MOPT-MAG-MEIC del 24 Mayo 2004 Reglamento General sobre los procedimientos de Evaluación de Impacto Ambiental (EIA)

⁹⁵ Article 19.b, Ley Forestal (1996)

⁹⁶ Article 34, id.

1993 and signed the UN declaration. The convention applies directly to the national legal framework like any other international agreements ratified by the country pursuant to article 7 of the Constitution. The Constitutional Chamber even issued a decision acknowledging the constitutional rank of the ILO Convention, and all its provisions⁹⁷. Therefore, while expropriating and relocating indigenous peoples, Costa Rica must also respect a number of rights and process required under these international commitments.

As a general obligation, indigenous peoples shall be consulted when a legislative or administrative measures may affect them directly (art. 6.1 (a)). Therefore, previously to projects that are likely to impact their lands, the State shall consult them. Moreover, the UN declaration also requires their “*free and informed consent prior to the approval of any project affecting their lands or territories [...] particularly in connection with the development, utilisation or exploitation of mineral, water or other resources*” (art.32.2). Regarding the relocation of indigenous peoples, it will require their free and informed consent pursuant to article 16.2 of the ILO Convention. In case their consent cannot be obtained, the law has to provide for procedures to make them participate. Moreover, parties to the convention “shall respect the special importance for the cultures and spiritual values of the peoples concerned of their relationship with lands and territories” (art. 13.1 ILO Convention). Clearly relocation of indigenous peoples can seriously threaten this relationship with culture and spiritual values and thus threaten their very life.

According to the Costa Rican indigenous law, indigenous people own the land of indigenous reserves.⁹⁸ Indigenous reserves are inalienable, imprescriptible, and exclusive to the indigenous communities living inside. Non indigenous people cannot buy, rent or acquire lands or properties in these reserves. Therefore, expropriations might take place but they must respect international obligations pursuant to the ILO Convention.

3.6 Legal framework related to the protection of the coastal zone and real estate development

The southern part of the Livediverse case-study suffers from an expansion of real estate development which is encroaching progressively on its coastal zone. A brief overview of the legal framework is broached so as to understand how this fragile ecosystem can be protected and face these ongoing threats.

The coast is divided into a zone called “*marítimo-terrestre*” of 200m belonging to the public domain, and subjected to specific regulations pursuant to the “*Ley sobre la zona marítimo terrestre*” and the coastal area beyond this 200m, which can either be

⁹⁷ Point 23, UN Human Rights Committee (HRC), *Consideration of reports submitted by States parties under article 40 of the Covenant : International Covenant on Civil and Political Rights : 5th periodic report : Costa Rica, CCPR/C/CRI/5, 6 November 2006, (2006)*

⁹⁸ Article 2, Ley indígena (1977)

public or private where the national legislation applies.⁹⁹ This paragraph will focus on the former.

With respect to land, the “*Ley de Tierras y Colonización*” identifies the lands belonging to the State, which are inalienable and which cannot be acquired even by possession (land under imprescriptibly). These lands encompass, *inter alia*: areas of 200m along rivers, springs, and of 300m around catchments; areas around volcanoes; and the coastal zone called “*zona marítimo terrestre*”.

The “*zona marítimo terrestre*” is public and belongs to the national heritage.¹⁰⁰ This zone covers a 200m landward area from the limit of the high normal tide and also includes the land and rocks uncovered during the low tide (art. 9). This area is divided into two zones: on the one hand, a public area of 50m from the limit of the high tide, where public access is guaranteed, and the creation of construction or infrastructures is forbidden except few exceptions such as buildings (industries, sports, etc.) requiring to be located nearby the sea (art.18); and on the other hand, another area of 150m called restrictive zone, where prohibitions apply but the delivery of concession (for 5 to 20 years) by municipalities is possible. Nevertheless, municipalities are deprived of their right to grant concessions if the area is made of forests and forestry lands, as these forests belong automatically to the State natural heritage¹⁰¹ and are thus inalienable and imprescriptible.¹⁰²

Moreover, mangroves bordering the continental coastal zone and estuaries are regarded as public zones, part of the national heritage.¹⁰³ Therefore, mangroves are inalienable and imprescriptible. They are automatically protected under the category “wetlands” (*humedales*). Any form of occupation is forbidden.

In the entire “*zona marítimo terrestre*”, it is forbidden to collect fauna and flora, to fence, to build structures, to cut trees, and to carry out any kind of activities, constructions, etc. without a legal authorisation.¹⁰⁴ Owners of lands within the coastal zones shall protect and conserve it. The Costa Rican institute of tourism is in charge of supervising the coastal zone, in the name of the Ministry of the environment.¹⁰⁵

⁹⁹ For a general overview of the legal framework pertaining to the coastal zone see Jorge Cabrera and Shirley Sánchez, *Marco Legal y Estructura Institucional del Desarrollo Turístico e Inmobiliario en la Costa Pacífica de Costa Rica. Informe final* (2009)

¹⁰⁰ Article 1, Ley sobre la zona marítimo terrestre (1977)

¹⁰¹ Procuraduría General de la República, *Dictamen 297 del 19/10/2004* (2004)

¹⁰² Articles 13 to 15, Ley Forestal (1996)

¹⁰³ Decreto Ejecutivo No.22550-MIRENEM del 14 Septiembre 1993 Declara humedales areas de manglares adyacentes a los litorales continentales e insulares del país

¹⁰⁴ Article 12, Ley sobre la zona marítimo terrestre (1977)

¹⁰⁵ Article 2, id.

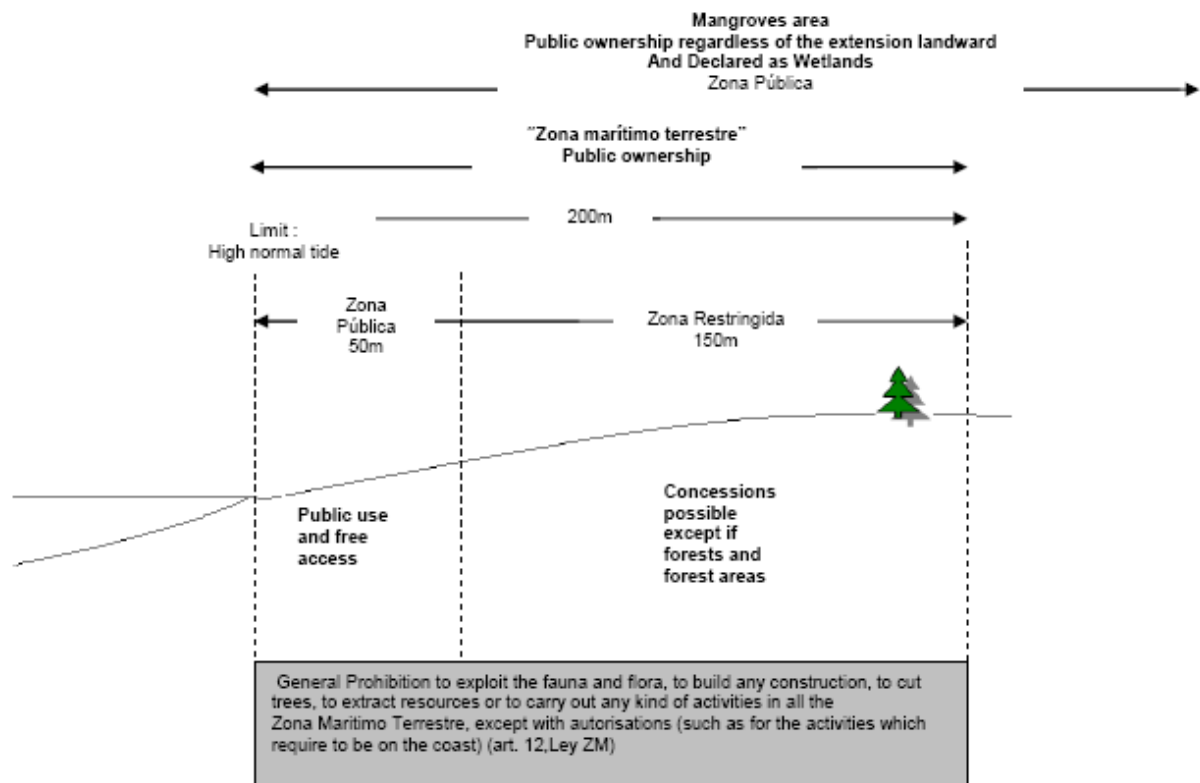


Figure 4 Zoning of the “Zona marítimo terrestre”

In the restrictive zones, concessions are regulated by the law on zona marítimo terrestre and its regulation. They can only be granted by the municipalities in the restricted zones under conditions and require either the approbation of the Tourism institute or of the Instituto de Desarrollo Agrario¹⁰⁶ depending of their location. So as to protect access right to the public area of the coast, concessions should not hinder access to the zone. Concessions cannot be granted to listed entities (foreigners who have been living in the country for less than 5 years, etc.).¹⁰⁷

The law provides for sanctions in case of breach of its provisions.¹⁰⁸ For example, the exploitation of fauna and flora or mangroves is punished by 6 months to 4 years of imprisonment. This criminal sanction does not prevent from sanctions of other nature. Illegal building or development in the coastal zone can be punished of 1 month to 3 years of imprisonment. The “Procuraduría General de la República” is in charge of the legal control of the respect of the law on the coastal zone.¹⁰⁹

3.7 Legal framework related to agriculture production and specifically pineapples production

¹⁰⁶ The Instituto de tierras y colonizacion, named in the law has been transformed into the Instituto de Desarrollo Agrario in 1982

¹⁰⁷ Article 47, Ley sobre la zona marítimo terrestre (1977)

¹⁰⁸ articles 61-65, id.

