

PANDO-MONTE LIRIO HYDROELECTRIC POWER PROJECT (2266/OC-PN) - PANAMA

MANAGEMENT'S PROPOSED ACTION PLAN IN RESPONSE TO THE INDEPENDENT CONSULTATION AND INVESTIGATION MECHANISM'S COMPLIANCE REVIEW REPORT

1. Introduction

On October 24, 2012, Mr. Werner Kiene, Chair of the Compliance Review Panel of the Independent Consultation and Investigation Mechanism ("ICIM"), presented the Final Compliance Review Panel Report for the Pando and Monte Lirio Project to the Board of Executive Directors (the "Board"). The Board requested Management to produce an Action Plan addressing the following; i) project compliance with Bank environmental policies , ii) cumulative impact on the Chiriquí Viejo River (CVR) basin , iii) integration between the Bank's public and private sectors, and iv) disclosure of information. This document sets forth the requested Action Plan, including a schedule for implementation and responsible parties.

A. Project aspects

With respect to the Project, it is worth highlighting the significant progress made since the initial findings of the ICIM:

From an environmental perspective, the ecological flow study was completed confirming that the 10% minimum flow contemplated for the Project was expected to be adequate with some additional flow releases when incremental flows from the tributaries are very low, and implementation of additional mitigation measures, such as aquatic habitat restoration and improvement, capture, transport and release of target species of fish etc. Following the Bank's recommendation, the Borrower has agreed to and obtained approval from the National Environment Authority ANAM (*Autoridad Nacional del Ambiente*) to implement a variable flow design which will improve their capacity to regulate the river flow under minimal water conditions.

The Draft Ecological Flow Management Plan (EFMP) was delivered on September 10, 2012 to IDB. The Bank has confirmed that the overall quality of the ecological flow study is fit for disclosure purpose and that the mitigation measures recommended in the draft EFMP are appropriate. IDB, supported by IFC, has requested additional details from the Borrower regarding the implementation of the EFMP, involving specific timelines, allocation of responsibilities, monitoring actions and related costs (including capital expenditures and operating expenses). The Borrower has been informed that such information must be available before the next disbursement.

The Bank's Environmental and Social Consultant visited the project site in September 2012 and confirmed that the Corrective Action Plan (CAP) agreed between the Lenders and the Borrower is being adequately implemented to address the identified issues related to water contamination and road conditions (see Annex 1 for CAP details). Wastewater generated by tunnel excavation is now properly treated prior to discharge. Participatory monitoring involving representatives from affected communities confirmed that wastewater discharged in the Quebrada La Mina meets applicable standards. The Borrower has also fulfilled its commitments for maintenance and repairs of public roads used for construction of the Project as provided in the Memorandum of Understanding signed on November 7, 2011 with the Ministry of Public Works (MOP) and other hydropower projects developers in the same river basin (CILSA and Hidrocaizán).

From a cumulative impact perspective, the Bank is taking advantage of an existing Technical Cooperation (ATN/MC-11366-PN) originally prepared by SECCI to deal with risk prevention and management of the watershed due to climate change, and will be complementing the Terms of Reference to strengthen the component of management of hydrological resources in the CVR basin in order to address recommendations of the ICIM. The contract for the development of the Watershed Management Plan for the CVR under the Technical Cooperation with ANAM was awarded to the Centro Agronómico Tropical de Investigación y Enseñanza (CATIE) and is waiting for final signature by the Contraloría of the Republic, which is expected by January 31st, 2013.

B. Bank aspects

From an internal collaboration perspective, in 2009 the Pando Monte Lirio project was very carefully selected out of a number of hydro power projects by SCF and VPC. From the beginning, SCF and ESG have collaborated closely with ESG driving the safeguards compliance process. Important lessons learned were drawn from the review and structuring of the Pando and Monte Lirio project. These have been taken into account for subsequent recent hydropower projects, such as Chaglla (Peru) and Reventazón (Costa Rica). These projects were successfully structured from an environmental viewpoint by SCF and ESG, ensuring adequate management of the ecological flow and a thorough analysis of the cumulative impact early on in the project analysis. Also, since September 2012, two ESG specialists have been assigned to work within SCF, and a third since November 2012, providing a much closer collaboration process within the project team.

