

**REPORT ON THE REACTIVE MONITORING MISSION TO TALAMANCA RANGE LA AMISTAD
RESERVES/LA AMISTAD NATIONAL PARK (COSTA RICA/PANAMA)**

11 TO 15 JANUARY 2016



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ACKNOWLEDGEMENTS

The mission would like to thank the government of Panama and, in particular, the Ministry of the Environment for all the support they provided during the mission in Panama. Also, the government of Costa Rica, in particular, the Ministry of the Environment and Energy, is acknowledged for accompanying this mission and providing all information relevant to the Costa Rican portion of the World Heritage Site.

Likewise, the mission would like to acknowledge all the persons that have provided valuable information and opinions. Interaction took place with various farmer and indigenous communities, government agencies, NGOs and private companies, in various settings. We are deeply indebted to all these people for providing their points of view.

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EXECUTIVE SUMMARY AND LIST OF RECOMMENDATIONS

The objectives of the reactive monitoring mission to the Talamanca Range La Amistad Reserves /La Amistad National Park which took place from 10 to 15 January 2016, were to evaluate the progress achieved by the States Parties of Panama and Costa Rica with the development of the Strategic Environmental Assessment (SEA) for the property and to provide necessary technical advice in this regard, and to assess the effectiveness of the measures developed for the Bonyic and CHAN-75 hydropower projects. The mission spoke to representatives of governmental agencies of different relevant sectors, indigenous peoples' organizations, farmers, national and local NGO's and agencies/companies in charge of developing hydropower plants. This was done during field visits to areas within and surrounding the property in Panama and in Panama City. Although it was agreed that the mission would only visit Panama, representatives of Costa Rica were present during the mission.

The mission observed that some localized irreversible damage has occurred, especially to freshwater biodiversity on the Panama side of the property. Monitoring studies, conducted to date, have not provided evidence of species disappearance upstream from the dam at this stage; however, increased average size and less abundance of juveniles of certain species, less abundance of catadromic fish and crustacean species indicate effects of limited migration possibilities. The previous reactive monitoring mission (2013) concluded that development of new infrastructure and large-scale industrial projects (including new hydropower projects, any road crossing the property and mining within the property or in the buffer zone) would represent ascertained danger and imply that the property would meet the conditions for inscription on the List of World Heritage in Danger. In its Decision 39COM7B.29, the World Heritage Committee noted that "any development of new hydropower projects prior to the finalization and adequate review of the SEA would lead to the inscription of the property on the List of World Heritage in Danger". The current preparation for the construction of a new hydropower dam on the Changuinola River (CHAN140), close to the property's boundaries, clearly represents such development of hydropower projects. In addition to direct impacts associated with the construction of a new dam, the impact of damming and flooding of an additional area of the Changuinola River will also have cumulative impacts on biodiversity. Also, in the present situation of on-going social conflicts related to the existing and planned hydropower projects, new developments include a serious risk of accumulated social impacts around the property.

The mission notes that the response to the decisions made by the World Heritage Committee (WHC) subsequent to the previous reactive monitoring mission has been slow. There is specific concern over the fact that hydropower development has continued while no comprehensive SEA has been conducted. The mission welcomes the initiative by the State Party of Panama to commence preparation of the SEA in 2016, which has a good initial design, targets the Outstanding Universal Value (OUV) of the property and is facilitated by a team of internationally renowned experts. However, the decision to build a new dam on the Changuinola River (CHAN140) has already been taken, and its construction is expected to begin in mid-2016. The Environmental Impact Assessment (EIA) of the CHAN140 project has been approved by the Ministry of the Environment, although it did not fully follow World Heritage standards (outlined in IUCN's World Heritage Advice Note on Environmental Assessment). Social and environmental compensation mechanisms have already been put in place, including resettlement arrangements. Because of this timing and on the basis of previous examples of ineffective follow-up to World Heritage Committee recommendations and requests, the mission considers that it is uncertain that the results of the SEA will be included in the design, implementation and operation of this new hydropower project, and recommends that the implementation of the CHAN 140 project should be put on hold to ensure that the findings of the SEA can adequately be taken into account. The State Party of Panama will need to put adequate measures in place to ensure the findings of the SEA will be taken into account in any future large-scale development projects in or around the property.

Due to the fact that hydropower project development continued, with another dam (CHAN140) having been approved, while no comprehensive SEA has been conducted, the mission concludes that the current and potential cumulative impacts of on-going development of hydroelectric power plants represent both an ascertained and a potential danger, respectively, to the Outstanding Universal Value of the property in line with paragraph 180 of the *Operational Guidelines*, and therefore considers that the property meets the criteria for inscription on the List of World Heritage in Danger.

The mission is also concerned that the management of the different protected areas that make up the property has not improved in recent years: staff numbers and budgets continue to be deficient, management plans and complementary plans (communication, participation, tourism) are out-dated or non-existing and revision processes take several years. In addition, there is a continued lack of updated data on land use close to and within the property, in spite of repeated requests in WHC decisions in this regard. This lack of data makes it difficult to either confirm or disprove recurrent claims of civil society organizations and local inhabitants of agricultural encroachment within the property.

In addition to its recommendation to inscribe the property on the List of World Heritage in Danger, the mission recommends that the following Corrective Measures should be implemented by the State Party of Panama before the 41st session of the World Heritage Committee in 2017:

1. In consultation with the State Party of Costa Rica, finalize the Strategic Environmental Assessment (SEA) for the property, in line with national procedural standards and international best practice, including the IUCN's World Heritage Advice Note on Environmental Assessment, and guaranteeing the participation of indigenous communities having (recognized or customary) territorial rights in and around the property.
2. Ensure, through the development of appropriate mechanisms, that the results of the Strategic Environmental Assessment are used to guide the planning and operation of any new large-scale infrastructure development project in and around the property and halt any ongoing projects, including the recently approved CHAN 140 hydropower project, to allow the results of the SEA to be considered in these projects

The mission also recommends that the States Parties of Panama and Costa Rica:

3. Implement other pending recommendations of the 2013 IUCN Reactive Monitoring mission:
 - a. guarantee the long term integrity of complete unaffected watersheds, which form part of the property at altitudes below 1,200 metres, to preserve aquatic ecosystems therein
 - b. ensure that the results of the developed monitoring programmes in the Changuinola and Bonyic watersheds guide adequate measures to minimize biodiversity loss caused by the constructed dams.
4. Compile field data on the present state of human activities, including livestock grazing and cultivation of illegal crops, within and directly adjacent to the property, including number of hectares affected, number of families, heads of cattle and cattle trails/footpaths.
5. Finalize the elaboration and updating process of the management plans of the different protected areas that constitute the property and harmonize them within the framework of one overarching management approach.
6. Strengthen the capacity to apply effective control of the property through increasing the number of park staff, satisfying minimum needs for budgets and equipment and remove administrative barriers for bilateral collaboration in management operations.

LIST OF ABBREVIATIONS

ACLA-C	La Amistad-Caribbean Conservation Area (Costa Rica)
ACLA-P	La Amistad-Pacific Conservation Area (Costa Rica)
ANAM	National Environmental Authority (Panama)
CCAD	Central American Commission for Environment and Development
CHAN75	Changuinola 75 metres above sea level (existing hydropower dam in Panama)
CHAN140	Changuinola 140 metres above sea level (hydropower dam under construction)
EGESA	Electricity Generation Company (Panamá; <i>Empresa de Generación Eléctrica S.A.</i>)
EIA	Environmental Impact Assessment
FPIC	Free and Prior Informed Consent ()
ICE	Costa Rican governmental energy institute,
IUCN	International Union for the Conservation of Nature
MiAmbiente	Ministry of the Environment (Panama)
MINAE	Ministry of the Environment and Energy (Costa Rica)
NGO	Non Governmental Organization
OUV	Outstanding Universal Value
PILA	Parque Internacional La Amistad (Costa Rica, Panama).
SEA	Strategic Environmental Assessment
SINAC	National System of Conservation Areas (MINAE, Costa Rica)
UNESCO	United Nations Educational, Scientific and Cultural Organization
UTEB-PILA	Bi-National Executing Technical Unit for the management of La Amistad International Park
WCPA	World Commission on Protected Areas (IUCN),
WH	World Heritage
WHC	World Heritage Committee

1. BACKGROUND TO THE MISSION

Inscription history and concerns previously raised by the Committee

On 4 February 1982, the La Amistad National Park (Costa Rica) was created and in 1983, the Talamanca Range-La Amistad Reserves were inscribed on the World Heritage List at the 7th session of the World Heritage Committee (Florence, 1983). The property was extended in 1990 to include the La Amistad National Park of Panama. The property is inscribed under all four natural criteria, and covers a total of 570,045 ha (Annex V, Map 1).

In 2007 the World Heritage Committee received a request from a concerned third party to inscribe the property on the List of World Heritage in Danger on the basis of the possible risk from the construction of hydroelectric dams adjacent to and downstream of the property's boundaries, as well as poaching and encroachment by local farmers on both sides of the property's international boundary. The States Parties were requested to invite a World Heritage monitoring mission, which took place in February 2008. Subsequently, at its 32nd session (Quebec City, 2008) the Committee expressed concern about the longer term risk to the property posed by piecemeal development of hydroelectric dams, the absence of planned measures to mitigate the impact of these dams on freshwater biodiversity, associated migration of human populations to the property, significant incidence of cattle within the property, including the creation of illegal pastures within its boundaries, low presence of management authority, and the absence of an effective participatory management process.

At its 34th session (Brasilia, 2010) the Committee expressed concern about the loss of species caused by the dam construction in Panama, and the lack of effectiveness of mitigation measures. It requested the States Parties to consider the cumulative impacts of all proposed dams, including those under construction, on the Outstanding Universal Value (OUV) of the property through a transboundary strategic environmental assessment (SEA) and to halt all dam constructions until the SEA process is completed, in order to safeguard the property's values and integrity.

In 2011, a bi-national Executing Technical Unit for the management of La Amistad International Park (UTEB-PILA) was established and the requested SEA commissioned. Nevertheless, the Committee expressed its concern that the State Party of Panama had not halted dam construction and had not abandoned its plans to build a road traversing the property, and that both States Parties had not removed cattle from the area. It requested both States Parties to jointly invite a joint World Heritage Centre/IUCN reactive monitoring mission to the property (Decisions 35 COM 7B.29 and 36COM 7B.31), which took place in January 2013.

Subsequently, at its 37th session, in Phnom Penh (2013), the WHC expressed its regret that the State Party of Panama did not suspend the construction of the Bonyic dam until the SEA has been completed and its results considered, as requested in earlier decisions, noted with concern the irreversible damage to freshwater biodiversity in at least two watersheds (Changuinola and Bonyic) and the social conflicts related to the hydroelectric dams in both countries, which complicated governance of the wider region and multiplies the direct threats originating from the economic development projects. WHC requested the States Parties to implement all recommendations of the monitoring mission report, particularly to:

- a) implement mitigation measures of hydropower plants under construction and put in place an effective and long-term monitoring programme to measure the extent to which these measures are effective (Panama)
- b) not permit any further development of hydro-energy projects, mining or road construction within or directly adjacent to the property, particularly in neighbouring protected areas and indigenous territories,
- c) ensure that any further planned economic development that could potentially negatively affect the property be subjected to independent Environmental Impact Assessments (EIAs) that include a

specific assessment of impacts on the OUV of the property and counts with all elements of due process to achieve Free, Prior and Informed Consent by indigenous peoples having territorial rights in the affected lands,

- d) guarantee the long term integrity of complete unaffected watersheds (from source to sea), which form part of the property at altitudes below 1,200 metres, to preserve aquatic ecosystems therein,
- e) harmonize the management plans of the protected areas that constitute the property within the framework of one overarching management plan,
- f) compile and monitor field data on the present state of human activities, including intensity of cattle grazing and impact on OUV, extent of illicit crop cultivation within and directly adjacent to the property, including number of hectares affected, number of families making use of resources within the property, and nature and extent of overland pathways / trails present,
- g) continue to increase the number of park staff and include indigenous peoples and local farmers within park monitoring efforts to ensure integration of key stakeholders to the conservation agenda;

During its 38th session in 2014, WHC adopted two decisions, regarding clarifications of property boundaries 38.COM 8D and the adoption of retrospective statement of Outstanding Universal Value 38.COM 8E.