¹⁰⁹ Article 4, id.

According to current estimates, the case-study area produces 21% of the national pineapple production¹¹⁰ and is steadily expanding, with all its environmental and health consequences. Consequently, a robust legal framework to prevent them is all the more needed.

Agricultural production shall respect on the one hand all the provisions related to the protection of the environment, including, biodiversity, water, etc, and on the other hand, regulations related to health and working conditions. Monoculture of pineapples, palms, sugar canes can induce many environmental and health problems, with respect to the use of chemicals.

The law on environment, the law on forests, the law on health, the law on land use, management and conservation and the law on phytosanitary protection, along with decrees prohibiting or regulating the use of chemical substances, mostly constitute the legal framework relevant to a safe agricultural production. Moreover, Costa Rica is party to different international agreements related to chemicals, including the Stockholm Convention for persistent organic pollutants since 2006,¹¹¹ requiring the country to forbid or regulate the use and trade of different chemical substances.

The law on environment lays down the main obligations of prevention and control of the contamination of the environment (water, soil, air) (chapter XV). The law sets the general principle of the responsibility of the person who contaminates the environment (art.2d). The law on land conservation also specifies provisions as to soil contamination and its conservation. Aims of the phytosanitary law are to foster integrated pests management without affecting the environment, to regulate the use of chemicals in agriculture while protecting human health and the environment.¹¹²

The management of chemicals is supervised by the Ministry of agriculture, which is also in charge of supervising soil conservation and management, in cooperation with the Ministry of the environment and the Ministry of health. A coordination technical secretary created in 2006 under the Ministry of the environment supports the implementation of policies related to chemicals, and the implementation of international obligations. It gathers representatives from the ministries of agriculture, health, environment, NGOs, representatives of the chemical interests.

3.8 Conclusions

¹¹⁰ Betsy Cedeño and others, *Caracterización Socioeconómica de la Cuenca del Río Grande de Térraba* (2010), p.16

¹¹¹ MINAET, *National Implementation Plan for the Stockholm Convention: Persistent Organic Pollutant (POPs) Management in Costa Rica* (2009)

¹¹² Article 2, Ley de Protección Fitosanitaria (1997)

The case-study area is facing a range of issues potentially affecting its biodiversity and ecosystems, but the above analysis demonstrates that Costa Rica has laid down a fairly extensive national legal and policy framework. Obviously, this framework is not perfect on paper, but at least it aims at conserving its natural richness and at ensuring the respect of fundamental human rights, such as the right to the environment. Activities likely to impact natural resources negatively are regulated so as to prevent their effects and mitigate their threats, through processes like environmental impact assessment.

This overview of the legal framework has already broached some of its potential shortcomings, but the major one is the gap to bridge between law on the paper and its implementation. Indeed, despite being a fully-fledged framework, its effective implementation is facing many challenges mainly due to apparent competing interests. The following section aims to pinpoint with a more context-focus, these issues.

4. Factors influencing law and policy implementation: structure, normative content, law and policy interface

By analysing the legal and policy framework applicable to Costa Rica, we came to the conclusion that this framework is rather fully-fledged and encompasses all areas of regulations of interest for the case-study area. Nevertheless, this applicable framework also presents shortcomings in terms of its implementation, not only on the national level but also on the regional and local level. As pointed out by Álvaro Sagot, “[i]f we have a State with good environmental laws and with “sustainable policies”, why the public administration and the local governments didn’t stop the current ecocide”.¹¹³

Costa Rica has been granted the Future policy award 2010 for its 1998 Biodiversity law regarding it as “a milestone of excellence in meeting the goals of the UN Convention on Biological Diversity”.¹¹⁴ Strikingly, the brochure mentions that “[t]he achievements of the Costa Rica biodiversity laws are now threatened by the vested interests of multinational corporations which seek to access the precious resources of Costa Rica by manipulating free trade agreements”.¹¹⁵ Threats from international investments have already taken place in many natural areas of Costa Rica over the past ten years.

Many factors influence this implementation, and an academic research cannot address all of them, especially political contingencies. Indeed, political factors should not change radically the overall long-term policy options of a country especially if the latter commits itself through international agreements,¹¹⁶ but indeed, national and local factors can play a far-reaching role in influencing short-term decisions. Academic research can only report the situation and makes recommendations to improve the factors (such as the so-called “good governance”) impeding an effective implementation of laws and policies.

Whilst, laws and policy appear rather well articulate and without major gaps on paper, the major issue is their consistent and effective implementation along with their true enforcement, which is being prevented by a variety of factors. Examples from the case-study areas will provide an illustration.

4.1 The lack of consistency between environmental priorities and other sectors

¹¹³ Álvaro Sagot, ‘La insostenibilidad de nuestro “desarrollo sostenible”’ Ambientico 13

¹¹⁴ World Future Council, *Future Policy Award 2010: Celebrating the world's best biodiversity policies* (2010) p.2

¹¹⁵ id. p.8

¹¹⁶ But in this case, it is essential to bear in mind that a State can also commits itself through contradictory agreements, and it can result in implementation issues.

Sustainable development aims at reconciling economical, social and environmental stakes, but to strike a balance between them is easier on paper than in reality. Costa Rica is a good example of how a country on the verge of rapid development has to constantly balance its different international commitments and its national priorities.

Resultant inconsistencies stem from conflicting competences between or even within institutions, but also from conflicting policy decisions taken according to timely, even opportunist, political interests. Environmental policy of Costa Rica looks like a rollercoaster, ranging from high to low public interest depending on the opposing economical powers.

Regarding institutional conflicts, some experts mention the thorny structure of the Ministry of the Environment, Energy and Telecommunications (MINAET) which includes the environment but also water, energy, telecommunications and mining matters.¹¹⁷ This situation is rather unique in Central and Southern America.¹¹⁸ According to Nicolas Boeglin, this structure could explain previous erratic actions of the MINAET with respect to legislation likely to impede major energy or mining projects.¹¹⁹ At first sight, such a structure can be at odds with environmental stakes; as the risk is a true overwhelming of economic interests over the environment. Nevertheless it also raises the question of its relevance to achieve full integration of different sectors pursuant to sustainable development objectives. Indeed, apparently the arbitration of contradictory stakes would be easier as it should happen within the structure itself, rather than between different Ministries. But if the environment is to be integrated into the others matters within a single Ministry, it will require a strong political will in that sense but the last National Plan of Development does not seem to call for stronger integration of environmental matters, but rather “*a context of development which integrates economic growth with environmental protection and social equity*”.¹²⁰

Such an inclusive structure might work well also if the stakes are not too contentious, but in the case of Costa Rica, mining and exploitation of natural resources (e.g. hydropower) spurred by international investments might have their own Ministry, so that each relevant Ministry is put on the same equal footing, at least in theory. With a Ministry devoted exclusively to environmental and water matters, it might gain more credibility and powers in front of economic interests, provided that the Ministry's

¹¹⁷ *Interview with Nicolas Boeglin, Universidad de Costa Rica* (2010)

See Decreto Ejecutivo No.35669-MINAET del 4 Diciembre 2009 Reglamento Orgánico del Ministerio de Ambiente, Energía y Telecomunicaciones.

¹¹⁸ Nicolas Boeglin, *Informe Final. Nivel de cumplimiento de decisiones judiciales en materia ambiental relativas a la protección del recurso hídrico* (Decimosexto Informe Estado de la Nación en Desarrollo Humano Sostenible, 2010), p.18

¹¹⁹ *ibid.*

¹²⁰ Ministerio de Planificación Nacional y Política Económica, *Plan Nacional de Desarrollo 2011-2014, “María Teresa Obregón Zamora”* (2010), p.73: “ [...] en un contexto de desarrollo que integre el crecimiento económico con la protección al ambiente y la equidad social”

background is not manoeuvred by potential conflicts of interests (e.g.: professional background related to energy matters).

A recent article published in *Ambientico*, takes stock of the contradictory actions carried out by the previous government from 2006-2010. While advocating “Peace with nature”, many political, regulatory and administrative decisions adopted and implemented, ran counter to environmental conservation.¹²¹ Such decisions have also been underscored in the different “*Estado de la Nación*” over the past years. One of the underlying reasons is the lack of long-term environmental policy encompassing more than the 4 years of the *Plan Nacional de Desarrollo*¹²² to find a better balance between environmental priorities and other policies. “[...] [A]n essential step would be to have an environmental policy to guide properly specific actions for legal matters. While a national plan of development shall meet these objectives, such plans tend to have relatively short horizons (four years) when considering the usefulness of setting up environmental policies with much longer length.”¹²³

One of the latest examples of conflicts between different interests is the international airport project in the Osa region. This project has been declared of national public interest in October 2010¹²⁴ by the newly elected President, giving raise to concerns over the protection of the environmental and cultural wealth of the region.¹²⁵ It also highlights the difficulties in respecting international commitments by Costa Rica, not only pursuant to the Ramsar Convention but also the UNESCO World Heritage Convention. Indeed, in the latter case, Costa Rica proposed in 2001 a site located in the Osa region on the tentative list of the convention. This site, called “Plenitude under the sky. Park of Pre-colombian stones spheres” aims at protecting and highlighting the archaeological specificities harboured by the El Diquís delta. It is worth mentioning that the tentative list is the first step towards the potential inscription of a site into the world heritage site list. In 2007, the government even declared of public interest the cultural landscape of the El Diquís delta and its proposal as a UNESCO World Heritage Site, stating that “*it is of utmost importance to promote research, protection and conservation of the cultural landscape of el Diquís which makes up the basis of the local and national identity, because the understanding of where you are coming from and where we are going, is vital to know who we are*”.¹²⁶

¹²¹ Mauricio Álvarez, ‘La huella “verde” del Gobierno de Óscar Arias ’ *Ambientico* (2010), p.12

¹²² *Interview with Rafael Gonzalez Ballar, Universidad de Costa Rica* (2010)

¹²³ Jorge Cabrera, ‘Desafíos legales del próximo Gobierno ’ *Ambientico* (2010), p.10

¹²⁴ Decreto Ejecutivo No.36226-MOPT del 16 Octubre 2010 Declaratoria de Interés Público de las acciones para determinar la ubicación y construir un Aeropuerto Internacional en la Zona Sur de Costa Rica.