With respect to the Bank internal public / private sector collaboration perspective, the more recently revised country strategy and country programming processes have allowed for a much closer and earlier collaboration and alignment of the NSG interventions in each country. VPP has been working since early 2011 with VPC to improve the processes of integrating NSG inputs into country strategies. There is now an agreement regarding milestones of the VPP participation in this process. Since coordination with VPC began, there has been an increase in the level of NSG participation and an improvement in inputs from the NSG windows. In this regard, SCF has strongly contributed, by participating in the process from the earliest stages, by assigning country coordinators to better prepare the inputs from all SCF divisions, by actively contributing to the preparation of VPP Country Perspectives, and by engaging with VPS specialists regarding policy and sector notes prepared for each strategy. In line with country strategies, SCF has efficiently contributed to the country programming exercises, providing relevant and timely inputs.

2. Proposed Action Plan

In order to address the different Project and institutional issues as well as opportunities put forward by the Board, the present Action Plan proposes specific activities, allocates responsibilities and sets realistic deadlines in relation to the ICIM report for the Pando and Monte Lirio project.

Panel Recommendations	Actions	Responsibility	Timing
Project Level			
1. Solve the Ecological Flow Issues.	Submit the Ecological Flow Management Plan (EFMP) in form and substance satisfactory to all Lenders.	EISA	January 31, 2013
	Disclose the EFMP on IDB's website once in form and substance acceptable to the Bank.	IDB	March 15, 2013
	Consult with affected parties and relevant stakeholders on the EFMP.	EISA	February 15, 2013
	Implementation of the EFMP <ul style="list-style-type: none"> Construction related actions 	EISA	According to appropriate construction schedule

	<ul style="list-style-type: none"> Operation related actions 		Ongoing with periodic monitoring and reporting to Lenders
	Finalize the EFMP and confirm commitment related to its implementation and monitoring.	EISA	March 15, 2013
	Develop and implement a mechanism for the affected parties to monitor adequate release of the ecological flow: <ul style="list-style-type: none"> Principles governing such mechanism agreed with the affected parties Mechanism fully developed Mechanism adequately implemented 	EISA	March 1 st , 2013 Prior to commencement of operations Ongoing with reporting to Lenders
2. Devote specific attention to concerns about Project-induced road damage, erosion, water impurity, and related water quality.	Monitor and ensure continuous implementation of the Project's Environmental and Social Action Plan (ESAP) and Corrective Action Plan (CAP) agreed between the Lenders and EISA (Annex I).	Lenders	Ongoing
3. Enforce consistency of follow-up to supervision findings.	Report on compliance with the ESAP and CAP to IDB Management and ensure that incompliance, if any, is addressed diligently by EISA. Disclose on IDB's website summary monitoring reports on a semi-annual basis.	IDB	Ongoing with periodic monitoring and reporting to Lenders On a six-monthly basis

			starting first semester 2013
Basin level			
4. Consider additional support to the Borrower and Panamanian environmental authorities to find technological and institutional solutions that minimize the environmental impacts of the Project	Strengthen component on hydrological resources management for the development the Watershed Management Plan for the CVR . The timing of this activity depends on an agreement with ANAM.	IDB/ANAM	February 28 th , 2013
	Support ANAM for the implementation of an adequate institutional framework for the management of cumulative impacts at the scale of the CVR basin, including implementation of the Watershed Management Law and creation of river basin committees	IDB/ANAM	June 31, 2013
	Support to ANAM for the public consultation activities related to the development of the CVR Watershed Management Plan	IDB/ANAM	March – October 2013
	Continue to support DEG's technical assistance aiming to standardize approach of private sector hydropower developers in the CVR basin vis-à-vis management of adverse environmental and social impacts and local stakeholders' engagement.	EISA/ANAM	On-going
Country Level			
5. Continue to strengthen the environmental authorities in their responsibilities for appropriate watershed management elsewhere in the country	Explore opportunities in country dialogue with Panama to carry out a Strategic Environmental Assessment (SEA) of the energy (power generation) sector in Panama, including hydropower development, considering the broader regional context (for example in the context of SIEPAC, and possible electrical interconnection Panama-Colombia).	IDB	
IDB Level			
6. Enhance the synergies between the Bank's public and private sector investments; strategic sequencing	In any upcoming Country Strategy exercise, if Environmental Management is considered a priority on key strategic sectors where IDB's private sector investments are likely to materialize, develop environmental issues paper as an input to country strategies, including, where appropriate, recommendations in terms of development of the required institutional framework and capacity of relevant authorities on those strategic sectors.	IDB	