At its 39th session (Bonn, 2015) the WHC expressed its concern that a new hydropower project on the Changuinola river (Chan 140) was approved in 2013 which would result in further cumulative impacts on both aquatic and terrestrial fauna and implied risks of social conflicts with local communities. In decision **39.COM 7B.28**, the WHC urged the State Party of Panama not to resume this project, until:

- a) the SEA for the property has been completed to guide the review of the project,
- b) the project has been subject to an independent Environmental Impact Assessment, including a specific assessment of potential impacts on the OUV and
- c) a due process has been ensured to achieve Free, Prior and Informed Consent by indigenous communities having territorial rights in the affected lands.

WHC also requested the States Parties to implement all other recommendations of the 2013 IUCN Reactive Monitoring mission and invite a new mission before its 40th session in 2016. Because the latest WHC decision was primarily related to the Panamanian portion of the property, this mission only visited Panama but representatives of the State Party of Costa Rica accompanied the mission. The current document reports the findings of that mission, which took place from 10 to 15 January 2016.

Inscription criteria and World Heritage values

The property was inscribed under all four natural criteria: (vii), (viii), (ix), and (x). The justification for each criterion is shortly presented below, based on the Retrospective Statement of Outstanding Universal Value.

vii. To contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance;

The property harbours exceptionally beautiful mountain landscapes, with rugged terrain covered by vast forests. Within the region, the unusual high altitude grasslands are restricted to the property, allowing extraordinary panoramic views. The remarkable vestiges of Quaternary glaciation add to the particularity of the landscape through the cirques, shapes of valleys and glacial lakes. The Talamanca Range hosts countless rivers and creeks, some of them forming spectacular waterfalls. In addition to scenic values the Talamanca Mountains also have major spiritual value for local communities.

viii. To be outstanding examples representing major stages of the Earth's history, including the record of life, significant on-going geological processes in the development of landforms, or significant geomorphic or physiographic features;

The Talamanca Range is a very particular sample of the recent geological history of the Central American Isthmus, the relatively narrow strip of land connecting North and South America and separating the Pacific and Atlantic Oceans. The property shows impressive marks of Quaternary glacial activity, which has shaped glacial cirques, glacial lakes and deep, "U"-shaped valleys, which cannot be found anywhere else in Central America.

ix. To be outstanding examples representing significant on-going ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals;

As a large and mostly intact part of a geologically young land bridge, what is today the property is a meeting point of flora and fauna coming from North and South America. Many of the original species of the previously disconnected sub-continent reach their distribution boundaries in the Talamanca Mountains. Jointly with the climatic variation, the complex relief and huge altitudinal range and heterogeneity of many other environmental conditions this biogeographic location has resulted in a complex mosaic of ecosystems and habitats of global importance for conservation and science. The mosaic includes oak forests, different types of tropical rainforest, cloud forest and the rare high altitude bogs and grasslands. The latter, referred to as "Isthmus Paramo", is regionally restricted to the property and extremely rich in endemic species. Evolutionary processes triggered a speciation with extraordinary levels of endemism across numerous taxonomic groups. Many endemic species are restricted to single peaks of the mountain range. Ecologically, these peaks can be compared to islands of an archipelago.

x. To contain the most important and significant habitats for in-situ conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science or conservation.

The property boasts an exuberant biological diversity of both flora and fauna with an elevated degree of endemism across numerous taxonomic groups, often exceeding one third of the species within a taxonomic group. The Talamanca Mountains host some 10,000 flowering plants and over 4,000 non-vascular plants. There are approximately 1,000 fern species and about 900 species of lichen. Many of the region's large mammals have important populations within the property; overall 215 species of mammals have been recorded. The property hosts viable populations of many rare, vulnerable and endangered species, which include all cat species of Central America, the endangered species Ornate Spider Monkey and Central American Tapir, as well as the vulnerable Black-crowned Central American Squirrel Monkey. Some 600 bird species include the resplendent Quetzal and several species of rare raptors. Other vertebrates include some 250 species of reptiles and amphibians and remarkable 115 species of freshwater fish. Of the amphibians, six species are restricted to the Cordillera, such as the endangered Splendid Poison Frog.

Justification of the mission

The IUCN reactive monitoring mission to the Talamanca Range-La Amistad Reserves/La Amistad National Park (Costa Rica/Panama) was requested by the World Heritage Committee Decision **39 COM 7B.28** (See Annex I). The mission was requested to evaluate the progress achieved with the development of the Strategic Environmental Assessment (SEA) and to provide necessary technical advice in this regard and to assess the effectiveness of the measures developed for the Bonyic and CHAN-75 projects (Terms of reference for the mission – Annex II)

Mission activities

The mission team was composed of Robert Hofstede representing IUCN. The mission was accompanied by the Ambassador of Panama to UNESCO, the Director and staff of Biodiversity and Protected Areas of the Ministry of Environment of Panama (MiAmbiente). Staff from the Costa Rican National System of Conservation Areas (SINAC) of the Ministry of the Environment and Energy (MINAIE) also accompanied the mission during its entire duration. The mission met with the environmental authorities, technical experts from the relevant governmental agencies, local authorities and members of a large number of national and local non-governmental organizations and indigenous organizations (both formal traditional authorities as well as informally organized groups) in Panama. This was done during field visits to areas within and surrounding the property in Panama and in Panama city. Annex III presents the detailed mission agenda and Annex IV presents the names of all people who were present at the different meetings and workshops.

A group of NGOs based in the region and in Panama City met in Cerro Punta in December and elaborated a communication (signed by all assistants) expressing their worry on several developments around the Panama part of the property (Annex VI) which was provided to the mission.

Annex VIII includes an overview of all documents provided to the mission, including presentations and additional information provided by stakeholders.

2. NATIONAL POLICY FOR THE PRESERVATION AND MANAGEMENT OF THE WORLD HERITAGE PROPERTY

Legislation, institutional framework and management structure of protected areas in Costa Rica and Panama

Costa Rica

The body of Costa Rica's environmental legislation pertinent to the World Heritage Site includes the following instruments: L -7554: Ley Orgánica del Ambiente [Environmental Organic Law]; L -7317: Ley de Conservación de Vida Silvestre [Wildlife Conservation Law]; L-6084: Creación del Servicio de Parques Nacionales [National Park Service Creation Law]; L -7575: Ley Forestal [Forestry Law]; and L-7788: Ley de Biodiversidad [Biodiversity Law].

As far as the administration is concerned, the Biodiversity Law created the SINAC "as a decentralized and participative institutional management system, which integrates the competences in forestry, wildlife and protected areas issues, and MINAIE, in order to enact policies, and plan and execute processes aimed at achieving sustainability in the handling of natural resources in Costa Rica". With this scheme, the country is divided geographically into 11 Conservation Areas and the World Heritage Site is located in two of them: the La Amistad-Caribbean Conservation Area (ACLA-C) and the La Amistad-Pacific Conservation Area (ACLA-P). Thus, these two Conservation Areas are those responsible for coordinating efforts to protect and manage the World Heritage property. The Costa Rican part of the property covers an area of 199,147 ha, distributed in the following manner: ACLA-C 88% and ACLA-P 12%. It consists of seven protected areas, with a total of 39 park rangers. This amount is higher than in 2008, but has not increased since 2009 when the Costa Rican government decided to not fill vacant positions in government agencies.

Panama

The management of natural resources in Panama, and the World Heritage Site in particular, is based on the following legislation: L-41: Ley General del Ambiente (General Environmental Law); L-1: Ley Forestal (Forestry Law); and L-24: Ley de Vida Silvestre (Wildlife Law).

By Law N° 8 of 25 March of 2015, Panama created MiAmbiente, which took over the role of the National Environmental Authority (ANAM) as the governing body for natural resources. The Direction for Biodiversity and Protected areas both administers and regulates the National Protected Areas and Wildlife System (SINAP). The WH property in Panama comprises the Parque Internacional La Amistad (PILA). This park borders on Volcán Barú National Park (Chiriquí) and Palo Seco Forest Reserve (Bocas del Toro). PILA corresponds to the Regional Environmental Administrations of the Provinces of Bocas del Toro and Chiriquí, hence there is a separate administration for the Chiriquí (Pacific) side and the Bocas del Toro (Caribbean) side. In total, the Site has 12 civil servants, including the headquarters for the Pacific and the Caribbean areas and four field staff. This amount has remained stable during the last decade. In addition, a total of 12 rangers are provided by the companies that own the two hydropower dams, which are formally appointed to the Palo Seco Forest Reserve adjacent to the property, but also provide surveillance services to PILA.

The department of Environmental Impact Assessment (within MiAmbiente's Direction of environmental impact and ordination) regulates and evaluates EIA's. The Ministry of Economy and Finance holds the Secretariat of the Costa Rica-Panamá Border Convention.

The Transboundary Agreement and the Binational Commission

Bilateral relations between Costa Rica and Panama are directed by the Agreement between the Government of the Republic of Costa Rica and the Government of the Republic of Panama on Cooperation for Cross-border Development and its Annex, ratified by Costa Rica by Law No. 7518 published in the Official Gazette no. 140 of 24 July 1995, and by Panama by Law No. 16 of 10 August 1994, published in the Official Gazette No. 22.602 of 17 August 1994. The administrative structure of the Agreement proposes a Permanent Binational Commission presided over by the respective Planning Ministers, as well as a series of thematic Technical Commissions including the Technical Commission on Environmental Issues in which the ANAM and the MINAE participate. The Environmental Issues Working Group met within the framework of the 1st Meeting of the Political Consultation Mechanism, held in David City, Chiriquí, Republic of Panama, on 26 and 27 July 2007. The Group made a series of recommendations to the Ministries of Foreign affairs related to the management of the PILA, including the request that the bi-national PILA Commission (made up of the ANAM -now MiAmbiente- and the MINAE) be recognized as a Permanent Cross-sector Technical Committee under the Bi-national Agreement. The latter took effect in 2009, and UTEB-PILA is now formalized, counts with regulations and, depending on available budget, one or two coordinating meetings have been taking place every year.

3. IDENTIFICATION AND ASSESSMENT OF ISSUES/THREATS

Overall management

Costa Rica is in the process of updating the management plans of all seven protected areas that constitute the property. The plans of the Parque Internacional La Amistad and Parque Nacional Chirripó are approved and under implementation, while the plans for and Tapantí-Macizo de la Muerte and Hitoy Cerere are ready but awaiting formal approval. The formulation and/or updating of the management plans of others conservation units are still a work in progress.

Costa Rica applies annually a monitoring tool for monitoring the management effectiveness of protected areas. With regards to the World Heritage property, effectiveness is monitored per individual protected area. A new method was launched in 2014¹, and in 2015, three of the conservation units of the property

¹ SINAC 2014. Herramienta para la evaluación de la efectividad de manejo de las Áreas Silvestres Protegidas de Costa Rica. http://www.biomarcc.org/download_PDF/SINA_%20HerramientaEfectividad_2014.pdf

were analysed (La Amistad, Tapantí-Macizo de la Muerte and Reserva Forestal Río Macho). Effectiveness of management in other areas was not assessed after 2012 (reported in previous reactive monitoring report). Because the new methodology is different than the previous, results cannot be compared. In general, the analysis of management effectiveness of the areas resulted in relatively good scores for natural resource management (> 60%), but relatively low scores (40-50%) for administrative and social management. Main constraints are out-dated management plans and lacking plans for tourism and participation, communication and staff numbers.

The mission could confirm the moderate effectiveness of management in the Costa Rican side of the property. The number of staff has not increased since 2009, and most areas report a continued lack of staff. Data provided by SINAC showed that operative budgets increased over the years 2013-2016, but by relatively small numbers (5-10% between 2013 and 2014 and less than 5% annually afterwards). Therefore, now most protected areas report deficiencies in installations and difficulties to develop plans for education, communication and participation. Some illegal activities within the property continue to occur in the area (fires in páramo, uncontrolled tourism, slash-and-burn agricultural activities) but these are reported as being localized and not affecting the property's integrity on a major scale. A major concern is related to increasing detection of marihuana cultivation (see below).