¹²⁵ ‘Construcción de Aeropuerto Internacional en Zona Sur declarada de interés nacional, ’ *El pais* (17 October 2010)

¹²⁶ Decreto Ejecutivo No.34061 del 28 Septiembre 2007 Declara de interés público el Paisaje Cultural del Delta del Diquís y su postulación como Patrimonio de la Humanidad ante la UNESCO, desarrollada por el Museo Nacional de Costa Rica.

On the one hand the government acknowledges that the creation of a world heritage site can provide for a mode of development fair and tailored to the necessities of communities; but on the other hand, it also supports the development of mass tourism by backing the project of an international airport in the same region, which could represent a threat to the natural diversity asset of the region and to its cultural heritage.

4.2 The stumbling blocks impeding a holistic implementation of the legal framework

Despite being a comprehensive legal framework, too many laws and regulations can also end up in a stalemate with respect to their implementation. Moreover, with a legal framework spanning from the late 1940's to 2010, several difficulties can prevent the pursuit of a "holistic" interpretation.¹²⁷ Many laws requiring an update or even annulment are still pending, such as the seemingly endless water law reform project. The water law dates back to 1942 and does not reflect contemporary requirements of water protection and management. Its implementation is now irrelevant,¹²⁸ thus requiring an overall recasting of the water law framework.¹²⁹ Several attempts to come up with a new water law have emerged in the last 10 years, and despite being one of the priority actions called for by the national integrated water resources policy,¹³⁰ no progress has been achieved so far.

The high amount of non-compliance with judicial decisions also highlights this confusing legal framework. Around half of the decisions of amparo recourses are not implemented¹³¹ and the implementation of judicial decisions varies among the different ministries.¹³² Regarding the Ministry of the Environment, it seems that most of the judicial decisions are not implemented, but as underlined by the Ministry itself, the high amount of laws and regulations and their lack of consistency can prevent it from respecting judicial decisions.¹³³ However, judicial decisions can meaningfully impact legislation and policy as the administration can be requested to amend the laws and policies in a very short period of time.

From an institutional standpoint, Prof. Ballar considers that "*the non governability happens, mainly because the institutional structure prevents an optimal guarantee to ensure the implementation of administrative and judicial decisions*".¹³⁴ Such an

¹²⁷ Interview with Rafael Gonzalez Ballar, Universidad de Costa Rica (2010)

¹²⁸ Jorge Mora Portuguez, 'Costa Rica' in Grethel Aguilar and Alejandro Iza (eds), *Gobernanza del Agua en Mesoamérica: Dimensión Ambiental* (UICN 2009), p.5

¹²⁹ id. p.38

¹³⁰ MINAET, *Plan nacional de gestión integrada del recurso hídrico* (2008), p.103

¹³¹ Interview with Rafael Gonzalez Ballar, Universidad de Costa Rica (2010) Rafael González Ballar, 'Quelques réflexions sur la justice environnementale au Costa Rica' in *Études offertes au professeur René Hostiou* (Litec 2008), p.206

¹³² Interview with Nicolas Boeglin, Universidad de Costa Rica (2010)

¹³³ Interview with Ana Luisa Leiva, MINAET (2010)

¹³⁴ Rafael Gonzalez Ballar, *Verdades incómodas sobre la gobernabilidad ambiental en Costa Rica* (Editorial Jurídica continental 2007), p.116

assertion is easily confirmed by the contentious structure of the MINAET previously mentioned, but also by overlapping and fragmented competencies of different institutions. Jorge Cabrera in his report on “The legal and institutional framework related to coastal tourist development” also underlines the gap between the law on paper and the reality. Indeed, contrary to outdated institutions with limited competencies, (new) institutions (like SETENA, the administrative environmental tribunal) which play a growing role in the conservation of the coastal zone are not even mentioned in the relevant laws and regulations.¹³⁵ Such a statement highlights the need to streamline the institutional framework, especially in the environmental sector (including land, water, etc.). The following section will illustrate this institutional confusion.

4.3 Confusion over competences and the different institutions in charge of the land use planning and access to natural resources: the example of the coastal zone

“In Costa Rica, there is no clear and defined integrated land planning, permitting the appropriate management of the land and of natural, urban and productive areas”.¹³⁶ This sentence clearly summarizes the situation facing Costa Rica and the case-study area.

According to the latest *Estado de la Nación*, “The development and promotion of land use planning policies is one of the most obvious and urgent challenge facing the country, with a view to achieving a better exploitation of its resources and the sustainable use of its territory”.¹³⁷ This situation ends up with “the chaotic and conflicting implementation of the land use regulations”.¹³⁸ The report underlines two major consequences: the fragmentation of the land use planning and the duplication of competencies and their conflicts.

The example of the protection and management of the coastal zone is quite instructive. Looking at the case-study area, the municipality of Osa is facing the consequences of the integration of forests and forest land into the State heritage (“*patrimonio del estado*”) pursuant to article 15 of the forest law and the decision of the “*Procuraduría general*” of 2004. Indeed, the MINAET has lagged behind identifying the forest areas belonging to the State heritage. The decision of the PG does not create new obligations upon the MINAET, but confirmed that forest areas belong automatically to the State heritage.

¹³⁵ J. A. Cabrera, *Legal and Institutional Framework Related to Coastal Tourism Development. A description and analysis of the legal and institutional framework related to coastal tourism development in Costa Rica* (2009), p.15

¹³⁶ Haydée Rodríguez Romero, ‘La búsqueda del desarrollo sostenible a través del ordenamiento territorial: elementos para Costa Rica’ 21 *Medio Ambiente & Derecho Revista electrónica de derecho ambiental*

¹³⁷ Programa Estado de la Nación, *Estado de la Nación, Capítulo 1* (2010), p.67

¹³⁸ *Ibid.*

With respect to the case-study area, the Osa municipality has granted concessions on areas within the 150m area of the coastal zone, but which have been lately identified as State heritage because of their forest cover.¹³⁹ On the one hand, the municipality legally granted the concessions but on the other hand, these concessions are now illegal with respect to the new status of the area. This situation puts into question not only the legal security of the concessions, but also the conflicts of competencies between the municipalities and the MINAET. This situation is not specific to the case-study areas but encompasses a broad range of similar stalemates over the Costa Rican coastal zones.

The “*Contraloría General de la República*” stated that “the entities in charge of ensuring the appropriate use and exploitation of this public good (ICT, INVU, Municipalities, MINAE), have not taken due care to monitor their actions as supreme manager of the coastal zone, respectively responsible for the urban development and custodian of the environment”.¹⁴⁰

4.4 The Environmental Impact Assessment: an effective tool to prevent environmental damages of wide development projects?

Despite its value-added in the process of environmental protection, SETENA suffers from a lack of administrative capacity, a lack of independency not only in its structure (despite being a deconcentrated body of the Ministry) but also in its reviewing process (see above). Many of these shortcomings are not new and have been highlighted by the *Estado de la Nación* since the beginning of the millennium.¹⁴¹ As a result, a new decree on environmental impact evaluation, ironically described by the 2005 *Estado de la Nación* “a new regulation for old problems” was adopted in 2005 to resolve some of them, without indeed reaching its entire goal.

Regarding its administrative structure and capacity, SETENA still lacks sufficient staff to carry out the reviewing of the EIE submitted; moreover SETENA does not have any regional or local offices in the country to ensure enforcement of the regulations. The internal structure of the SETENA and especially its plenary commission also needs to be challenged. Its independence from the Ministry and from the ICE is questionable as the former president of SETENA was also the vice-minister in charge of energy matters of the MINAET.¹⁴²

¹³⁹ Interview with Diego Arias, Osa municipality, ZMT department (2010)

¹⁴⁰ Contraloría General de la República, *Informe sobre la planificación del sector costero de Punta Ventanas y las concesiones otorgadas por la municipalidad de Osa al margen de lo dispuesto en el ordenamiento jurídico* (2008), p.11

¹⁴¹ Programa Estado de la Nación, *Estado de la Nación, Capítulo 4 Armonía con la naturaleza* (2004), p.281

¹⁴² This issue has been raised by several interviews. See also www.setena.go.cr

Regarding its competences to review effectively environmental impacts of projects, “its environmental feasibility approval has been applied merely as a bureaucratic requirement rather than an instrument for environmental control”.¹⁴³ Such a statement highlights the fact that SETENA only checks the respect of formalities rather than the impacts of the project, themselves.¹⁴⁴ Paradoxically, smaller projects attract more attention and closer review than wider projects likely to have more impact on the environment.¹⁴⁵ The respect of the “*viabilidad ambiental*” is monitored by environmental controllers chosen and paid by the project owner. Despite being approved on a SETENA list, one may wonder about the independence of the expert in ensuring an effective control.¹⁴⁶

So as to better grasp the underlying stakes of the environmental impact assessment process, it is relevant to focus on two major issues facing the case-study area: firstly, the overall authorisation process undertaken by El Diquís hydropower project as some of the aforementioned shortcomings are likely to impede El Diquís hydropower project process; secondly the process to assess pineapples plantation consequences.