<p>7. Develop guidance in the steps and their sequencing to ensure that the safeguard provisions embedded in the Operational Policies are adhered to and that projects have a higher chance of success</p>	<p>Develop a guidance note for IDB staff emphasizing that prior to presenting an operation for approval by the Board of Executive Directors, the Bank must have:</p> <ul style="list-style-type: none"> a. Clear understanding of the nature and magnitude (significance) of all key adverse environmental and social impacts and risks; b. Impact mitigation strategies addressing all key adverse impacts and risks, which meet applicable IDB policy requirements and have been agreed with the client and other relevant parties (if any); and c. Demonstration of commitment and capacity by the client and other relevant parties (if any) to implement the agreed mitigation strategy, and resources for its implementation have been secured 	IDB	
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3. Action Plan Monitoring

The Action Plan will be monitored on a quarterly basis. A copy of the monitoring report will be sent to MICI. As part of the monitoring process applied to all NSG Loans, the monitoring of the specific project-related action plan's items will be included and reported to the Board on a quarterly basis in the framework of the NSG quarterly report.

ANNEX I: Corrective Action Plan (CAP) agreed between the Lenders and EISA

Issue	Actions
<p><u>1(a) Water Quality at Tunnel Discharges:</u></p> <p>Water discharged from tunnel constructions sites continues to be non-compliant with water quality standards established by Reglamento Técnico DGNTI-COPANIT 35-2000. EISA has sent warning letters to Seli requesting specific corrective measures (dated 11 Nov 2011 and 13 Jan 2012) and has emitted a total of four Certificates of Non-Conformity for water contamination at the Pando and Monte Lirio Tunnel discharges. Despite the construction of additional physical and chemical filtration tanks at both the Pando and Monte Lirio tunnel sites, monitoring conducted by Seli and EISA continue to indicate non-compliance with DGNTI-COPANIT 35-2000. Contamination of the Quebrada la Mina has allegedly resulted in negative effects to human health, livestock and agriculture among residents adjacent to Quebrada la Mina.</p>	<p>EISA shall take the following two actions to immediately resolve the cause of the most critical risks associated with water contamination at the Quebrada la Mina:</p> <ol style="list-style-type: none"> 1. Establish a written description of short-term monitoring procedures and corrective actions to ensure continuous compliance with COPANIT 35-2000 at all water discharges to the Quebrada La Mina. 2. Provide sufficient results of short term monitoring data to confirm compliance with COPANIT 35-2000 at all water discharges to the Quebrada La Mina.
<p><u>1.b Water Quality at Tunnel Discharges:</u></p> <p>[Note that 1a and 1b are the same issue. Action 1a pertains to immediate management of the issue while action 1b pertains to medium term actions].</p>	<p>EISA, in coordination with Seli, shall establish and implement:</p> <ol style="list-style-type: none"> 1. Effluent Management Plan, including a map of all discharges, technical design of water management system and specific physical and chemical management measures necessary to ensure compliance with water quality standards established by Reglamento Técnico COPANIT 35-2000 at all water discharge sites at Pando and ML Tunnel sites; 2. Water Quality Monitoring Protocol which shall consist of a continuous monitoring protocol and data registry to ensure compliance with water quality standards established by Reglamento Técnico DGNTI-COPANIT 35-2000 at all water discharge sites at Pando and ML Tunnel sites. <p>Results of ongoing water quality monitoring shall be stored in an acceptable database and used to</p>