In Panama, the existing management plan for the La Amistad national park included in the property (Parque Internacional La Amistad, PILA) dates from 2004 and is still valid, though not updated. Since 2001, ANAM (now MiAmbiente) applies an annual analysis of data on management effectiveness and reports on detailed monitoring (including stakeholder workshops) every 4-5 years in one report presenting results on all Protected Areas nationally². Since the Pacific and Caribbean side of PILA are under separate regional administrations, the effectiveness is measured separately as well. The last report (analysing data from 2014) considered that effectiveness of both parts was "acceptable", although the Caribbean side had a higher score than the Pacific side (729 vs. 614). The Caribbean side scored "regular" on natural resources, "satisfactory" on political management and "acceptable" on other indicator groups (social, economic and administrative). The Pacific side scored "regular" on social indicators and "acceptable" on all other indicators. The Caribbean side had a similar score as in 2011 (presented in the previous reactive monitoring report), but the Pacific side has attained a 10% lower score. Among others, both sides report deficient staff numbers, but the Pacific side reports that the actual staff number is less than 25% of the amount required.

In Panama, the mission indeed observed a continued lack of field staff, especially in relation to the easy access to the property on the Pacific side. Here, where the agricultural frontier borders on the Park, there are approximately 15 entry points that are frequently used by villagers and tourists but only 5 permanent park rangers. There has been no increase in number of park rangers since 2013. Civil society organizations have warned the mission about increased pressures from encroaching agriculture, uncontrolled tourism and increased poaching. Although these claims could not be validated, the proximity of these activities to the property does represent an imminent threat and require permanent and wide presence of park staff. At the Caribbean side, the arrangement with the companies that construct the CHAN75 and Bonyic dams include a provision of 12 additional park rangers by the companies. Although these are formally designated for the Palo Seco forest reserve (buffer area of PILA), MiAmbiente is implementing a coordination mechanism so that this new staff will be working in PILA as well.

A total of 19 Indicators in three management categories (social, administrative and natural resources) are scored. The overall score and the score per management category is expressed as a percentage of maximum possible score. These scores (in %) are rates as not acceptable (0-25%), regular (>25-50%), good (>50-75%), very good (>75-90%) and excellent (>90-100%). Underlying concepts are similar as the methodology applied in Panamá.

² Methodology: ANAM. (2007). Guía Básica: Programa de Monitoreo de la Efectividad de Manejo de las Áreas Protegidas del SINAP. Scores from 0-200 are defined as "unacceptable"; 200-400 as "slightly acceptable"; 400-600 as "regular"; 600-800 as "acceptable" and 800-1000 as "satisfactory". Underlying concepts are similar as the methodology applied in Costa Rica.

In both countries the property is surrounded by several areas of different protection status (Quetzal National Park, San San Pond Sak wetland, Volcan Barú National Park, Palo Seco Forest Reserve, Los Santos Forest Reserve) as well as approximately a dozen formally recognized indigenous territories (map 4). This setting provides the property with an adequate buffer zone whose management lies with the state, as well as indigenous peoples. The entire setting forms part of the Talamanca range Biosphere Reserves in both countries that should guarantee the integrated management of the wider setting of the World Heritage property, which is considered the core zone of the Biosphere reserve. However, there is relatively little activity under the Biosphere Reserve designation, with only few attempts to establish biosphere committees.

Assessment of threats

Hydropower dam construction

No actual hydropower dam construction takes place within the boundaries of the property, but several dams have been built or are under construction outside the property on rivers that originate within the property (Annex V, map 2 and 3). Several other potential dam projects have been identified and are currently under study. Dam construction has a considerable negative direct effect on the rivers' integrity by course deviation, sedimentation and pollution of downstream areas. It affects forests through flooding and through direct deforestation for construction. However, none of these direct effects impact on the property, which is situated upstream from the building sites and reservoirs.

Nonetheless, the dams are likely to have significant indirect negative impacts, particularly on freshwater biodiversity. Once the dams are constructed, and unless effective mitigation measures are put in place, the constructions form a barrier for migratory fish and crustacean species. Since many of the Talamanca range fish and macroinvertebrates species are migratory and depend on intact river systems from the brackish coast to cooler waters upstream, such a barrier would cause the disappearance of many species within the affected rivers that have their upstream area within the property. Studies have shown that migratory species are found up to 1000 - 1200 meters above sea level, which means that the unique freshwater biodiversity (one of the justifications of criterion x of the OUV) is seriously threatened in the rivers that are dammed and where the boundaries of the property are located lower than the mentioned altitudes. The latter is generally the case on the Caribbean side (where the lower boundary of the property is located between 90 and 250 m) but less relevant on the Pacific side.

Apart from the Reventazón river in Costa Rica (dammed before the property was declared protected area), the rivers Changuinola (dammed in 2011 by the CHAN75 project) and Bonyic (dammed in 2014) will certainly experience the mentioned negative effect on freshwater biodiversity. During the current mission, it was observed that the management companies of CHAN75 and Bonyic implemented a monitoring process on flora, terrestrial and aquatic fauna. Inventories and mitigation measures (replanting, reforestation, capture-and-release) were limited to the area directly impacted by the dam construction and flooding for the reservoir and according to measures approved in EIA. Studies of aquatic fauna were undertaken along the rivers, from within the WH site to the Ocean. In both cases (Bonyic and CHAN75) baseline studies were compiled by renowned experts in the area and considered well executed (an opinion shared by MiEnvironment, the construction companies, and ichthyologists consulted by the Mission).

Monitoring studies showed that the recently completed hydropower dams already had a measurable initial effect on aquatic fauna in the rivers that have their origin in the property. In the CHAN75 project, post-damming monitoring data were collected in 2013 and 2014. Although, according to consulted experts, the monitoring process was conducted in a satisfactory manner, it was done by another team and following a slightly different methodology than the one used to collect the baseline data (2008). Therefore, comparison

of pre- and post-damming data is not perfect. Nevertheless, the study already provided valuable data and interesting results. It concluded that impact was measurable, but still limited. The amount of species in the river (including upstream from the dam) increased which might be a methodological effect (more intense monitoring). No species disappearance upstream from the dam could be noted at this stage; however, increased average size and less abundance of juveniles of certain species, less abundance of catadromic fish and crustacean species indicate effects of limited migration possibilities. Increase of exotic fish (*Tilapia*) biomass is also an effect of damming and reservoir construction.

In Bonyic, a post-construction assessment of aquatic fauna was undertaken in 2014 by the same team that did the baseline assessment. However, it was too early to draw conclusions on the impact of the dam on the diversity and abundance of fish and crustaceans because the assessment was undertaken only month after damming. The assessment showed a high seasonal variety in species numbers and abundance, as well as in overall water quality, implying that intensive further monitoring should be continued taking into account this seasonality in order to compile sufficient data to evaluate the impacts of the dam.

In both projects, physical mitigation measures (e.g. fish stairs) have not been implemented. According to consulted freshwater biodiversity experts as well as biologists from the construction company which built the dams, these measures would be very costly but unlikely to have a major positive impact in this type of (high) dams. Instead, the companies implement compensation measures. In Bonyic, a capture-and-release programme is implemented: fish are caught below the dam and released above the dam, several times per year. Initial monitoring showed high survival success of this measure but it is too early to assess effects on river diversity. In Chan75, a breeding station is designed and will be in function mid-2016 with a capacity to farm four native (migratory) fish species, including the socially and commercially important Bocachica (*Joturus pichardi*). Although the breeding and release of four fish species will not compensate the full range of biodiversity of 21 species, this measure might be important for overall fish biomass as well as for the people depending on fisheries.

New hydropower projects

A large new project in the property's buffer zone is the CHAN140 reservoir (also called CHAN 2, or Bocas de Toro). This 213 MW hydropower plant project has been in planning for more than a decade. During the previous reactive monitoring mission (2013), government officials of Panama noted to the mission that realization of the project was uncertain because the concession that was originally granted to AES (the same company that built and manages CHAN75) and then was taken back by the government with the argument that in case AES would build the dam, it would control over 40% of Panama's power generation which is not allowed by Law 6/1997³. However, later the plan was resumed, with some minor revisions with regards to the generation capacity and the area that would be affected by the dam construction and flooding. In 2014, a new bidding process took place and in early 2015, a contract to construct the project was awarded to a consortium Bocas de Toro Energía, consisting of EGESA (Panama public company; minority share) and the Brazilian Odebrecht (majority share). It is expected that the construction will start in mid-2016 and finish in 2019. Representatives of Bocas del Toro Energía outlined to the monitoring mission their efforts to engage with and compensate the directly affected population and their plans for environmental monitoring and mitigation. These efforts, until now, only focus on the area directly affected by the dam construction and flooding by the reservoir.

The EIA for the modified CHAN140 project (now formally called "Bocas del Toro") was developed and approved by the Ministry of Environment in 2015. The mission reviewed the process and observed it was technically well-developed and followed national standards and regulations. However, several principles (particularly 2, 3 and 6) of IUCN's World Heritage Advice Note on Environmental Assessment were not

³http://www.centralamericadata.com/es/search?q1=content_es_le:%22Proyecto+Hidroel%C3%A9ctrico+Changuinola+II%22

followed. The EIA did not explicitly focus on the OUV of the World Heritage property; it did not include WH experts and did not include a specific chapter on the property. Also, it only focused on the area directly impacted by the project (5000 hectares) and did not include a comprehensive impact evaluation on aquatic fauna: for these aspects it only referred to the previous EIA of the project, without using much more detailed information that became available afterwards. Also, civil society organizations provided the mission with copies of letters sent during the public consultation on the EIA in which they claim serious deficiencies of the process related to free, prior and informed consent and indigenous rights, among others. According to the authors of these letters, the claims were not addressed through the EIA process.

As for the Pacific side of the property in Panamá, existing and planned dams on the Chico, Chiriquí Viejo and Chiriquí Rivers, at lower altitudes than the property boundary, will certainly affect the ecosystems of these rivers. However, given the high altitude of the boundary of the property, the impact on fish biodiversity in the property will be limited. The same holds for the General River (in Costa Rica, Pacific side) where a large hydroelectric project (Diquís) is in the feasibility study stage. Studies in the watersheds which can potentially be affected by this dam did not show any fish or crustacean species above the lower boundaries of the property (see 2013 reactive monitoring mission report).

The 2013 reactive monitoring mission noted how the development of the hydroelectric dams had seriously affected the local social context. It concluded that the on-going projects, where due consultation with indigenous peoples was lacking, have seriously affected the relationship of the indigenous peoples' organizations with the government. This includes the relationship with the protected areas agencies. Particularly in Panama, the process of dam development and the social compensation structures has disintegrated the internal social structure of several indigenous groups, illustrated by statements and formal and informal declarations delivered during that mission. Open criticism, protests and even lawsuits were made from both sides (construction companies and indigenous peoples' groups). This has slowed down the dam construction process (and considerably increased costs) and damaged trust and positive relationships between different stakeholder groups.

During the present reactive monitoring mission, a similar situation was observed around the Bonyic project. A high level of dissatisfaction of the native people (Naso-Teribe) with the dam construction and benefit sharing continued, in spite of having received (and formally accepted) many forms of compensation (labour, housing, land, cash). During stakeholder meetings, Naso representatives confirmed that the previously encountered internal division of their organizations is still on-going and even affecting relationships with neighbouring Ngobe people. Strikes and roadblocks, although not as intensive as during the construction phase, continued. In the influence area of CHAN75, the situation apparently is more positive: there is no current open conflict (protests, strikes, claims) and although the mission was given examples of dissatisfaction with the applied relocation scheme for affected people, no declaration of this was given by any directly affected family. Effects of the easier access to parts of the *Palo Seco* reserve, due to road construction for CHAN75, is evident, and there are reports of increased migration, subsistence hunting and localized (illegal) forest clearing, close to the WH property (observed during mission; see picture in Annex VI).