El Diquís

El Diquís electrical hydropower has been declared of public interest and of national importance in February 2008.¹⁴⁷ Indeed, it will contribute to the objectives of the National Plan of Development by decreasing the energetic dependence of Costa Rica and increasing its reliance on renewable energy.¹⁴⁸ The new National Plan of Development for 2010-2014 also mentions explicitly the El Diquís hydropower project and underlines, and thus supports its contribution to the national energy security and its benefit to the economy of the south part of Costa Rica.¹⁴⁹ Regardless of the level of importance of the project, El Diquís hydropower project is required to carry out an EIA¹⁵⁰ as it falls within the ambit of the projects with high environmental

¹⁴³ J. A. Cabrera, *Legal and Institutional Framework Related to Coastal Tourism Development. A description and analysis of the legal and institutional framework related to coastal tourism development in Costa Rica* (2009), p.9

¹⁴⁴ Rafael González Ballar, ‘Quelques réflexions sur la justice environnementale au Costa Rica’ in *Études offertes au professeur René Hostiou* (Litec 2008), p.205

¹⁴⁵ *Interview with Fabián Mora Calderón, SETENA* (2010)

¹⁴⁶ Rafael González Ballar, *op.cit.* p.205

¹⁴⁷ Decreto Ejecutivo No.34312 del 6 Febrero 2008 Declara de Conveniencia Nacional e Interés Público los estudios y las obras del Proyecto Hidroeléctrico El Diquís y sus obras de transmisión, en adelante el Proyecto, las que serán construidas por el Instituto Costarricense de Electricidad.

¹⁴⁸ Ministerio de Planificación Nacional y Política Económica, *Plan Nacional de Desarrollo "Jorge Manuel Dengo Obregón": 2006-2010* (MIDEPLAN, 2007)

¹⁴⁹ Ministerio de Planificación Nacional y Política Económica, *Plan Nacional de Desarrollo 2011-2014, "María Teresa Obregón Zamora"* (2010), p.82

¹⁵⁰ Annex 2, *Reglamento General sobre los procedimientos de Evaluación de Impacto Ambiental (EIA)* (2004) Projects generating electricity thanks to hydropower are classified A project if their power equals or exceeds 2000 KW. Le potential of El Diquís is estimated to be around 650 MW. ICE, *Una aproximación a las implicaciones sociales del Proyecto Hidroeléctrico El Diquís* (2009)

impact according to Annex 2 of the decree, but also as a project of Annex 1 (Generación y transmisión eléctrica.)

Strikingly, the Declaration of public interest of the project was issued by the Ministry before the thorough environmental impact assessment was carried out. Moreover, the ICE has even required an extension of one year (until the end of 2010) to carry out its environmental and social impacts evaluations, delaying the evaluation of its potential impacts.

Such a situation raises questions as the public authority acknowledges the public interest of the project before having access to the full EIA. Even if the administrative body SETENA, can approve or refuse the EIA and grant the permit (“*viabilidad ambiental*”) of the project, the fact that the public interest and national importance of the project have been acknowledged beforehand, means that SETENA will unlikely reject the EIA. Moreover taking into account the major investments made by the ICE pursuant to this decision of public interest, it is all the more unlikely to expect a negative decision from SETENA. This process runs counter to an effective role of the EIA. Indeed, in some countries (such as in France), the EIA is part of a process that will lead to the declaration of public interest. Indeed, the EIA is a tool to shed light on the impacts of the project¹⁵¹ and help the administrative authority to take a decision. Moreover, the public have access to the EIA during a public enquiry and before the administrative authority acknowledges or not the public interest of the planned project. In the case of El Diquís, the administrative authority decided upon the public interest of the project, without taking into account its full consequences, whereas the economic benefits of the project might have outweighed the environmental and social impacts in its decision.

By declaring the project of public interest, the decree will not only authorise the required expropriations but will also smooth the upcoming process led by ICE, by exempting ICE from mandatory provisions¹⁵² and requiring the relevant public authorities (such as SETENA, the Mining Department of MINAET) to deal with ICE’s requests as a matter of priority. Moreover, the decree exempts ICE from several provisions of environmental decrees,¹⁵³ such as the prohibition of felling protected

¹⁵¹ Alexander Gillepsie, ‘Environmental Impact Assessments in International Law’ 17 RECIEL, p.226

¹⁵² Nevertheless, the decree also commits the ICE to some obligation. It requires the ICE to arrange information and negotiation mechanisms from the very beginning of the process with a view to finding a balance between local interests and national energy objectives. The Decree also requires the ICE to invest in the local development of the area, offset the environmental impacts of the project and mitigate its negative impacts. Thus the ICE is required to compensate the same number of trees cut during the project and has created a tree nursery in April 2009 to that end. ICE, *El vivero forestal de El Diquís ¡Déjenos Contarle!* Revista informativa del Proyecto Hidroeléctrico El Diquís (Setiembre 2009)

¹⁵³ Article 9, Decreto Ejecutivo No.34312 del 6 Febrero 2008 Declara de Conveniencia Nacional e Interés Público los estudios y las obras del Proyecto Hidroeléctrico El Diquís y sus obras de transmisión, en adelante el Proyecto, las que serán construidas por el Instituto Costarricense de Electricidad.

trees.¹⁵⁴ ICE is also exempt from the application of the criteria upon which a permit to collect cultural or biological components in protected areas for scientific studies, is granted or not.¹⁵⁵ Such exemptions legitimize forest logging even if the project has not been approved yet. Indeed, declarations of public interest stand for a legal way to authorize the destruction of ecosystems, and should rather be called “Declaration of public disinterest” (“*declaración de inconveniencia nacional*”) according to Alvaro Sagot.¹⁵⁶ Notwithstanding, the Constitutional Court acknowledged in 2006 the constitutionality of the forest law provisions exempting development projects from logging prohibitions under certain conditions.¹⁵⁷ The Court firmly rejects the allegation of violation of the human right to the environment, stating that the provisions do not authorize legitimately public administration to harm the environment and do not set up an exceptional regime.¹⁵⁸

Several judicial actions to challenge the constitutionality of the decree declaring El Diquís of public interest, were launched in 2008, but none were confirmed by the Constitutional Court.¹⁵⁹ The grounds put forward were different, focusing either on the disregard of indigenous people rights (with respect to their territory, their right of participation) or on the destruction of the Térraba Sierpe wetlands. In the case Yoffre Aguirre Castillo, the Constitutional Court rejected the arguments. It confirmed that the decree does not exempt ICE from carrying out an environmental impact assessment and it also fully complies with environmental laws provisions and the constitutional right to a healthy environment.¹⁶⁰

Several amparo actions motivated by the violation of the ILO Convention on indigenous peoples’ rights were also submitted but rejected by the Constitutional Court in 2009 and 2010. In the first action, the Court considered it was too early to note any violation of the Convention especially because the project effectiveness was not asserted for the future.¹⁶¹ Another amparo action was also rejected by the Constitutional Court in last August 2010. In this latter case, the plaintiffs argued that

¹⁵⁴ Decreto Ejecutivo No.25700-MINAE del 15 Noviembre 1996 Declara en Veda Total Aprovechamiento de Arboles en Peligro Extinción indicados en el presente Decreto.

¹⁵⁵ Article 20, *Manual de Procedimientos para Realizar Investigación en Biodiversidad y Recursos Culturales en las Áreas de Conservación*, (2005)

¹⁵⁶ Eduardo Ramírez Flores, ‘Sacan “tarjeta roja” al Gobierno en materia ambiental’ Semanario Universidad (2009)

¹⁵⁷ See *Sentencia 13100, Yoffre Aguirre Castillo, Acción de inconstitucionalidad, Expediente 08-004755-CO, 04/08/2010*. The Court refers to its decision acknowledging the constitutionality of the articles of the forest law exempting infrastructure projects, see *Sentencia 17126, Roberto Soto Vega, Acción de inconstitucionalidad, Expediente: 05-016376-0007-CO, 28/11/2006*

¹⁵⁸ *Sentencia 17126, Roberto Soto Vega, Acción de inconstitucionalidad, Expediente: 05-016376-0007-CO, 28/11/2006*

¹⁵⁹ See *Reserva Indígena Térraba de Buenos Aires, Acción de inconstitucionalidad N° 08-009215-0007-CO, 25/06/2008*

Yoffre Aguirre Castillo, Acción de inconstitucionalidad N° 08-004755-0007-CO, 14/03/2008

¹⁶⁰ *Sentencia 13100, Yoffre Aguirre Castillo, Acción de inconstitucionalidad, Expediente 08-004755-CO, 04/08/2010*

¹⁶¹ *Yoffre Aguirre Castillo, Recurso de amparo, expediente 09-001709-0007-CO*

the El Diquís project would violate article 45 (right to property), article 50 (right to a healthy environment) of the Constitution and the ILO Convention No 169.¹⁶² According to the Court, the project is still in its initial stages and for the time being, no violation of such rights can be asserted, but a thorough new report takes the opposite position of the Court.¹⁶³ Actually this report concludes that there is a violation of indigenous peoples' rights to information, property, representation and effective participation, all these rights being protected under the aforementioned national and international legal framework.

From the above, several conclusions can be drawn: first, there is the need for an improvement of the capacity and structure of the SETENA to make it an efficient, accountable and independent institution; secondly, the necessity to enhance the link between the administrative decision over the public interest of a project and the environmental impact assessment is required, so as to make the latter play its role as a truly preventive tool.