Issue	Actions
	<p>compile water quality reports on a regular basis to document compliance Reglamento Técnico DGNTI-COPANIT 35-2000; water quality monitoring data shall be available for review at any time.</p>
<p><u>2. Unmitigated and Uncompensated Damages to Water Users Adjacent to the Quebrada la Mina:</u></p> <p>EISA's investigation of repeated complaints regarding water contamination in the Quebrada la Mina (and related impacts) submitted through the FIRC system between April and November 2011 resulted in the following conclusions: (i) water discharged at Seli's tunneling operations at the ML site does not meet DGNTI-COPANIT 35-2000 and is not regularly monitored (see above); (ii) at least 5 water users adjacent to the Quebrada La Mina have submitted complaints regarding the alleged effects of contaminated water to human health, livestock and agriculture; and (iii) the scope of agricultural damages to the five complaints has been evaluated by EISA to calculate potential in-kind compensation (completed by Clemente Vega 18 Jan 2012).</p> <p>Affected water users and complainants have received no feedback on the status of their complaint ~3 months after submission.</p>	<p>The root cause of water contamination shall be addressed through action 1 (above).</p> <p>Affected water users/complainants shall be compensated for all damages and</p> <p>EISA shall inform complainants and affected water users of the Water Quality Management and Monitoring Procedures established to resolve the root cause of their complaint. All complainants will be informed individually; communities adjacent to the Quebrada la Mina shall be informed through a community meeting or other means of public disclosure.</p> <p>EISA shall provide ongoing opportunities for Participatory Water Quality Monitoring of the Quebrada la Mina by training, equipping and including representatives of communities adjacent to the Quebrada la Mina in basic water quality monitoring activities.</p>
<p><u>3. Road Maintenance Plan:</u></p> <p>A ~12 km road segment utilized by the Project has been damaged due to construction-related traffic from hydroelectric projects constructed by CILSA, Hidrocaizán and EISA. The deterioration of the road has drawn criticism from local residents, leading to a protest and road closure carried out by residents of Volcán and Caizán on October 31st and November 7th, 2011.</p> <p>A Memorandum of Understanding was signed on November 7th, 2011 in which MOP, CILSA, Hidrocaizán and EISA agreed to: (i) temporary measures to repairs road segments within the area of influence of each respective project, and (ii) a commitment to comply with a medium term repair and maintenance plan to be established by the MOP upon completion of a</p>	<p>EISA shall establish a Road Maintenance Action Plan with specific actions, responsibilities, indicators, and deadlines in order to comply with the requirements of the Environmental Action Plan of the EIA, the terms of the Memorandum of Understanding (Nov 7th 2011), and the terms of the medium term repair and maintenance plan to be established by the MOP.</p> <p>EISA shall disclose the Road Maintenance Action Plan to relevant stakeholders through a public presentation or other disclosure meetings with the MOP, Municipality, community Representatives and local residents. Relevant stakeholders shall be included in participatory</p>

Issue	Actions
<p>technical evaluation of the road.</p> <p>As of the week of January 23rd, 2012, community complaints alleged that EISA had not complied with the terms of the road repair agreement; the road remains in poor repair.</p>	<p>monitoring to ensure compliance with the Road Management Action Plan.</p> <p>EISA shall establish an accident registry (through the Traffic Safety Plan - <i>Plan de Seguridad Vial</i>) to monitor the safety of roads within the area of influence of PyML in coordination with local governmental authorities, and shall use the results of the accident registry to improve road signage, management and safety.</p>
<p><u>4. Local Work Force:</u></p> <p>A signed agreement between EISA and the Municipality of Renacimiento states that EISA shall employ at least 25 workers from each community within the Project area of influence and in the Municipality of Renacimiento. Ongoing complaints from local residents and community representatives allege that EISA has not fulfilled this agreement and is not sufficiently favoring local workers. EISA has not provided human resources records to confirm or deny these allegations.</p>	<p>Provide employment records, or in the absence of such records, establish human resources registry (database) to confirm that at least 25 workers from each community within the Project area of influence are employed by the Project.</p> <p>Disclose status of local employment in the PyML project through meeting with community representatives and EPCs.</p> <p>Comply with the local workforce quota if insufficient local laborers are currently employed.</p>