Dam construction in the present situation of ongoing social conflicts, lack of collaboration, and lack of trust in the relationships between community and state, decreases governability and increases the threat of uncontrolled migration. The new project (CHAN140) is now applying the same model as CHAN75, focusing mainly on the directly affected people that will be relocated, and not (yet) recognizing the impact on the complex social interactions at a wider scale. Therefore, there is a risk of accumulated impacts on the social relationships in the region. It is hoped though, that the Strategic Environmental Assessment process, described below, will help to mitigate this, among other issues.

Strategic Environmental Assessment

In 2010, the World Heritage Committee expressed its increased concern that the dams under construction on the Changuinola and Bonyic Rivers would very likely result in the direct loss of migratory fish and shrimp species, as well as having potential negative secondary impacts on biodiversity within the property. Therefore, through decision **34 COM 7B.32** it requested the Governments of Panama and Costa Rica to consider the collective impact of all proposed dams, likely to affect the property's Outstanding Universal Value through a transboundary strategic environmental assessment (SEA), in order to identify the least environmentally damaging options to meet energy and water management needs. In 2011, an SEA was commissioned and presented in 2012. The reactive monitoring mission in January 2013 expressed its concern over the procedure of this SEA and the progress achieved in that respect. In their State of Conservation report of 2015, the States Parties recognized the limitations of the 2012 SEA and noted that the results of the SEA did not sufficiently cover the impacts on the OUV of potential and on-going hydroelectric projects. Therefore, in subsequent decisions WHC repeated their request to complete the SEA as a matter of priority.

After the approval of the EIA of the modified proposal of the CHAN140 project, Panama elaborated a scoping report for this SEA (*informe de alcance*, November 2015) and Terms of Reference for contracting a consultant firm with expertise in SEA (November 2015). In parallel, with help of the concession holder of CHAN140 (Bocas de Toro Energy) a team of six specialists was contracted to facilitate the SEA process. According to their CV's (included in the first progress report of SEA, November 2015) they are globally renowned SEA specialists, with extensive experience in the region. The SEA will be financed by Bocas de Toro Energía, but the team reports to MiAmbiente.

According to both the scoping report elaborated by MiAmbiente and the progress report delivered by the SEA team, the OUV of the WHC property is the principal target of the SEA and avoiding inclusion of the property on the list of world heritage in danger, one of the goals. During the current mission, the SEA team explained that apart from the specific attention to OUV and the willingness to include World Heritage expertise in the process, a consultation process with a wide variety of stakeholders is foreseen. However, since the SEA process is just starting and will continue at least six months, its results will not be available before the environmental and social engagement and compensation process conducted by the concession holder of CHAN140, and likely also not before the construction phase of the project will commence.

According to the consulted documents and consultations with the government representatives by the mission, the initiative to commission a SEA has been taken by Panama in response to the increased concern expressed by the World Heritage Committee regarding development of hydro-energy projects. Therefore, and also due to the limited availability of funding, the scope of the SEA is limited to the Panamanian part of the property. Nevertheless, the States Parties of Costa Rica and Panama and the consultant team for the SEA are recognizing the need to expand the SEA to the entire transboundary property, as was requested by the World Heritage Committee. Initial conversations between government representatives of both countries about this issue have already taken place.

Cattle ranching and other agricultural activities

Scattered agricultural activities have been present in and around the area well before it was designated as protected areas. This is mostly low intensive cattle grazing (densities less than 1 head/hectare) in the high parts of the property (especially in the Panamanian part of the property) and rotational, slash-and-burn agriculture practiced by indigenous communities on the Costa Rican side. The situation with agriculture has been evaluated in the 2008 and 2013 reactive monitoring missions and its current situation has been analysed. According to the 2012 and 2015 State of Conservation reports submitted by the two States Parties, on the Costa Rican side, grazing has been abandoned and the mission did not encounter further reports or

alerts from third parties. Also, rotational agriculture is localized; only practiced by some traditional communities within their territories.

On the Panamanian side, MiAmbiente rangers and farmers met by the mission consider that the situation with cattle grazing is the same as during the 2013 mission: no expansion of grassland ever since the protected areas were established but rather a decrease of cattle numbers due to the low profitability. However, there has been no complete update of the 2004 information on cattle farms and deforestation caused within the area so the claim cannot be confirmed. In 2009, ANAM (now MiAmbiente) has established a working relationship with cattle farmers through which they can continue with their actual activities while alerting the park administration about eventual new invasions. MiAmbiente continued to consider this a positive tool because, according to a consulted park ranger, the rangers cannot control the entire territory of the national park and the participating farmers provide additional surveillance.

On the other hand, NGOs working around the park and Indigenous peoples' groups claim that cattle husbandry is increasing, both within and outside the park. Existing paths are being cleaned and new paths are being opened while the deforested land with secondary vegetation is cleared again. However, these claims are not sustained by field data or tangible evidence. Some pictures were delivered by a local NGO to the mission (see annex VI), which, according to the photographer, include deforestation spots very close to, though not within the property.

Slash-and-burn agriculture is relatively widespread in the property's buffer zone (Forest Reserves and indigenous territories). Also within the property, there are small areas of traditional agriculture on the Panamanian side and some localized new incursions on both the Costa Rican and Panamanian sides. Until now, these activities are of small intensity and they do not threaten the OUV. Only on the southernmost border (close to the Ngobe *comarca*) there are more numerous human settlements practicing traditional agriculture.

On the pacific side in Panama, there is relatively intensive agricultural production (vegetable and potato cultivation) close to the limits of the property. Although encroachment of agriculture is a permanent threat, direct incursions are still limited, among others thanks to a relatively good collaboration of farmers with the park management. On the other hand, NGOs around the park mention increase of agricultural activity. The mission could not detect any agricultural encroachment within the property but did observe a very intense (and intensifying) agricultural production right up to the border of the area in Las Nubes and Cerro Punta (see annexed pictures).

Road construction

For several years, a road from Boquete (Chiriquí) to Almirante (Bocas del Toro) has been included in Panama's Government Plans. The projected route of this road crosses the property from South to North on the highest side, crossing one of the most vulnerable parts in high mountain ecosystems. Since the previous reactive monitoring mission, there has been no concrete developments related to the planning of this road, and therefore it can be concluded that the road project until now is not an actual threat.

The hydroelectric dams on the Changuinola river are associated with road construction and increased navigability. Construction of the CHAN140 hydropower plant will lead to improved (road) access close to the boundaries of property on the Caribbean side.

Tourism

Tourism activities in the area are localized in two zones: the Chirripó area in Costa Rica and Boquete-Las Nubes in Panamá. Activities are increasing but still limited to a few ten thousands visitors per year (over the

entire area) involved in nature based tourism (hiking, bird watching). Threats related to tourism are mainly pollution and fires. Recently, after a few disappearances of tourists in the Panamanian side of the property, the local population and the park management have realized that no good tourist management plan existed and emergencies (that could have been avoided easily) heavily relied on collaboration of the population in search and rescue missions.

Illegal crops

Cultivation of illegal crops is a localized threat, but with possible broad environmental and social impact. Especially the Costa Rican side of the Talamanca region has a decades-long history of small-scale marihuana cultivation. The remoteness of the area, difficult access and good environmental conditions for cultivations have triggered small cultivations scattered in the mountain range⁴. During recent years, the activity seems to have increased evidenced by the amount of plots that have been found. SINAC informed the mission that in 2015, a total of 700,000 plants were destroyed (in collaboration with national police); 500,000 in Chirripó and 200,000 in PILA. This amount implies that a considerable area was directly impacted, but even worse is the threat to governability, security and the social context. There are reports of local people (including indigenous groups) being forced to cultivate or protect marihuana and of direct threats to set forest and paramo on fire, possibly as a reprisal for marijuana confiscation.

In 2015, alerted by farmers and people living in areas surrounding PILA in Panama, the management of the park discovered a drug processing plant in construction on an abandoned cattle farm. Although the construction was destroyed before it initiated functioning, it indicates the presence of drug-related activity on both sides of the border, probably interrelated.

4. ASSESSMENT OF THE STATE OF CONSERVATION OF THE PROPERTY

Evaluation of threats

The mission noted that the governments of Costa Rica and Panama, together with the different organizations involved, had made several efforts to maintain the integrity of the property and its OUV. Frequent communication with the World Heritage Centre, to follow-up on decisions of the World Heritage Committee subsequent to the 2008 and 2013 reactive monitoring missions and SOC reports, resulted in a series of measures from both countries aimed at reducing the threats to the integrity of the property and its OUV.

There are a few positive developments in both countries. Although not functioning optimally, the bi-national coordination framework between Panama and Costa Rica is in place. The mission perceived a satisfactory coordination between staff at field level in the two countries. There are frequent trans-border inspection missions and park guards from one country frequently assist meetings, workshops and other activities in the other country. At managerial level the coordination is less effective, caused by frequent staff turnover: of the people initially involved in the meetings of UTEB-PILA 6 years ago, only one person is still in the same position. This caused a lack of fluent communication among peers and difficulty in planning of joint actions. Also, there are financial constraints to organize binational meetings and administrative challenges (permits to cross borders) that form a barrier to fluent transborder coordination.

Despite the positive developments mentioned above, threats to the World Heritage property are likely increasing. Although magnitude of the threats and their concrete impacts on OUV are difficult to assess, the concerns about the conservation status of the property and the social conflicts around the property are serious. The main concerns are related to the on-going development plans of hydropower dams in the

⁴ <http://news.co.cr/police-destroy-562767-marijuana-plants-in-talamanca-costa-rica/9025/>

absence of a comprehensive SEA. Although development of a SEA is being planned for 2016, the construction of a new hydropower plant CHAN140 in the buffer zone of the area will have started before the results of the SEA are available.

Apart from hydropower dams established before the area was included in protected areas (Reventazón River, Costa Rica), no large-scale infrastructure is located directly within the property. All hydropower dams in operation or in study are outside the property. Of these, particularly the three dams on the Caribbean side in Panama (CHAN75, CHAN140 and Bonyic) will have direct impacts on the biodiversity of the property (fish and crustacean diversity). Initial impact has already been shown for the constructed dams (CHAN75 and Bonyic). The impact of the second dam on the Changuinola River will only increase the impact caused by the existing dam. The monitoring report of aquatic fauna, commissioned by the CHAN 75 operating company (AES) recommends maintaining extensive parts of intact riverine ecosystems above the reservoir, to provide natural habitat for migratory species that do not need connection with salt water. This implies that flooding of those areas caused by the planned construction of the second dam would result in cumulative effects on biodiversity.

The threats from other infrastructure development programs (road construction) to the property are latent problems since there is no indication that there is any concrete projects or plans. Increasing cultivation of illegal crops is a concern. According to the information provided, agricultural activities, which might pose a threat outside the property, are localized and do not show an increasing trend within the property. The mission does not consider that increasing tourism is a direct threat to the property, but it should be accompanied by (updated) management plans including comprehensive public use plans and increased capacity of park management (number of staff, budgets).

Outstanding Universal Value

The mission observed that some localized irreversible damage has occurred, especially to freshwater biodiversity on the Panama side of the property. Monitoring studies, conducted to date, have not provided evidence of species disappearance upstream from the dam at this stage; however, increased average size and less abundance of juveniles of certain species, less abundance of catadromic fish and crustacean species indicate effects of limited migration possibilities. Although the two already built hydropower dams and all planned projects are located outside the property's boundaries and are unlikely to affect its landscape beauty and geological processes (criteria vii and viii), they represent an ascertained and potential danger to the freshwater biodiversity (criterion x) and ecological processes (criterion ix) related to the discontinuity of river systems after dam construction (particularly Changuinola and Bonyic) and irreversible impacts on unique species assemblage of the affected rivers. Existing dams and dams under construction on the Pacific side of the property will likely have little impact on fresh water biodiversity of the higher watersheds where the property is situated.

5. CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The mission observed that some localized irreversible damage has occurred, especially to freshwater biodiversity on the Panama side of the property. Monitoring studies, conducted to date, have not provided evidence of species disappearance upstream from the dam at this stage; however, increased average size and less abundance of juveniles of certain species, less abundance of catadromic fish and crustacean species indicate effects of limited migration possibilities. The previous reactive monitoring mission (2013) concluded that development of new infrastructure and large-scale industrial projects (including new hydropower projects, any road crossing the property and mining within the property or in the buffer zone) would represent ascertained danger and imply that the property would meet the conditions for inscription on the List of World Heritage in Danger. In its Decision 39COM7B.29, the World Heritage Committee noted that “any development of new hydropower projects prior to the finalization and adequate review of the SEA would lead to the inscription of the property on the List of World Heritage in Danger”. The current preparation for the construction of a new hydropower dam on the Changuinola River (CHAN140), close to the property's boundaries, clearly represents such development of hydropower projects. In addition to direct impacts associated with the construction of a new dam, the impact of damming and flooding of an additional area of the Changuinola River will also have cumulative impacts on biodiversity. Also, in the present situation of on-going social conflicts related to the existing and planned hydropower projects, new developments include a serious risk of accumulated social impacts around the property.

The mission notes that the response to the decisions made by the World Heritage Committee (WHC) subsequent to the previous reactive monitoring mission has been slow. There is specific concern over the fact that hydropower development has continued while no comprehensive SEA has been conducted. The mission welcomes the initiative by the State Party of Panama to commence preparation of the SEA in 2016, which has a good initial design, targets the Outstanding Universal Value (OUV) of the property and is facilitated by a team of internationally renowned experts. However, the decision to build a new dam on the Changuinola River (CHAN140) has already been taken, and its construction is expected to begin in mid-2016. The Environmental Impact Assessment (EIA) of the CHAN140 project has been approved by the Ministry of the Environment, although it did not fully follow World Heritage standards (outlined in IUCN's World Heritage Advice Note on Environmental Assessment). Social and environmental compensation mechanisms have already been put in place, including resettlement arrangements. Because of this timing and on the basis of previous examples of ineffective follow-up to World Heritage Committee recommendations and requests, the mission considers that it is uncertain if the results of the SEA will be included in the design, implementation and operation of this new hydropower project, and recommends that the implementation of the CHAN 140 project should be put on hold to ensure that the findings of the SEA can adequately be taken into account. Adequate measures will need to be put in place to ensure the findings of the SEA will be taken into account in any future large-scale development projects in or around the property.

Due to the fact that hydropower project development continued, with another dam (CHAN140) having been approved, while no comprehensive SEA has been conducted, the mission concludes that the current and potential cumulative impacts of on-going development of hydroelectric power plants represent both an ascertained and a potential danger, respectively, to the Outstanding Universal Value of the property in line with paragraph 180 of the *Operational Guidelines*, and therefore considers that the property meets the criteria for inscription on the List of World Heritage in Danger.

The mission is also concerned that the management of the different protected areas that make up the property has not improved in recent years: staff numbers and budgets continue to be deficient, management plans and complementary plans (communication, participation, tourism) are out-dated or non-existing and revision processes take several years. In addition, there is a continued lack of updated data on

land use close to and within the property, in spite of repeated requests in WHC decisions in this regard. This lack of data makes it difficult to either confirm or disprove recurrent claims of civil society organizations and local inhabitants of agricultural encroachment within the property.

In addition to its recommendation to inscribe the property on the List of World Heritage in Danger, the mission recommends that the following Corrective Measures should be implemented by the State Party of Panama before the 41st session of the World Heritage Committee in 2017:

1. In consultation with the State Party of Costa Rica, finalize the Strategic Environmental Assessment (SEA) for the property, in line with national procedural standards and international best practice, including the IUCN's World Heritage Advice Note on Environmental Assessment, and guaranteeing the participation of indigenous communities having (recognized or customary) territorial rights in and around the property.
2. Ensure, through the development of appropriate mechanisms, that the results of the Strategic Environmental Assessment are used to guide the planning and operation of any new large-scale infrastructure development project in and around the property and halt any ongoing projects, including the recently approved CHAN 140 hydropower project, to allow the results of the SEA to be considered in these projects

The mission also recommends that the States Parties of Panama and Costa Rica:

3. Implement other pending recommendations of the 2013 IUCN Reactive Monitoring mission:
 - a. guarantee the long term integrity of complete unaffected watersheds, which form part of the property at altitudes below 1,200 metres, to preserve aquatic ecosystems therein
 - b. ensure that the results of the developed monitoring programmes in the Changuinola and Bonyic watersheds guide adequate measures to minimize biodiversity loss caused by the constructed dams.
4. Compile field data on the present state of human activities, including livestock grazing and cultivation of illegal crops, within and directly adjacent to the property, including number of hectares affected, number of families, heads of cattle and cattle trails/footpaths.
5. Finalize the elaboration and updating process of the management plans of the different protected areas that constitute the property and harmonize them within the framework of one overarching management approach.
6. Strengthen the capacity to apply effective control of the property through increasing the number of park staff, satisfying minimum needs for budgets and equipment and remove administrative barriers for bilateral collaboration in management operations.

6. ANNEXES

Annex I – Decision 39COM 7B.28.

Talamanca Range-La Amistad Reserves / La Amistad National Park (Costa Rica / Panama) (N 205bis) The World Heritage Committee,

The World Heritage Committee,

1. Having examined Document WHC-15/39.COM/7B,
2. Recalling Decision **37 COM 7B.30**, adopted at its 37th session (Phnom Penh, 2013),
3. Commends the States Parties for the progress achieved in strengthening transboundary cooperation and reducing the threats to the property's Outstanding Universal Value (OUV) originating from encroachment of agriculture and cattle grazing and potential road construction;
4. Strongly regrets that, despite the Committee's previous decisions, construction of the Bonyic dam has been completed without prior consideration of the results of a comprehensive Strategic Environmental Assessment (SEA), and urges the States Parties to develop such an assessment as a matter of priority, based on the results of the preliminary SEA completed in 2012, and in consultation with IUCN, if necessary;
5. Notes with concern the impacts on freshwater biodiversity in at least two watersheds (Changuinola and Bonyic), and requests the State Party of Panama to ensure that the results of the developed monitoring programmes guide adequate measures to minimize biodiversity loss;
6. Considers that any development of new hydropower projects prior to the finalization and adequate review of the SEA would lead to the inscription of the property on the List of World Heritage in Danger;
7. Also notes with concern that a new hydropower project on the Changuinola river (Chan II) was approved in 2013 which the States Parties report would result in further cumulative impacts on both aquatic and terrestrial fauna and implies risks of social conflicts with local communities and, noting the reported current review and reconsideration of the project following the proposed changes in its design, also urges the State Party of Panama not to resume this project, until:
 1. the SEA for the property has been completed to guide the review of the project,
 2. the project has been subject to an independent Environmental Impact Assessment, including a specific assessment of potential impacts on the OUV of the property in conformity with IUCN's World Heritage Advice Note on Environmental Assessment,
 3. due process has been ensured to achieve Free, Prior and Informed Consent by indigenous communities having territorial rights in the affected lands;
8. Also requests the States Parties to implement all other recommendations of the 2013 IUCN Reactive Monitoring mission;
9. Further requests the States Parties to invite an IUCN Reactive Monitoring mission to the property to evaluate the progress achieved with the development of the SEA and to provide necessary technical advice and to assess the effectiveness of the mitigation measures developed for Bonyic and CHAN-75 projects;
10. Requests furthermore the State Party to submit to the World Heritage Centre, by **1 February 2016**, an updated report, including a 1-page executive summary, on the state of conservation of the property and the implementation of the above, including an assessment of the effectiveness of the developed mitigation measures for the existing hydroelectric projects, for examination by the World Heritage Committee at its 40th session in 2016, **with a view to considering, in case of the confirmation of ascertained or potential danger to Outstanding Universal Value, the possible inscription of the property on the List of World Heritage in Danger.**

Annex II – Terms of Reference
IUCN Reactive Monitoring Mission; Talamanca Range-La Amistad Reserves/La Amistad National Park
(Costa Rica/Panama)

11-15 January 2016

At its 39th session, the World Heritage Committee requested the States Parties of Costa Rica and Panama to invite an IUCN Reactive Monitoring mission to Talamanca Range-La Amistad / La Amistad National Park World Heritage Site to evaluate the progress achieved with the development of the Strategic Environmental Assessment (SEA) and to provide necessary technical advice in this regard and to assess the effectiveness of the mitigation measures developed for Bonyic and CHAN-75 projects (Decision **39 COM 7B.28**). An official invitation letter for the mission was issued by the authorities of the Republic of Panama on the 2nd of September 2015. The mission team will be composed of Mr. Robert Hofstede, representing IUCN. The mission will take place in Panama, with representatives of Costa Rica present during the mission.

In particular, the mission should address the following points, and make recommendations as relevant to each:

1. Review the progress achieved by the States Parties with the development of the comprehensive SEA for the property and to provide necessary technical advice in this regard;
2. Assess the effectiveness of the mitigation measures developed for the Bonyic and CHAN-75 projects in Panama;
3. Review the current status of the Chan II project in Panama, for which an EIA was approved in 2013, and assess whether any changes were made to the project design, as announced by the State Party of Panama in March 2015, and whether the following issues have been resolved as requested by the World Heritage Committee in its Decision 39 COM 7B.28:
 - the SEA for the property has been completed to guide the review of the project,
 - the project has been subject to an independent Environmental Impact Assessment, including a specific assessment of potential impacts on the OUV of the property in conformity with IUCN's World Heritage Advice Note on Environmental Assessment,
 - due process has been ensured to achieve Free, Prior and Informed Consent by indigenous communities having territorial rights in the affected lands;
4. Review the progress achieved by the States Parties in the implementation of other recommendations of the 2013 Reactive Monitoring Mission;
5. In line with paragraph 173 of the Operational Guidelines, assess any other relevant conservation issues that may negatively impact on the Outstanding Universal Value of the property.

The mission should be assisted to conduct the necessary field visits to key locations in Panama, and to meet all of the relevant stakeholders concerned. The following items should be provided to the World Heritage Centre (copied to IUCN) as soon as possible; preferably no later than end of November 2015 to enable preparation for the mission:

- a) An update report on the progress achieved with the development of the SEA for the property;
- b) Preliminary results of these monitoring programmes for some freshwater species developed for the Bonyic and Chan-75 projects in Panama, as well as detailed information on the effectiveness of mitigation measures of these projects;
- c) Information regarding the current status of the Chan II project in Panama, including the most recent documentation reflecting the current design of the project and a copy of the EIA of the

project, as well as information on the process put in place to achieve Free, Prior and Informed Consent by indigenous communities having territorial rights in the lands that would be affected;

The mission should hold consultation with the authorities of the Republic of Panama and the Republic of Costa Rica at both the federal and regional level, in particular the Ministry of the Environment (Panama) and the Ministry of Environment, Energy and Telecommunications (Costa Rica), including National Commission of Conservation Areas (SINAC); additional consultations should be held with the range of other relevant stakeholders, including: i) NGOs; ii) staff members of the protected areas concerned; i) representatives of the local and indigenous communities who would be affected by the proposed Chan II project; iv) researchers; v) representatives of the companies managing the Bonyic and Chan-75 hydropower plants vi) representatives of EGESA (La Empresa de Generación Eléctrica, S.A.).

Based on the results of the above-mentioned assessment and discussions with the representatives of the States Parties and other stakeholders, the mission team will develop recommendations for the Governments of Costa Rica and Panama and the World Heritage Committee to further ensure the conservation of the Outstanding Universal Value of the property and improve its management. It should be noted that recommendations are made within the mission report (see below), and not while the mission is still on-going.

The mission will prepare a concise mission report on the findings and recommendations of this Reactive Monitoring mission no later than 6 weeks after the end of the field visit, following the annexed standard format.

Annex III – Mission itinerary and program.