Pineapple plantations

Pineapple plantations can entail environmental consequences before operation, as they can require a land use change by felling trees, and after, through the use of chemicals. Therefore, there are several procedures to follow for soliciting licences to log or to change the land use, to use chemicals, etc.

No specific laws or regulations require pineapple exploitation to be submitted to an environmental impact assessment (EIA). Pineapples exploitations are not included in Annex 1 of the Decree related to environmental impact evaluation. Nevertheless, agriculture activities, including fruit production are included in the annex 2, which submits activities to different evaluation processes according to their potential environmental impacts. Before going further, it is important to notice that the decree never considers fruit production to have a high environmental impact (category A) even with big producers, which are regarded as having a moderate but significant potential impact (category B1).¹⁶⁴ Taking into consideration the latter, pineapple activities are only (and normally) subjected (in case of a big exploitation) to a prognostic-plan of environmental management (*Pronóstico-Plan de Gestión Ambiental* PGA) (and not to an Environmental impact study) which will be assessed by SETENA in order to grant the “*viabilidad ambiental*”.¹⁶⁵ By excluding pineapple plantations from projects of high environmental impacts, they will evade thorough

¹⁶² Enrique Rivera Rivera, *Recurso de amparo, expediente 09-004882-0007-CO*

¹⁶³ The Human Rights Clinic, *Swimming against the Current. The Teribe Peoples and the El Diquís Hydroelectric Project in Costa Rica* (2010)

¹⁶⁴ Annex 2, , *Reglamento General sobre los procedimientos de Evaluación de Impacto Ambiental (EIA)* (2004)

¹⁶⁵ Article 24, id.

public participation, as public audiences are only required for projects falling in category A (high impact).¹⁶⁶

Before the entry into force of the environmental law in 1996, many projects were carried out without any authorization as the “*viabilidad ambiental*” did not exist at that time. To make up for this situation, the SETENA created an instrument to assess the environmental consequences of these ongoing projects and grant them the authorization. But despite the implementation of the environmental law, many projects, especially pineapple plantations, were (and are still) created without any “*viabilidad ambiental*”.¹⁶⁷ So as to fill in this legal vacuum, the SETENA has reestablished a document called “*Estudios de diagnostico ambientales*”(EDA)¹⁶⁸ which is voluntary, and carried out once the project is already undertaken: “*the EDA is a tool of environmental assessment similar to the environmental impact assessment, but instead of being based on predictions (because the project is already under planning or pre-investment stage), it is based on sampling and measurements (because the project is built or in operation)*”.¹⁶⁹ This tool applies to projects which have never undertaken an EIE or a PGA or for which no “*viabilidad ambiental*” has been granted.¹⁷⁰ Consequently, it aims at regularizing a *de facto* situation, but the legal status of the SETENA decision raised questions about its legality. Moreover, the scope of evaluation is narrower not allowing for an overall assessment of direct and indirect impacts of such projects. Nevertheless, the constitutional court has circumscribed the application of the EDA to projects launched before the entry into force of the decree specifying the environmental evaluation (2004) which indeed has put an end to the EDA process.¹⁷¹

To conclude, despite attempts to circumvent the provisions requiring environmental evaluation of projects and the “*viabilidad ambiental*” for ongoing projects, projects launched after 2004 will likely need to be regularized by carrying out the necessary process to obtain a “*viabilidad ambiental*”.

4.5 Wetlands: the “ugly ducklings”¹⁷² in the Costa Rican protected areas system?

¹⁶⁶ Article 3.12, id.

¹⁶⁷ The Administrative Environmental Tribunal has identified pineapples plantations without the “*viabilidad ambiental*” and without any authorisation to fell trees or change land use, in the north zone of Costa Rica, affecting the Caño Negro wetlands and its surroundings, see Tribunal Ambiental Administrativo, *Barridas Ambientales del Primer, Semestre de 2010, Osa, Puntarenas, Caño Negro, San Carlos* (2010), p.6

¹⁶⁸ Interview with Nicolas Boeglin, *Universidad de Costa Rica* (2010)

¹⁶⁹ SETENA, *Resolución No 02572-2009, Acuerdo de la Comisión plenaria, Guía técnica para estudio de diagnóstico ambiental* (2009)

¹⁷⁰ *ibid.*

¹⁷¹ SETENA, *Adendum a la Resolución No 02286-2009, Acuerdo de la Comisión plenaria, dejar sin efecto el acuerdo Numero CP-246-06-SETENA del 8 Agosto 2006* (2009), p.6

¹⁷² Expression used by the manager of the Térraba-Sierpe to depict the Térraba-Sierpe wetlands, but also underlying that in “Costa Rica the wetlands have not received the appropriate support”, Mónica

This final section will mainly focus on the implementation and management concerns of the Terraba-Sierpe wetlands. Although it should be stressed that many wetlands in the country are facing huge threats.¹⁷³

The Terraba-Sierpe wetlands face specific issues with respect to their administrative and financial capacity. Being the latest protected area to have been set up in the ACOSA region, it is also the last to benefit from national support. Moreover, its “humedales” status does not match the same high protection level of national parks or natural reserves, thus emphasising the limited interest in the area,¹⁷⁴ mainly because wetlands are areas of multiple-uses (fishing, logging, molluscs’ extraction, tourism, etc.)¹⁷⁵, hosts inhabitants and are not exclusively dedicated to conservation. Such a discredit is paradoxical as it has been acknowledged as a wetland of international importance and constitutes the widest mangroves area of the country.¹⁷⁶

Ramsar listed wetlands tend to be flagships of national wetlands conservation in the international arena and require States to live up to this international standard. Therefore, it might be expected that the international legal recognition of the Terraba-Sierpe entails a high level of public interest with respect to its management and conservation. But it is far from being the case. One needs to bear in mind that registering a site under the Ramsar Convention should not be taken for granted as States commit themselves to maintain the ecological character which spurred its international acknowledgment. Otherwise, by losing its main features because of “technological developments, pollution or other human interference”¹⁷⁷, a Ramsar site is likely to be listed under the Montreux record and ultimately removed from the international list. The risk of transferring the Terraba-Sierpe wetlands site into the Montreux list shall be fully assessed as threats jeopardising its integrity are steadily growing.

The Terraba-Sierpe wetlands have been protected under the protected areas management category “*humedales*” by decree since 1994. The decree does not elaborate on the regime pertaining to the conservation and management of the wetlands. The decree states that the wetlands are managed by the Ministry of the environment; licences related to the exploitation of mangroves are regulated by the

Uribe, ‘Terraba Sierpe Wetland's Management Plan: struggling for policy change and its implementation’ (Vrije Universiteit 2010), p.28

¹⁷³ Bernardo Aguilar González, ‘Conflictos Ambientales y Humedales: El Frente Nacional por la Protección de los Humedales’ El País (2011)

¹⁷⁴ *Interview with Jaimie Gonzalez, Terraba-Sierpe Wetlands manager* (2010)

¹⁷⁵ Claudine Sierra, Edgar Castillo and Stanley Arguedas, *Documento de Trabajo para el Plan de Manejo del Humedal Nacional Terraba Sierpe: Diagnósticos Biofísico, Social, Económico, Productivo y Análisis Institucional* (2007)

¹⁷⁶ Pedro Cordero and Franklin Solano, *El manglar más grande de Costa Rica, Experiencias de la UICN en el proyecto DANIDA-Manglares de Terraba-Sierpe* (2000)

¹⁷⁷ Article 3.2, Convention on Wetlands of International Importance especially as Waterfowl Habitat

decree on mangroves of 1994; and finally, private properties in the wetlands are part of the protected areas if the State acquires them.¹⁷⁸ Indeed, there is an overlapping legal regime that applies to the wetlands, from forestry law, to the mangroves regulations.

Two main concerns will be analysed, the governance and the management of the wetlands with a view to ensuring their conservation and wise use in accordance with the Ramsar Convention.

According to the IUCN typology of protected areas, being a multiple-use area, the Terraba-Sierpe wetlands fall under the category VI, namely “protected area with sustainable use of natural resources”.¹⁷⁹ But what conclusions can be drawn from such an informal recognition? Actually, pursuant to the IUCN guidance on protected areas management, it is worth mentioning that this category, would require “careful institutional arrangements and approaches to innovative governance”¹⁸⁰ because of the multiple stakeholders involved. Such a recommendation is also backed by the Ramsar Convention (at least in its COP decisions) which encourages the broad involvement of local communities and other stakeholders in wetlands’ governance and management. As far as the Terraba-Sierpe wetlands are concerned, they are a state-governed protected area, as the SINAC is in charge of its management, but involvement of other stakeholders is limited.

With respect to its management, the new management plan of the wetlands has been approved by the regional council of ACOSA in 2010, but still needs the approval of the national council of SINAC. The management plan sets up a zoning of the wetlands according to the different uses and conservation objectives (4 zones inside the wetlands and a buffer zone) which is particularly relevant in case of protected areas of multiple-uses.¹⁸¹ This zoning will help clarify the allocation of rights and prohibitions in the wetlands.

The wetlands are not integrated in the overall management of the Terraba-Sierpe river basin. Even the new management plan does not include the wetlands into the broader catchment framework, or at least in the Osa region, despite being suggested since 1998 by the manager of the wetlands.¹⁸² As we will see in the last section of this report, such an integration is all the more relevant taking into account the many

¹⁷⁸ Decreto Ejecutivo No. 22993-MIRENEM del 21 Febrero 1994 Crea Humedal Nacional Terraba Sierpe.

¹⁷⁹ Nigel Dudley (ed), *Guidelines for Applying Protected Area Management Categories* (IUCN 2008), p.22

¹⁸⁰ Id. p.23

¹⁸¹ Barbara Lausche, *Guidelines for Protected Areas legislation*. IUCN (2011), p.208

¹⁸² Programa Ambiental Regional para Centro America, *Un plan para el manejo sostenido del humedal Sierpe-Terraba* (1998), p.11

threats identified in the Térraba-Sierpe river basin (e.g.: chemicals used in agriculture; sedimentation; etc.) and the potential ones like the El Diquís hydropower project.

Actually, a final mention shall be made with respect to El Diquís hydropower project, even if at first sight, its potential location seems far from the wetlands. Indeed, the MINAET guidelines on management plans clearly call for a thorough analysis of the regional context in which the protected area evolves, including the river catchment. They should also take into account development projects and other factors that can affect their management.¹⁸³ However, it is one thing to analyse this broader context, and it is another thing to draw all the conclusions within the drafting of the management plan.

So, regarding the consequences of the expected El Diquís dam, one might be aware that without the full environmental impact assessment, it might be difficult and premature to assess/ ascertain the direct or indirect consequences of the dam on the wetlands ecosystems downstream. In May 2009, ICE considered that 1800 hectares of the wetlands would be affected by ecological changes.¹⁸⁴ Several months later, it mentioned on its website that the area to be affected would be determined by the environmental impact evaluation. Indeed, the environmental impact assessment should help identify the area of the wetlands that will be impacted. The legal framework is rather clear with respect to wetlands; the organic law on the environment specifically requests an impact assessment of works and activities affecting wetlands,¹⁸⁵ such a requirement is also supported by a resolution of the conference of the Parties to the Ramsar Convention.¹⁸⁶

4.6 Conclusion

From this legal and policy overview, several barriers to their effective implementation have been identified. There is a clear inconsistency between environmental priorities and other matters especially economic development. Inconsistencies are spurred by contradictory political commitments, incoherent institutional structure and the lack of long-term policy guidance. Such inconsistencies are also embodied in the legal framework that is outdated in certain areas, resulting in contradictory implementation. Moreover, even if judicial decisions acknowledge incompliance or enforcement failure, they suffer from a lack of respect from the administration concerned.

¹⁸³ MINAE-SINAC (2004) *Guía para la formulación y ejecución de planes de manejo de las áreas silvestres protegidas*, point 6.1.2 MINAE-SINAC (2004) *Guía para la formulación y ejecución de planes de manejo de las áreas silvestres protegidas*.

¹⁸⁴ ICE, *Una aproximación a las implicaciones sociales del Proyecto Hidroeléctrico El Diquís* (2009)

¹⁸⁵ Article 43

¹⁸⁶ Resolution VII.16: The Ramsar Convention and impact assessment: strategic, environmental and social' (7th Meeting of the Conference of the Contracting Parties to the Convention on Wetlands (Ramsar, Iran, 1971)

With respect to environmental law, the fuzzy allocation of responsibilities between national administration and local authorities in charge of land use planning and access to natural resources has created many conflicts especially in the coastal zone area. Despite being a critical tool to prevent environmental damage, the environmental impact assessment process pays the price for the conflicting interests among environment and development. Indeed, both El Diquís hydropower project and pineapple expansion well epitomise the difficulties to achieve the balance between a meaningful respect of environmental and human rights and the national economic priorities of a country. Finally, the fragile wetlands ecosystem downstream not only suffers from its own conservation failures, but also from all the above implementation and enforcement issues experienced upstream.

5. Strategies for overcoming barriers to implementation

5.1 Introduction

The previous chapters underlined the many issues facing the Térraba-Sierpe river basin. Threats to its conservation can be pinpointed in the different levels of the basin: from the upper part with the increasing exploitation of pineapples, to the lower part with the human exploitation of the wetlands or the likely effects of the El Diquís hydropower dam. Moreover, the growing rise of real estate development in the Fila Costeña not only threatens the forest and water ecosystems, but also the marine ecosystem.

Implementation barriers can either be general or very specific. But what needs to be kept in mind is that the case-study area is a river basin where these issues interact and impact directly or indirectly. Therefore, the lack of integration between different interactions can also be considered as a major barrier to the implementation of the sustainable management and conservation of the river basin.

A way to tackle the different implementation barriers is to view the river basin as the focal point for co-ordinated governance arrangements. The question therefore becomes to what extent an Integrated Water Resource Management (IWRM), and specifically an integrated river basin management (IRBM) framework would support conservation and sustainable management of the Térraba-Sierpe river basin? This approach does not intend to provide answers to the different issues facing the basin, which also require specific regulations, but aims at enhancing the consistency and thus the improvements of tackling the different issues.

5.2 The international rationale for an integrated river basin management approach

On the international level, IWRM has been acknowledged as the major tool to manage water resources, even if some authors question its “hegemonic” status.¹⁸⁷ Chapter 18 of the Agenda 21 has been one of the main starting points to advocate integrated water resources management, along with Chapter 17 focusing on the integrated coastal zone management; the Johannesburg plan of 2002 also reiterates the need to implement an IWRM based on river’s catchments (point 26). Despite being too often taken for granted, the integrated management of resources can prove to be an effective way to counter the drawbacks of sectoral management of environmental resources.

IWRM can be defined as: “a process which promotes the coordinated development and management of water, land and related resources, in order to maximize the

¹⁸⁷Jeroen Warner, Philippus Wester and Alex Bolding, ‘Going with the flow: river basins as the natural units for water management?’ 10 *Water Policy* (2008), p.121

resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems.”¹⁸⁸

The river basin is the most suitable geographical and hydrological unit to implement an IWRM as underlined by many international and regional documents (such as The European Water Framework directive). “A basin-level perspective enables integration of downstream and upstream issues, quantity and quality, surface water and groundwater, and land use and water resources in a practical manner”.¹⁸⁹

IWRM is also backed up by several environmental multilateral agreements such as the Ramsar Convention or the CBD. The Ramsar Convention does not call for the integration of wetlands into other sectoral plan or programmes. Nevertheless, several COP decisions support the need to integrate wetlands into river basin management¹⁹⁰ and “to ensure that coastal wetlands and their values and functions for human well-being, [...] and their importance for the conservation of biological diversity, are fully recognized in planning and decision-making in the coastal zone, including ICZM”.¹⁹¹

The CBD guidelines on inland water biological diversity set as an objective for the Parties to “[a]dopt integrated land and catchment/watershed/river basin management approaches that incorporate the ecosystem approach, and the conservation and sustainable use of inland water ecosystems, including transboundary catchments, watersheds and river basins”.¹⁹²

How can an integrated river basin management be supported in the context of the Térraba-Sierpe? Are there already frameworks that could support such an approach, or previous examples that could be strengthened or reshaped?

5.3 The current legal, policy and institutional framework applying to the Térraba-Sierpe river basin: assets and obstacles to an integrated river basin management

Integrated management of water resources is not new to Costa Rica. Several legal and policy documents include to some extent the concept in their provisions and

¹⁸⁸Global Water Partnership. Technical Advisory Committee, *Integrated Water Resources Management* (TAC background Paper, 2000), p.22

¹⁸⁹ UNESCO, *IWRM Guidelines at River Basin Level. Part 1. Principles* (2008), p.4

¹⁹⁰ ‘Resolution VII.18: Guidelines for integrating wetland conservation and wise use into river basin management’ (7th Meeting of the Conference of the Contracting Parties to the Convention on Wetlands (Ramsar, Iran, 1971))

¹⁹¹ Article 14, ‘Resolution VIII.4: Principles and guidelines for incorporating wetland issues into Integrated Coastal Zone Management (ICZM)’ (8th Meeting of the COP to the Convention on Wetlands)

¹⁹² Goal 1.1, Objective a, ‘Decision VII/4 Biological Diversity of Inland Water Ecosystems, Annex Revised Programme of work on Inland Water Biological Diversity,’ (7th meeting of the COP to the Convention on Biological Diversity)

requirements. Moreover, the river basin is regarded as the main geographical unit to manage resources by several documents.

Principle 7 of the national policy on water resources management of 2002¹⁹³ states that “*Water resources management shall be integrated, decentralised and participatory based on the hydrological basin as the planning and management unit*”. However, it is not until 2008, that the country adopted policy documents on integrated water resources management. Hence, the national policy on integrated water management¹⁹⁴ was approved in 2008. The same year, the national strategy for integrated management of marine and coastal resources was adopted.¹⁹⁵ But no conceptual link is made between those two policy documents, despite clear linkages between river basin and coastal ecosystems.¹⁹⁶

Some provisions related to integrated management of resources can be found in Costa Rican laws. The law on land conservation sets as one of its objectives: “*to promote the land management along with the conservation and recovery in a sustainable and integrate way with the other natural resources*”.¹⁹⁷ Its decree further defines the basin as: “*the geographical area which surface waters flow into a drainage system or a common hydrological network converging in a main river bed, which can flow into a principal river, lake, reservoir, marshes or directly into the sea. It is delimited by the watershed and can make up a unit for the integral planning of socioeconomic development and the use and conservation of water resources, soils, flora and fauna.*”¹⁹⁸ But some confusion arises as the decree considers later that the basin is used as sectoral planning unit in all public and private plans, programs, projects so as to support an adequate land use and management.¹⁹⁹ Hence the basin is considered as an appropriate geographical unit but it should not be the unit for laying over sectoral planning.