During the mission between 11 and 15 January 2016, activities were implemented in Panamá City and in the field. All meetings were attended by the Mission lead, the director and staff from the central office of the department of protected areas and wildlife (DAPVS) of MiAmbiente and the Ambassador of Panamá to Unesco. Representatives from the MINAE/SINAC Costa Rica were present at all meetings, except the first day. The table presents the other institutions present in the third column (full list or persons see Annex IV)

Date	Meetings & Other Activities	Institutions present.
<i>Monday 11 January</i>		
Morning:	<ul style="list-style-type: none"> • Introductory meeting at Ministry of Environment, Panamá City. Presentation of the Mission objectives, Agreement of agenda, Follow up of State Party to decisions of WHC and recomendations of previous missions, presentation of progress of SEA (MiAMbiente and BEP Advisors) • Briefing to Minister of Environment 	<ul style="list-style-type: none"> • Ministry of Environment (department of protected areas and wildlife (DAPVS), department of environmental impact (EI), department of international affairs (IA), BEP advisors) • Minister of environment
Afternoon	<ul style="list-style-type: none"> • Flight to David • Meeting with PILA-Pacifico staff in MiAmbiente office David. Presentation of management of PILA-Pacifico 	<ul style="list-style-type: none"> • MiAmbiente PILA-Pacifico
<i>Tuesday, 12 January</i>		
Morning	<ul style="list-style-type: none"> • Meeting with local stakeholders in the visitor centre of PILA-Pacifico (Las Nubes). Open conversation on concerns about PILA integrity and management 	<ul style="list-style-type: none"> • Local NGO's (Chiriquí), MiAmbiente Chiriquí and PILA-Pacifico
Afternoon	<ul style="list-style-type: none"> • Flight to Changuinola • Meeting with PILA-Caribe staff in MiAmbiente office Changuinola. Presentation of management of PILA-Caribe 	<ul style="list-style-type: none"> • MiAmbiente Bocas del Toro and PILA-Caribe
<i>Wednesday, 13 January</i>		
Morning	<ul style="list-style-type: none"> • Meeting with local stakeholders in the Ministry of Agriculture premises (Changuinola). Open conversation on concerns about PILA integrity and management 	<ul style="list-style-type: none"> • Local NGO's (Chiriquí), Indigenous peoples' groups, local farmers and tourist operators, MiAmbiente Bocas del Toro and PILA-Caribe
Afternoon	<ul style="list-style-type: none"> • Meeting at office of Hidroecológica del Teribe S.A. (company that operates Bonyic hydropower plant, Changuinola). Presentation of biological monitoring programme results • Field visit to Bonyic Hydropower plant • Conversation with affected community Rancho Quemado, 	<ul style="list-style-type: none"> • Hidroecológica del Teribe, Consultants, MiAmbiente Bocas del Toro and PILA-Caribe • Community members, MiAmbiente Bocas del Toro and PILA-Caribe
<i>Thursday, 14 January</i>		

- | | | |
|-----------|--|---|
| Morning | <ul style="list-style-type: none"> • Visit to Chan75 dam. Presentation by AES Changuinola (company that operates CHAN75 hydropower plant) on operations and social compensation and environmental monitoring. | <ul style="list-style-type: none"> • AES Changuinola, MiAmbiente Bocas del Toro and PILA-Caribe |
| Afternoon | <ul style="list-style-type: none"> • Field visit to CHAN75 dam and hydrobiological station (for native fish farming) | <ul style="list-style-type: none"> • A AES Changuinola, MiAmbiente Bocas del Toro and PILA-Caribe. |
-

Friday, 15 January

- | | | |
|-----------|---|---|
| Morning | <ul style="list-style-type: none"> • Flight to Panama • Meeting at MiAmbiente with BEP advisors on SEA plan • Meeting at MiAmbiente with Ministry of Finance representatives on transboundary agreement and binational commissions • Meeting at MiAmbiente with staff of Bocas del Toro Energía (Consortium that will build and operate CHAN140 hydropower plant, Changuinola). Presentation of progress and current status of project and social compensation plans. | <ul style="list-style-type: none"> • BEP advisors, MiAmbiente (Department of EI) • Ministry of Finance staff, MiAmbiente (Department of IA) • Bocas del Toro Energía, BEP advisors |
| Afternoon | <ul style="list-style-type: none"> • Meeting at Parque Metropolitano with IUCN National Committee Panamá. Open conversation on concerns about PILA integrity and management • Debriefing to Minister of Environment and delegate of Ministry of Foreign Affairs | <ul style="list-style-type: none"> • IUCN member organizations based in Panamá City • Minister of Environment, Delegate Ministry of Foreign Affairs |
-

Annex IV– List of people attending the various meeting during mission

11 January; Ministry of Environment Panamá, Introductory Meeting

Flavio Méndez	Ambassador of Panamá to UNESCO
Samuel Valdés	Director DAPVS, MiAmbiente
Elba Cortés	MiAmbiente, International Affairs
V. Twbo villarreal	MiAmbiente
Elizabeth Clark	MiAmbiente
Jorge García	MiAmbiente
Dayro Samaniego	MiAmbiente
Hilaria López	MiAmbiente
Benito Russo	MiAmbiente, Environmental Evaluation
Ana Lorena López	MiAmbiente
Marisol E. Dimas	MiAmbiente
Roberto Roca	BEPadvisors
María R. Partidario	BEPadvisors
Pablo Piña	BEPadvisors
Robert Hofstede	UICN-Mission Lead

11 January; Briefing Minister of Environment

Mirei Endara	Minister of Environment
Flavio Méndez	Ambassador of Panamá to UNESCO
Samuel Valdés	MiAmbiente
Robert Hofstede	UICN-Mission Lead

11 January; Regional Office MiAmbeinte Chiriquí

Flavio Mendez	Ambassador of Panamá to UNESCO
Luis Sánchez	SINAC-ACLAP
Ana María Monge	SINAC-MINAE
Samuel Valdés	MiAmbiente
Ana Lorena López	MiAmbiente
José Ardúz	MiAmbiente
Delvis A. Mojica	MiAmbiente
Yarisbeth Del C. Alaín	MiAmbiente
Jorge García	MiAmbiente
Elizabeth Clark	MiAmbiente
Nicomedes Jiménez	MiAmbiente
Robert Hofstede	UICN-Mission Lead

12 January. Las Nubes, Puesto de Guardaparques Cerro Punta

Luis Olmedo Sánchez	FUNDICCEP
Damaris Sánchez	FUNDICCEP
Luis Morales	FUNDICEPP
Ezequiel	ACB
Jonathan González	ACD
Flora Ledy Amador	ASAELA -ADATA
Kattya Fuentes	UNACHI
Daisy Vega	Local Inhabitant
Emilio Fuentes	Local Inhabitant
Lely Morales	Local Inhabitant
Ana C. Montenegro	Local Inhabitant
N. Barroso	Local Inhabitant
Ana Sofía Camargo	Local Inhabitant

Ana María Monge	SINAC-MINAE
Luis Sánchez	SINAC-ACLAP
Carlos Alfaro	Los Quetzales Ecolodge
Elizabeth Clark	MiAmbiente
Yarisbeth Del C. Alaín	MiAmbiente
Ivan Marín	MiAmbiente
Delvis A. Mojica	MiAmbiente
Samuel Valdés	MiAmbiente
Flavio Mendez	Ambassador of Panamá to UNESCO
Robert Hofstede	UICN-Mission Lead

12 January; Dirección Regional de Bocas del Toro, Chiriquí

Luis Sánchez	SINAC
Ana María Monge	SINAC-MINAE
Corolina Wong	MiAmbiente
Joselin Mosaquites	MiAmbiente
Jorge García	MiAmbiente
Samuel Vargas	MiAmbiente
Elizabeth Clark	MiAmbiente
Zeidy Llorente	MiAmbiente
Armando Almego	MiAmbiente
Benigno Villamonte	MiAmbiente
Samuel Valdés	MiAmbiente
Flavio Mendez	Ambassador of Panamá to UNESCO
Robert Hofstede	UICN-Mission Lead

13 January; Changuinola Salón de Reuniones en MIDA

Orlando Lozada	ASAP
Marcio Bonilla	Bio educador. ANAI
Ana María Arias	Asociación ANAI
Tenorio Ruiz	R. P. Del area akeso
Andrés Palacio	Jubilado
Enrique Santo	Presidente de Jubilados
Olmedo Espinosa	Comisión naso
Ana María Monge	SINAC-MINAE
Tomás Villagre	Local inhabitant
Agapito Castillo	Cooperativa Servicio múltiple/Rancho Quemado
Pablo Piña	BEPadvisors
Roberto Roca	BEPadvisors
María R. Partidario	BEPadvisors
Ricardo Santori	MEDUCA
Edwin Sámchez	ODESEN
Carina Gamarra	ODESEN
Adolfo Umagro	ODESEN
Olinda Castrillón	MO.DE.Teab
Delfina Villagra	MO.DE.Teab
Melisa Molina	MO.DE.Teab
Octavio Palacio	MO.DE.Teab
Alejandro Morales	Local inhabitant
Pablo Villa	Local inhabitant
Angel Gonzalez	Alianza Boca
Isaías Ramos	CIAM
Susana Serracín	CIAM
Lucero Gamarra	Territorio NASO
Alfredo Caballero	AAMVizcona

Alfredo Mukedya	Cacique local
Elizabeth Clark	MiAmbiente
Hernández Bonilla	MiAmbiente
Ana Lorena López	MiAmbiente
Samuel Valdés	MiAmbiente
Flavio Mendez	Ambassador of Panamá to UNESCO
Robert Hofstede	UICN-Mission Lead

13 January: Oficina de la Hidroecología del Teribe (HET), Changuinola

Danis Aetola	HET
Mitsila Pineda	HET
Juliana Bailey	HET
Jorge García	HET (Consultor)
Alejandro De Selao	HET (Consultor)
Pablo Piña	BEPadvisors
Roberto Roca	BEPadvisors
María R. Partidario	BEPadvisors
Joselin Mosaquites	MiAmbiente
Corolina Wong	MiAmbiente
Zeidy Llorente	MiAmbiente
Jorge García	MiAmbiente
Leydis Torres	MiAmbiente
Samuel Valdés	MiAmbiente
Flavio Mendez	Ambassador of Panamá to UNESCO
Robert Hofstede	UICN-Mission Lead

14 January; AES Changuinola-Central hidroeléctrica

Yilka Viquez	AES Changuinola
Rodolfo Dyanzo	AES Changuinola
Luis Galán	AES Changuinola
Adarys M. Durán	AES Changuinola
Luis Sánchez	SINAC-ACLAP
Ana María Monge	SINAC-MINAE
María R. Partidario	BEPadvisors
Jorge García	MiAmbiente
Corolina Wong	MiAmbiente
Ana Lorena López	MiAmbiente
Benigno Villemonte	MiAmbiente
Samuel Valdés	MiAmbiente
Flavio Mendez	Ambassador of Panamá to UNESCO
Robert Hofstede	UICN-Mission Lead

15 January; Ministerio de Ambiente Panamá, SEA

Benito Russo	MiAmbiente (Environmental Evaluation)
María R. Partidario	BEPadvisors
Roberto Roca	BEPadvisors
Elizabeth Clark	MiAmbiente
Flavio Mendez	Ambassador of Panamá to UNESCO
Robert Hofstede	UICN-Mission Lead

15 January; Ministerio de Ambiente Panamá, Transboundary agreement

Georgina Osorio	MEF Secretaría Convenio fronterizo
Omar Gómez	MEF Secretaría Convenio fronterizo

Itza Vejos	MiAmbiente, Environmental Planning and Policy
Roberto Bonilla	MiAmbiente, Environmental Planning and Policy
Elba Cortés	MiAmbiente (International Affairs)
Luis Sánchez A	SINAC-APLAC
Ana María Monge	SINAC-MINAE
Ana Lorena López	MiAmbiente
Samuel Valdés	MiAmbiente
Robert Hofstede	UICN-UNESCO asesor

15 January; Ministerio de Ambiente Panamá, Presentation Bocas del Toro Energía

Carlos Monge	Bocas del Toro Energía
Horacio Brito	Bocas del Toro Energía
María R. Partidario	BEPadvisors
Roberto Roca	BEPadvisors
Luis Sánchez A	SINAC-APLAC
Ana María Monge	SINAC-MINAE
Elizabeth Clark	MiAmbiente
Ana Lorena López	MiAmbiente
Samuel Valdés	MiAmbiente
Robert Hofstede	UICN-Mission Lead