But IWRM and IRBM are lagging behind, mainly because the attempts to reform the old water law into a more integrated water resources law remain ongoing. On the policy level, the few documents approved on the national level are quite recent such as the 2008 National policy on integrated water resources management and it is too early to assess its implementation. Moreover, water is managed on the national level

¹⁹³ Decreto Ejecutivo No.30480-MINAE del 5 Junio 2002 Determina los principios que regirán la política nacional en materia de gestión de los recursos hídricos y que deberán ser incorporados, en los planes de trabajo de las instituciones públicas relevantes.

¹⁹⁴ MINAET, *Plan nacional de gestión integrada del recurso hídrico* (2008)

¹⁹⁵ Comisión interinstitucional de la zona económica exclusiva de Costa Rica, *Estrategia nacional para la gestión integral de los recursos marinos y costeros de costa Rica* (2008)

¹⁹⁶ UNEP/MAP/PAP, *Conceptual Framework and Planning Guidelines for Integrated Coastal Area and River Basin Management* (1999), p.4

¹⁹⁷ Article 2.a, Ley de uso, manejo y conservación de suelos (1998)

¹⁹⁸ Article 6, Decreto Ejecutivo No.29375-MAG-MINAE-S-HACIENDA-MOPT del 8 Agosto 2000 Reglamento a la Ley de Uso, Manejo y Conservacion de Suelos.

¹⁹⁹ Article 71, id.

and is divided among different ministries and bodies. As seen previously, wetlands are managed by MINAET, regulations of pesticides by the Ministry of agriculture, land use by the municipalities, and so forth.

From an institutional standpoint, attempts to set up “*Comisiones de cuencas*” (basin commissions) were made as “*informal mechanisms of coordination and participation in decision-making process*”.²⁰⁰ The first Commission of a river basin was created in 1994 with the Rio de Tárcoles, in the south of San José.²⁰¹ Despite their loopholes, these Basin commissions represent an attempt to institutionalise integrated water management.²⁰²

5.4 Proposals to support an IRBM (ICARM)

Against this current legal and policy background, what would be the necessary requirements to set up an integrated river basin management in Costa Rica, and especially in the case-study area? It is commonly acknowledged that implementation of IWRM covers three elements: an enabling environment, institutional roles and management instruments.²⁰³ These three elements will be analysed subsequently, but an introductory section will first help identify the most appropriate territory to implement an IWRM in the Térraba-Sierpe river basin.

5.4.1 Territorial integration

By wondering about territorial integration, one key issue is to think about the most accurate spatial scale of conservation and management of the river basin. Shall it be limited to the main river catchment, shall it include tributaries, and shall it encompass the coastal area and even the marine area? Indeed, what should be the most relevant boundaries landward and seaward to manage and conserve the Térraba-Sierpe basin in a sustainable way? Focusing on the ecosystem, these boundaries will not automatically match the administrative boundaries.

An IRBM can be the most suitable option for the conservation and management of the Térraba-Sierpe river catchment. Moreover, the opportunity to extend IRBM to an integrated coastal area and river basin management (ICARBM) should also be

²⁰⁰ Jorge Mora Portuguez, ‘Costa Rica’ in Grethel Aguilar and Alejandro Iza (eds), *Gobernanza del Agua en Mesoamérica: Dimensión Ambiental* (UICN 2009), p.3

²⁰¹ W. Blomquist and others, ‘Costa Rica: Tárcoles Basin’ in Karin E. Kemper, Ariel Dinar and William Blomquist (eds), *Integrated River Basin Management through Decentralization* (Springer 2007)

²⁰² Alejandra Aguilar Schramm, María Salvadora Jiménez Rojas and Mariela Cruz Álvarez, *Manual de regulación jurídica para la gestión del recurso hídrico en Costa Rica* (CEDARENA 2001), p.81

²⁰³ Global Water Partnership. Technical Advisory Committee, *Integrated Water Resources Management* (TAC background Paper, 2000), p.30

seriously considered as “*in this catchment, the environmental threats can endanger potential marine and coastal ecosystems of high ecological value*”.²⁰⁴

Indeed, the coastal area including part of the marine area should be fully integrated in the management of the river basin, as “[t]he coastal area is an essential component of the river basin. The two areas are linked through a number of natural and socio-economic processes”²⁰⁵ such as cycle of water, sediment transport, human activities (either positive or negative). As an example, in the case of the Ballena Marine Park, phosphate is carried by the T rraba river into the park along with sediments which smother corals.²⁰⁶

Ecosystems are interconnected and all the waste and chemicals dumped along the basin end up into the wetlands and the sea. From the wetlands standpoint, it seems obvious that their integration into a broader framework of the river basin is necessary as underscored by many documents of the Ramsar Convention. Wetlands are not autonomous entities but “because of their ecological and hydrological functions, are an intrinsic part of the overall water resource system and should be managed as a component of such, as well as being rich centres of biological diversity and related productivity; and contribute as such to the economic, ecological and social security of local people and other major groups”.²⁰⁷ Therefore the T rraba-Sierpe wetlands should be integrated into the broader context of the river catchment including both R o Grande and R o Sierpe.²⁰⁸ But the new management plan of the wetlands does not integrate its management into the broader context of the river basin even if the preliminary diagnostic has identified many threats originating from the basin.²⁰⁹

Regarding integration of marine protected areas (MPAs), as underlined by Cicin, “[c]oastal and ocean governance systems are often designed without consideration of MPAs. On the other hand, MPAs are often designed and implemented without recognition of the larger system within which they are located.”²¹⁰ The integration of

²⁰⁴ Programa Estado de la Naci n, *Estado de la Naci n, Cap tulo 4 Armon a con la naturaleza* (2007), p.275

²⁰⁵ UNEP/MAP/PAP, *Conceptual Framework and Planning Guidelines for Integrated Coastal Area and River Basin Management* (1999), p. vii

²⁰⁶ Claudine Sierra, Edgar Castillo and Stanley Arguedas, *Documento de trabajo para el plan de manejo del Parque Nacional Marino Ballena. Diagn sticos biof sico, social, econ mico, productivo y an lisis institucional* (Serie documental: PMACOSA-N 10, 2006), p.21

²⁰⁷ Preamble, ‘Resolution VII.18: Guidelines for integrating wetland conservation and wise use into river basin management’ (7th Meeting of the Conference of the Contracting Parties to the Convention on Wetlands (Ramsar, Iran, 1971))

²⁰⁸ *Interview with Jaimie Gonzalez, Terraba-Sierpe Wetlands manager* (2010)

²⁰⁹ Claudine Sierra, Edgar Castillo and Stanley Arguedas, *Documento de trabajo para el plan de manejo del Parque Nacional Marino Ballena. Diagn sticos biof sico, social, econ mico, productivo y an lisis institucional* (Serie documental: PMACOSA-N 10, 2006), p.36

²¹⁰ Biliana Cicin-Sain and Stefano Belfiore, ‘Linking marine protected areas to integrated coastal and ocean management: A review of theory and practice’ *Ocean and Coastal Management* (2005), p.848

the Ballena Marine Park can also be considered, within a potential integral planning of the Térraba-Sierpe basin.

5.4.2 An enabling environment

“The enabling environment is basically national, provincial or local policies and the legislation that constitutes the “rules of the game” and enable all stakeholders to play their respective roles in the development and management of water resources; and the fora and mechanisms, including information and capacity building, created to establish these “rules of the game” and to facilitate and exercise stakeholder participation.”²¹¹

An integrated water law to back up IWRM

As already mentioned, the attempts to pass a new water law have failed so far, despite its utmost relevance to back IWRM and improve the water resources conservation, especially by streamlining the fragmented competencies over water.²¹² Such a law should still be encouraged.

Improving participation towards an effective IWRM

A strong case should be made to participation and the subsidiarity principle²¹³ in implementing an IRBM.²¹⁴ Participation can cover two aspects: on the one hand, participation in specific river basin institutions, and on the other hand, participation in different environmental, land-use decision-making processes. Subsidiarity will entail a more decentralised decision-making process to the lowest level.

In the specific field of the environment, the active and organised public participation in decision-making and actions is required by the law on the environment and its implementation is incumbent upon the State and the municipalities. This participation aims at protecting and improving the environment.²¹⁵ Regarding land use planning, the environmental law requires that municipalities, the State and other entities, promote the active participation of people and civil society for the elaboration and implementation of land use planning.²¹⁶

May A. Massoud, Mark D. Scrimshaw and John N. Lester, ‘Integrated coastal zone and river basin management: a review of the literature, concepts and trends for decision makers’ 6 *Water Policy* (2004), pp.519-548

²¹¹Global Water Partnership. Technical Advisory Committee, *Integrated Water Resources Management* (TAC background Paper, 2000), p.33

²¹² Jorge Mora Portuguese, ‘Costa Rica’ in Grethel Aguilar and Alejandro Iza (eds), *Gobernanza del Agua en Mesoamérica: Dimensión Ambiental* (UICN 2009), p.25

²¹³ Global Water Partnership. Technical Advisory Committee, *op.cit.*, p.33

²¹⁴ Frank G.W. Jaspers, ‘Institutional arrangements for integrated river basin management’ 5 *Water Policy* 77 (2003), p.83-84

²¹⁵ Article 6, Ley Orgánica del Ambiente (1995)

²¹⁶ Article 29.a, *id.*

As far as the participation in the PROTERRABA commission is concerned, the involvement of a wide range of stakeholders is required during working sessions of the Commission, at least on the paper, but indeed, it does not seem to be the case, people being even unaware of its existence.²¹⁷ The new National Development Plan also mentioned that only governmental institutions and the UNA took part in the commission,²¹⁸ calling for a strengthening of the institution without specifying how. Therefore, a strong involvement of different stakeholders could support its work (along with new competencies).