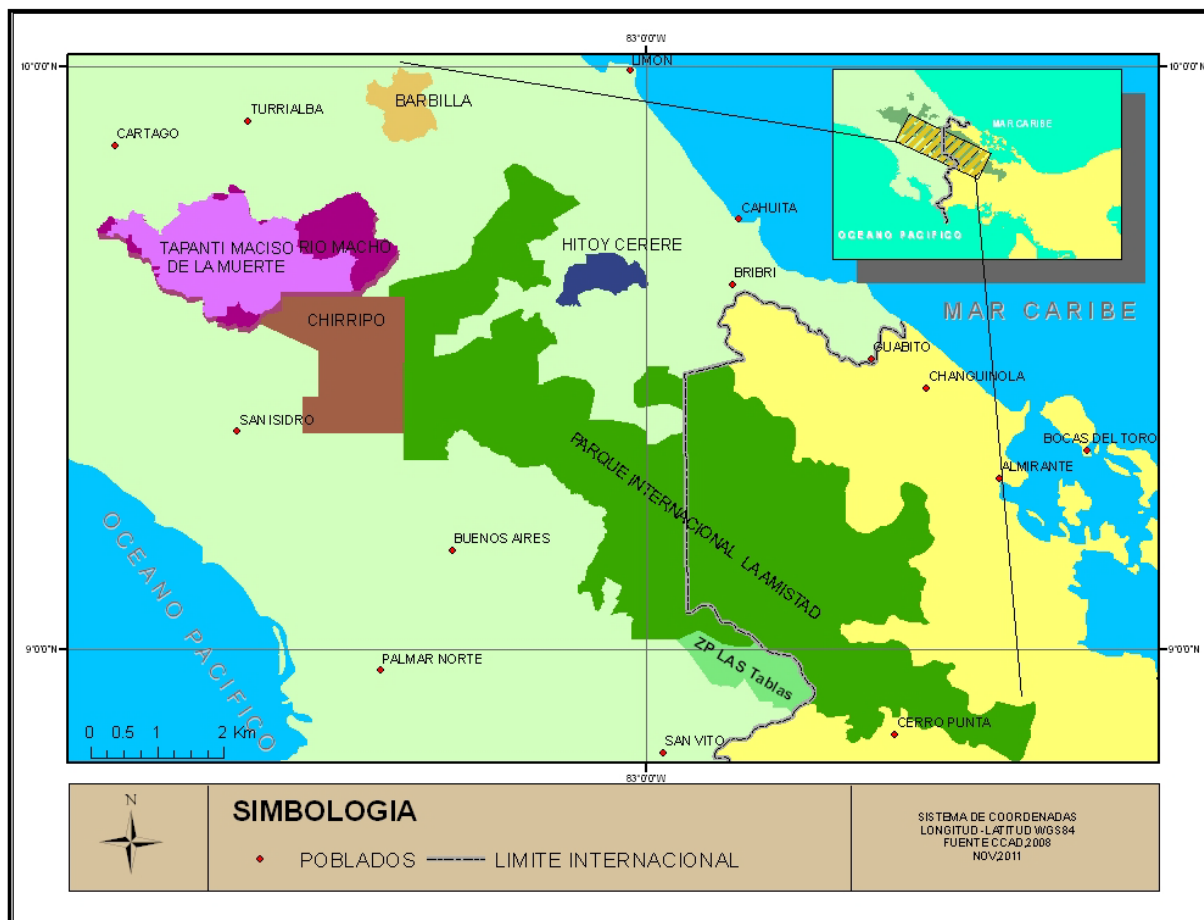
15 January; Parque Natural Metropolitano. IUCN National Committee

Ricardo Wong	Fundación para la Protección del Mar
Ana Lorena López	MiAmbiente
Dimara Nuñez	Parque Nat. Metropolitano
Sonia Montenegro	CIAM
Daniel Holness	CEASPA
Osvaldo Jordan	ACD
Susana Cerracín	CIAM
Francisco Herrera	CEASPA
Harley Mitchell	GAEA Abogados
Isaías Ramos	CIAM
Luis Sánchez A	SINAC-APLAC
Ana María Monge	SINAC-MINAE
Samuel Valdés	MiAmbiente
Robert Hofstede	UICN-Mission Lead

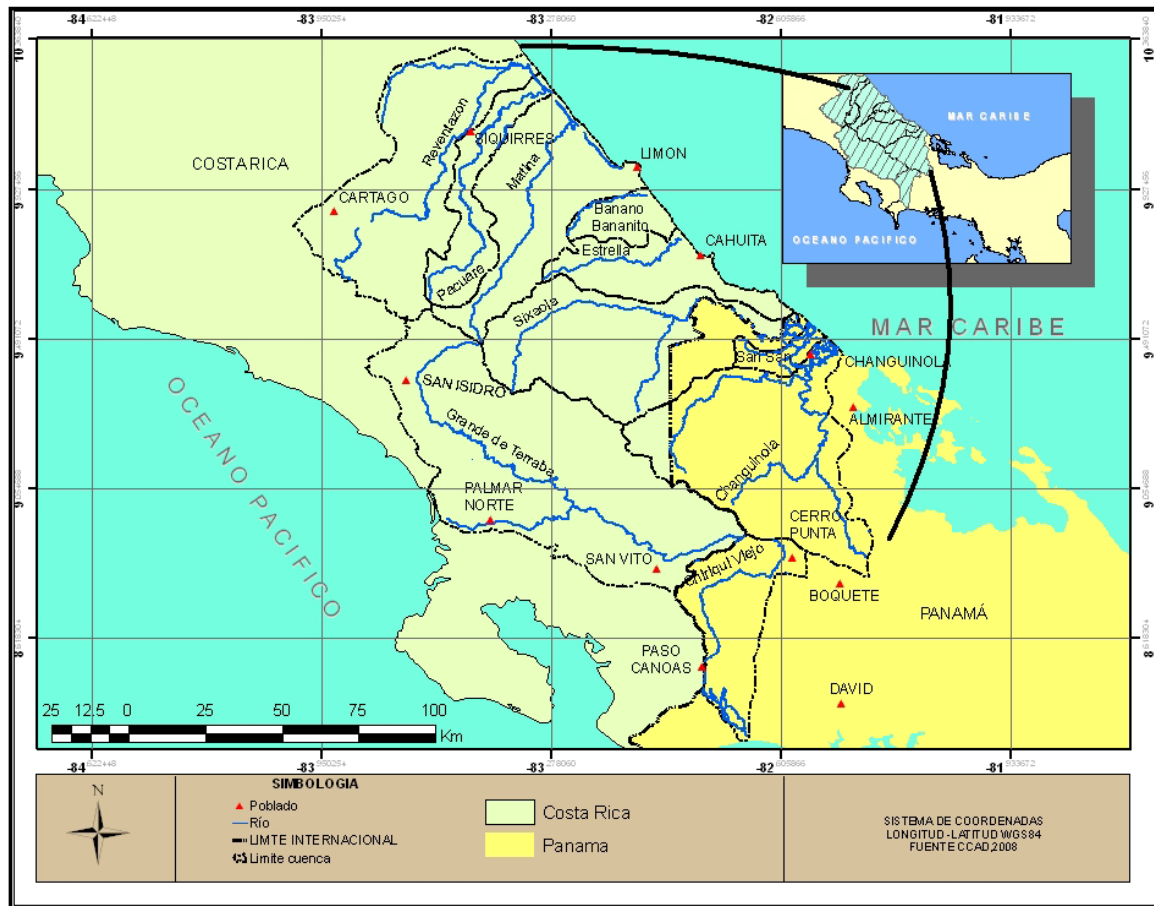
15 January; Ministerio de Ambiente Panamá, Debriefing to Minister of Environment

Mirei Endara	Minister of Environment
Jorge Patiño	Ministry of Foreign Affairs
Ana María Monge	SINAC-MINAE
Luis Sánchez A	SINAC-APLAC
Samuel Valdés	MiAmbiente
Robert Hofstede	UICN-Mission Lead

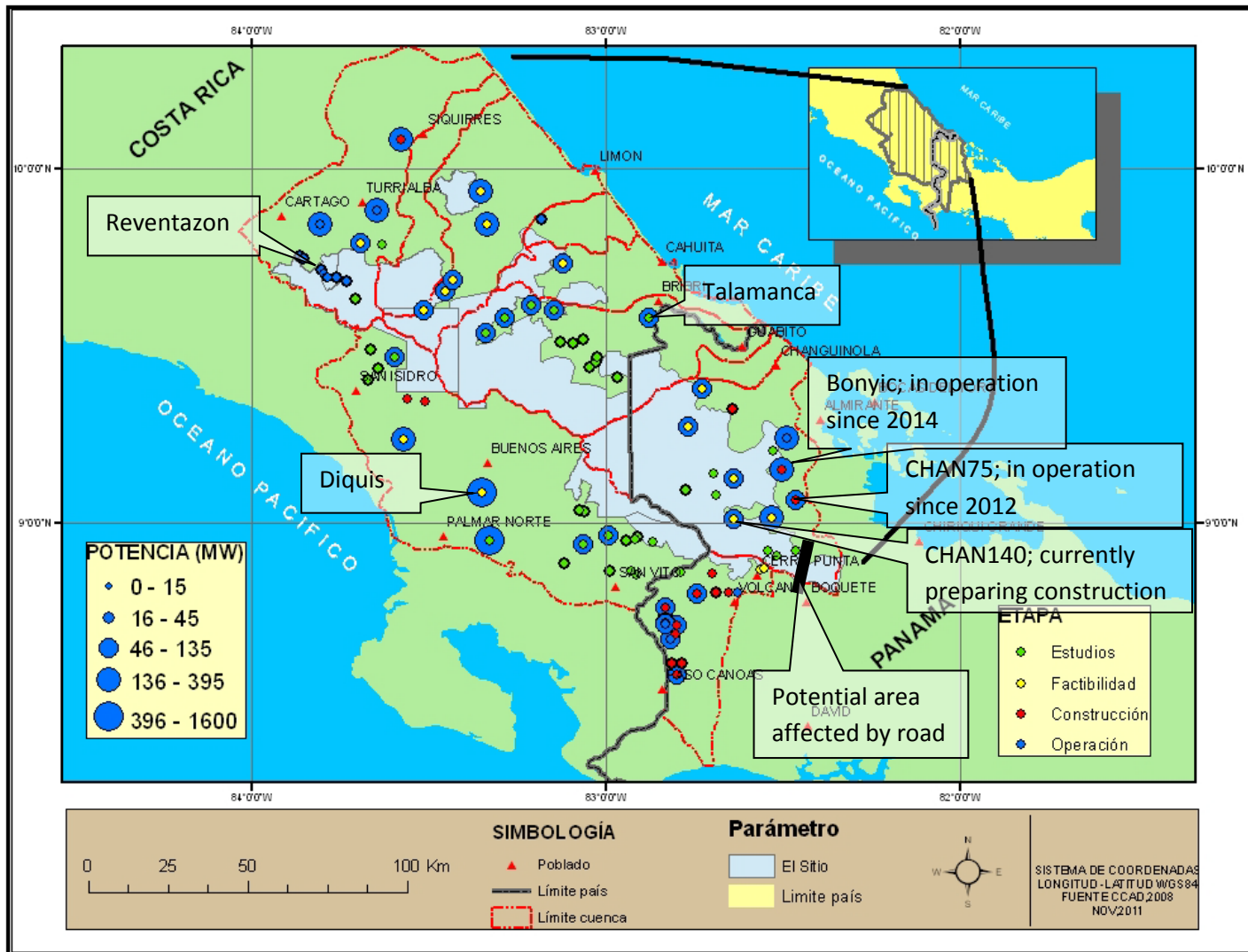
Annex V– Maps



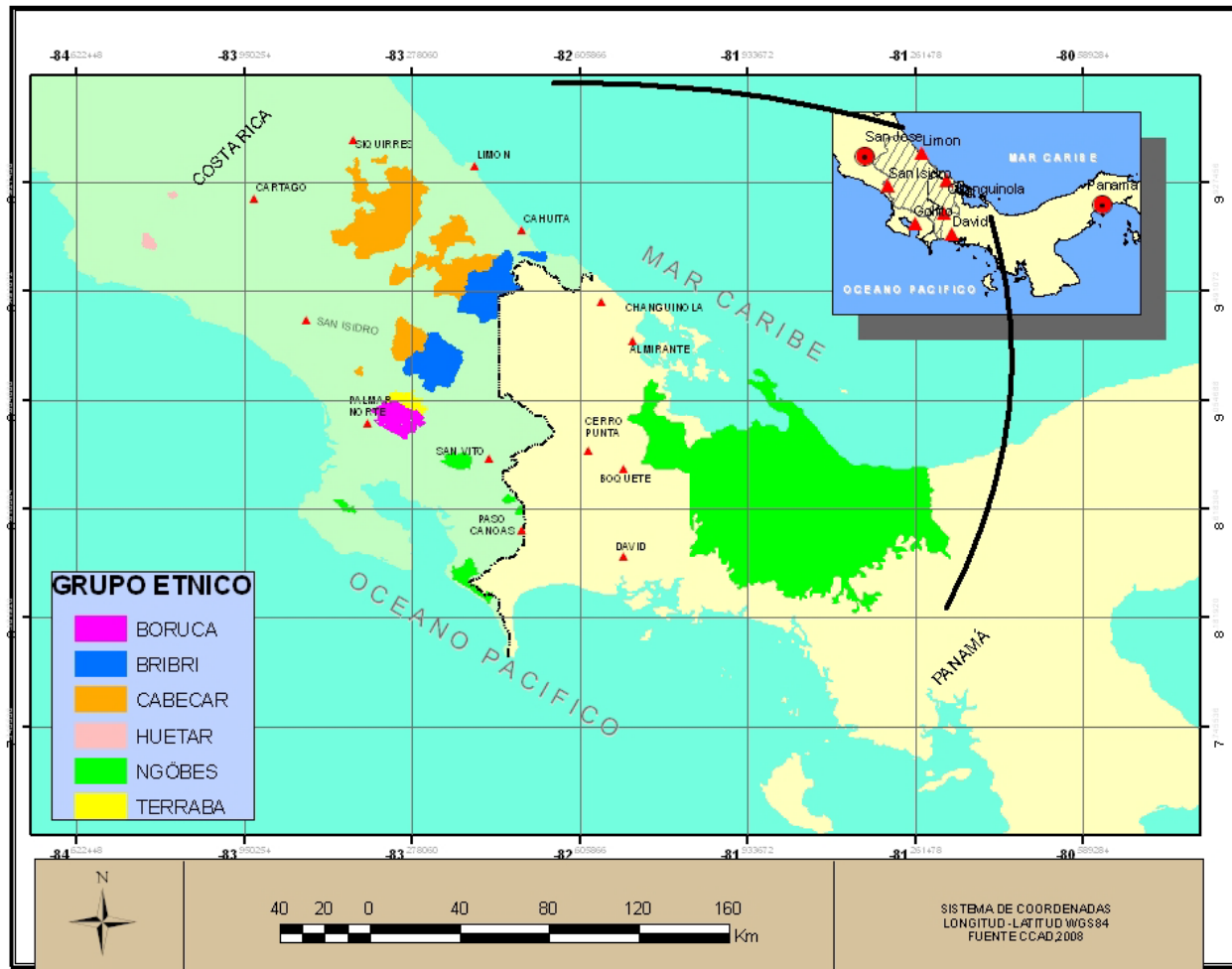
Map 1. Overview of the WH Site Talamanca Range La Amistad Reserves/La Amistad National Park – Costa Rica and Panama (taken from Watson, V., C.Borge & J.A., García. 2011. Consultoría Evaluación Ambiental Estratégica Transfronteriza para el sitio Patrimonio Mundial Reservas de la Cordillera de Talamanca-La Amistad/Parque Nacional La Amistad; Costa Rica-Panamá)



Map 2. River systems in WH Site Talamanca Range La Amistad Reserves/La Amistad National Park – Costa Rica and Panama (taken from Watson, V., C. Borge & J.A., García. 2011)



Map 3. Overview of all existing and identified hydropower plants around the WH Site Talamanca Range La Amistad Reserves/La Amistad National Park – Costa Rica and Panama (taken from Watson, V., C. Borge & J.A., García. 2011) NB the indicated status for the stage of development (study, feasibility, construction, operation) is not necessarily correct for the moment of the reactive mission. The area potentially affected by a road construction between Boquete-Bocas del Toro is indicated (by authors).



Map 4. Indigenous territories in Eastern Costa Rica and Western Panama (taken from Watson, V., C. Borge & J.A., García. 2011) Note Naso-Teribe are not mentioned because their territory has not (yet) been formally recognized

Annex VI – Photographs

Photographs taken during mission



Stakeholder meeting in Las Nubes; Chiriquí. 12 January (© Robert Hofstede).



Stakeholder meeting Changuinola. 13 January (© Robert Hofstede).



Community meeting Rancho Quemado (near Bonyic dam). 13 January (© Robert Hofstede)



Meeting with IUCN National Committee. 15 January(© Robert Hofstede).



Debriefing to Minister of Environment. 15 January(© Robert Hofstede).



Bonyic dam and part of reservoir. 13 January(© Robert Hofstede).



CHAN 75 dam and part of reservoir. 14 January(© Robert Hofstede).



Hydrobiological station (for farming native fish) under construction near CHAN75 dam, 14 January (© Robert Hofstede).



Recent deforestation, seen from CHAN 75 generator station, less than 2 km from WH site. 14 January.
(© Robert Hofstede)

Photographs delivered to the mission by FUNDICEPP:



Comunidad de Guadalupe y Entre Ríos, Corregimiento de Cerro Punta. Fincas al borde del PILA que han avanzado hacia el bosque primario en los últimos años.
(© FUNDICEPP)



Área de Entre Ríos, Corregimiento de Cerro Punta. Fincas al borde del PILA que se están expandiendo hacia el PILA



Hay otros casos donde los agricultores inician cortando detrás del bosque, lo cual no se observa si no se entra a las fincas. Una vez talado el bosque dejan un borde de vegetación para no dejar visible el daño.

(© FUNDICCEP)



Area de Monte Azul, comunidad de Entre Ríos, Corregimiento de Cerro Punta.
Fincas al borde del PILA que están expandiendo hacia el PILA

(© FUNDICCEP)

COMUNICADO

Centro de Incidencia Ambiental (CIAM), Alianza para la Conservación y el Desarrollo (ACD), CEDETENG, Coordinadora Bugabeña contra las Hidroeléctricas, FUNDICEPP, MODETEAB, ODESEN, ANAI, ASAMCHI, Alianza para la Conservación de la Biosfera (ACB), Fundación PROMAR, Alianza Bocas y AMIPILA alertan sobre irregularidades que atentan contra el Parque Internacional La Amistad (PILA) y su zona de amortiguamiento.

Cerro Punta, Chiriquí. Sábado 19 de diciembre de 2015. En el marco de la próxima visita de la Misión de Verificación de UNESCO al Sitio de Patrimonio Mundial del Parque Internacional La Amistad (PILA) ubicado dentro de Panamá y Costa Rica, varias ONG ambientales, movimientos sociales y comunidades panameñas hacen un llamado público sobre el preocupante estado de la zona y la inadecuada gestión ambiental que afecta esta zona de valor universal excepcional.

Al respecto, las ONG y movimientos sociales abajo firmantes, hicieron del conocimiento público una serie de actividades ilícitas y amenazas que contradicen los principios de conservación y sostenibilidad ambiental que se requiere en las políticas públicas:

- La expansión de las actividades agropecuarias y tala que se incrementan en la zona de reserva natural, que tienen impactos negativos en la integridad ecológica de los ecosistemas y que provocan el cambio negativo y degradación del suelo.
- Los graves daños ambientales que han producido las hidroeléctricas en construcción y operación que destruyen la conectividad acuática entre los ecosistemas marino costeros y los ecosistemas del PILA, y los que puedan ocasionar los proyectos en diseño final o trámite como Changuinola II y otros en el área pacífica. Cabe destacar que existe una petición del Comité del Patrimonio Mundial de que toda la construcción de las presas se detuviera hasta haber realizado una Evaluación Ambiental Estratégica Transfronteriza.
- El aumento de la ganadería extensiva con el apoyo del gobierno central a través de las entidades competentes en ese tema: MIDA, el Banco de Desarrollo Agropecuario (BDA), el Banco Nacional de Panamá, el Ministerio de Ambiente y ANATI.
- Los posibles proyectos mineros planteados por el MICI, a través del mapa de concesiones mineras de Panamá, en el sitio de patrimonio mundial del Parque Internacional La Amistad.
- La promoción, proliferación y construcción de termoeléctricas que afectarán la calidad del aire, la salud humana, la vida marina de la zona y los ecosistemas.
- La promoción por parte de empresarios y multinacionales financieras internacionales para la construcción de una carretera que conecte Puerto

Annex VIII – List of documents received during the mission

Document	Author	Description
EIA Bocas del Toro Energía Adecuación	URS	Complete Environmental Impact Assessment of adapted proposal for Bocas del Toro (CHAN 140) hydroelectric project (2015)
Informe de alcance de la evaluación ambiental estratégica (EAE) - “Ecaso de el sitio de patrimonio mundial de las reservas de la cordillera de talamanca – la amistad /Parque Internacional la Amistad”	Ministerio de Ambiente Panama	Proposal from Panama Ministry of Environment for SEA (November 2015)
TDR-Elaboración EAE-PILA	Ministerio de Ambiente Panama	Terms of Reference for contracting a consultancy firm to execute SEA. November 2015
Draf progress report SEA-PILA	BEPadvisors/MiAmbiente	Proposal from consultancy firm on the approach and methodology of SEA. November 2015.
Estudio de flora y estructura sociológica del polígono de concesión otorgado a Hidroecológica del Teribe, S.A. Bosque Protector Palo Seco	José A. Polanco, Alejandro De Sedas M. y Deibit J. Hernández	Study on flora of Bonyic dam influence area
Seguimiento Biológico. Fauna Acuática y Evaluación Socioeconómica de la Pesca en el Punto medio-bajo de la Quebrada Bonyic, y Bajo de los Rios Teribe y Changuinola para el Proyecto Hidroeléctrico BONYIC.	Jorge A. García R. y Miguel A. Forero O.	Study on freshwater fauna and importance for fisheries in Bonyic dam influence area
Monitoreo de las especies acuáticas peces, crustáceos y plancton. Informe final 2014. Central hidroeléctrica Changuinola	M.Cs. Ruth G. Reina H.	Evaluation of freshwater fish diversity after CHAN75 dam closure and comparison to pre-construction conditions. 2014
Estado actual del proceso de concesión: Hidroeléctrica Changuinola II	Ministerio de Ambiente Panama	Clarification of current status of CHAN140 dam, mid 2015
Mapas PILA	Ministerio de Ambiente Panama	Collection of thematic maps of PILA (Panama side) 2015
Aviso de Consulta Pública	Empresa de Generación Eléctrica, S.A. (EGESA)	Public call for comment on EIA CHAN 140
Comentarios Changuinola II	Alianza para la Conservación y el Desarrollo (ACD)	Reply to public call on EIA CHAN 140 by ACD
Datos Personal SINAC PILA	SINAC	Number of staff of protected areas Costa Rica
Resolución IA	Ministerio de Ambiente Panama	Decision by MiAmbiente accepting environmental impact study CHAN140
Informe memoria 2014_19102015	Ministerio de Ambiente Panama	Report on management effectiveness protected areas Panama 2015

Presentations during mission

Manejo del PILA Pacífico	Ministerio de Ambiente Panama	Presentation by MiAmbiente staff overview of current management of Pacific side of PILA (11 January)
Sitio de patrimonio mundial la amistad – reservas de la cordillera de Talamanca /Parque Nacional la Amistad	Ana Maria Monge Ortiz y Luis Sanchez Arguedas	Presentation by SINAC about site management Costa Rica (11 January)
Presentaciones Monitoreo Biológico Bonyic	Hidroecología del Teribe	Presentations on flora, terrestrial and freshwater fauna before and after Bonyic dam construction , presented to the Mission 13 January 2016.
Modelo de una Operación Hidroeléctrica Responsable	Ing. Luis Antonio Galán	Presentation by AEC Changuinola about CHAN75 (14 January)
Presentación Impacto Social, Bocas del Toro Energía	Bocas del Toro Energía	Presentation to the mission by Bocas de Toro Energy about their plans for social impact management (15 January)