Last but not least, Costa Rican people can play an effective role in promoting IWRM on the national level, through their right of referendum. Pursuant to article 105 of the Constitution, “*The People can also exercise this [legislative] power by the referendum to approve or repeal laws and partial reforms of the Constitution*”.²¹⁹ This new provision provides for three ways of initiating a referendum. The initiative can stem from the Legislative assembly, if approved by two thirds of its members; it can also come from the executive power with the approval of the absolute majority of the legislative assembly. The last way of initiating a referendum is the most successful means of direct democracy, as 5% of the citizens entitled to vote can require a referendum. This right of people’s initiative has been recently exercised with respect to the draft law on integrated management of water resources. Facing a major political stalemate, civil society decided to put forward this project to the National Assembly,²²⁰ alas, unsuccessfully.

5.4.3 Institutional integration

Regarding institutional integration, two parallel actions are required: on the first hand, an improvement of the coordination mechanisms²²¹ so as to avoid inconsistencies and overlapping of competencies within the basin; on the other hand, the creation of a basin commission (within the case-study area, a modification of the PROTERRABA commission is likely to be more relevant) with an effective role.

From institutional fragmentation to institutional integration

²¹⁷ The Commission itself calls for making people more aware of its work, LiveDiverse, *Report from 1st Stakeholder Fieldtrips: Costa Rica, 21st-28th November 2009* (2009)

²¹⁸ p Ministerio de Planificación Nacional y Política Económica, *Plan Nacional de Desarrollo 2011-2014*, “*María Teresa Obregón Zamora*” (2010), .210

²¹⁹ Except in the fields of tax, budgetary, financial matters or administrative matters. The referendum process and the specific people’s initiative have been both specified in subsequent laws: Ley de iniciativa popular (2006), Ley sobre Regulación del Referéndum (2006)

²²⁰ see www. <http://hidrico.sociedadhumana.com> , CEDARANA

²²¹ Global Water Partnership. Technical Advisory Committee, *Integrated Water Resources Management* (TAC background Paper, 2000), p.45

Different institutions act in the river basin, from the MINAET-SINAC in charge of the different protected areas, to the municipalities in charge of granting land-use certificates, let alone the Ministry of agriculture in charge of monitoring chemicals' use.

Water conservation and management is fragmented among several entities. Pursuant to article 22 of the biodiversity law, the SINAC is in charge of the protection and conservation of the use of catchments and water systems, but according to the land law, the Ministry of agriculture is in charge of land management planning in catchments. As mentioned above, the draft water law could provide a solution to streamline the competencies over water issues.

Water management and conservation is rather a centralised competency²²² and it should be balanced with the subsidiarity principle, as some water concerns might be better managed on the local level, but it seems that “[t]here has been no overall, nationwide effort to decentralize water resource management to the basin level in Costa Rica”.²²³

A river basin organization

In Costa Rica, the existing basin commissions lack legal powers, they do not have any decision-making competencies; most of them are created by decrees, with the exception of the Commission of the river Reventazón.²²⁴ This Commission, created by law, has its own legal personality but is attached to the Ministry of the environment.

In the specific case of the Térraba-Sierpe, a commission PROTERRABA was officially set up in 2009 after a 10 years pre-commission existence.²²⁵ The main objective of the commission is to promote a sustainable and integral development of the Térraba river basin.²²⁶ At present, this commission only has an advisory role and does not have a real coordination or planning role in the basin. For the time being, the PROTERRABA is not a key actor in the management and conservation of the basin. Its role and even existence are not well-known among the different stakeholders of the basin. It does not involve all the necessary representative stakeholders of the basin.

²²² Jorge Mora Portuguez, ‘Costa Rica’ in Grethel Aguilar and Alejandro Iza (eds), *Gobernanza del Agua en Mesoamérica: Dimensión Ambiental* (UICN 2009), p.23

²²³ W. Blomquist and others, ‘Costa Rica: Tárcoles Basin’ in Karin E. Kemper, Ariel Dinar and William Blomquist (eds), *Integrated River Basin Management through Decentralization* (Springer 2007), p.153

²²⁴ Alejandra Aguilar Schramm, María Salvadora Jiménez Rojas and Mariela Cruz Álvarez, *Manual de regulación jurídica para la gestión del recurso hídrico en Costa Rica* (CEDARENA 2001), p.80

²²⁵ Decreto No.34945-MINAET del 1 Octubre 2008 Crea la Comisión Técnica para el Manejo y Desarrollo Integral de la Cuenca del Río Grande de Térraba (PROTÉRRABA).

²²⁶ Article 4, id.

To what extent would the PROTERRABA play an active role in the management and conservation of the basin? Its mandate, structure, status should be strengthened and modified so as it plays an effective role within the basin, recent proposal are going in this direction. Hence, within the framework of the new National Development Plan, one of the objectives in the Brunca region is to “*strengthen the integrated water resources management and biodiversity in harmony with the development of energy and telecommunication infrastructure*,”²²⁷ especially by strengthening the PROTERRABA commission through three initiatives to be defined. The SINAC and the ICE (through the El Diquís project) are called to play a major role.

5.4.4 Management instruments

The choice of the more suitable territorial area along with a clear coordination of competencies between different institutions and a basin commission, are nevertheless not sufficient to implement an effective integrated water resources management.

New planning tools might be required such as a strategy clearly identifying the vision and objectives of the integrated river basin management on the short and on the long term along with a basin action plan.²²⁸ Drawing from the guidelines produced by the Global Water Partnership, we might be able to identify what should encompass a long-term strategy for the great the Térraba-Sierpe catchment (including coastal area) and a basin action plan. The scenarios elaborated under the LiveDiverse project could provide relevant inputs for such documents. The basin plan for the Térraba-Sierpe is not a new idea and early signs are to be found in the decree of creation of the PROTERRABA Commission. Indeed, the PROTERRABA commission has to support the elaboration of such a plan called “*Land use and land use recovery planning of the catchment addressing contamination control whatever its forms, land use planning, urban land use planning, collection, transport and final treatment of solid waste, rational use of water, environmental education programs, prevention and mitigation of potential natural disasters and protection and conservation of natural resources*”.²²⁹ However, not much progress has been made so far.

One of the key issues facing a river basin, is the numerous and different sources of environmental threats, which can accumulate along the river. In order to manage, prevent and correct their overall impacts, specific tools need to be implemented.

²²⁷ Ministerio de Planificación Nacional y Política Económica, *Plan Nacional de Desarrollo 2011-2014*, “*María Teresa Obregón Zamora*” (2010), p.222

²²⁸ Global Water Partnership and International Network of Basin Organizations, *A Handbook for Integrated Water Resources Management in Basins* (Global Water Partnership, International Network of Basin Organizations, 2009)

²²⁹ Article 5.c, Decreto No.34945-MINAET del 1 Octubre 2008 Crea la Comisión Técnica para el Manejo y Desarrollo Integral de la Cuenca del Río Grande de Térraba (PROTÉRRABA).

One of the major tools is the environmental impact evaluation. Two evaluations are relevant in the context of integrated water resources management: on the one hand, cumulative impact evaluation which takes into account cumulative effects of a project and on the other hand strategic impact assessments. Both evaluations are provided for in the Costa Rican environmental legislation, and can prove to be meaningful tool to assess the impacts of the El Diquís hydropower project.

Article 3.36 of the decree on environmental impact evaluation, defines the evaluation of cumulative impacts: “*Scientific and technical process of analysis and evaluation of cumulative environmental changes arising from the systematic addition of the effects of activities, works and projects under development in a delimited geographical area, such as a catchment or a subcatchment*”. Moreover, article 68 focuses on the evaluation of cumulative impacts and specifically advocates its use for catchments and tributaries, with an aim of incorporating this information into land use plan, natural resources plan and agriculture plans. Article 69 follows on stating the aims of the cumulative impact evaluation: these evaluations should help identify if areas are exceeding their environmental capacity and support decision-making about the restoration of their ecological balance. This tool is all the more relevant to assess cumulative effects in the lower part of the basin (wetlands, coast), and should prove to be an effective instrument to assess the impacts of the El Diquís hydropower project in these lower areas.

In Costa Rica, strategic environmental impact assessments apply to “plans, programs and policy of national, regional and local development” taking place for in municipalities, catchment or specific region, and aimed at planning land use or the development of infrastructures such as energy project or the use of natural resources (energy, water, etc.). From this above definition, a SEIA would be possible in the case of a hydropower project to assess its impact on an overall river catchment. Therefore, one might wonder about its relevance in the case of El Diquís hydropower project, as suggested by some experts.²³⁰ The benefit of SEIA is to put the project into a broader context, not only the river catchment but also the region.

5.5 Conclusions

IWRM and an IRBM/ICRBM prove to be all the more relevant in the context of the Térraba-Sierpe river basin, as a variety of factors are threatening its sustainable use and conservation up to the coastal area. The background to support IWRM and IRBM is still suffering from national substantial and institutional shortcomings (e.g.: fragmentation of competencies, lack of renewed water legal framework tailored to IWRM, etc.), but on the river basin level, the Proterrabá commission could provide impetus to initiate an effective integrated river basin management, provided that it

²³⁰ Ernesto Ramírez, ‘PHED Diquís requiere de una evaluación ambiental estratégica, advierte experto’ *Semanario Universidad* (18 Octubre 2010)

benefits from robust decision-making competencies and is a true participatory mechanism to become a key actor in the basin.

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