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**DRAFT FOR DISCUSSION**

**Development of a Binational Technical Cooperation Structure**

**in the Artibonite Watershed**

**Executive Summary**

The Artibonite watershed is a large binational water body shared with the Dominican Republic with diverse and uncoordinated economic interests. These interests to the present have not presented competing water uses or challenges to the status quo provision of water services to the economically productive lower Artibonite Valley in Haiti, who have traditionally received water resources to fulfill the capacity for the delivery of water and electric services. The future however presents a much different scenario. As both Haiti and the Dominican Republic move to increase the delivery of services to alleviate poverty through economic development in the Artibonite, new and competing water uses have been identified that will require dialogue and negotiation. To facilitate this process, both countries have in place an outdated political framework, a limited diplomatic protocol, and no technical mechanism that enables neither negotiation on the political front nor open communication of technical information to support adequate and appropriate administration of the future water resources among competing water uses. These issues are being addressed by both governments through the UNDP-GEF project, “Reducing Conflicting Water Uses in the Binational Artibonite River Basin through Development and Adoption of a Multi-focal Strategic Action Program[[1]](#footnote-1),” executed by Oxfam Quebec, that is developing an agreed-upon agenda and investment and monitoring program. The project however does not provide resources for the development and function for technical bi-national structures identified for national and binational level technical coordination or for the political process to authorize a technical structure.

The following concept document briefly describes the status quo and underpinnings of the binational structure required for water administration among competing interests throughout the Artibonite. Actions to increase the effective administration of the water administration regime, expected results and indicative costs are proposed.

**Summary Situation Analysis**

The status quo is defined by historic under-use of the water resources across the binational watershed. As a driver of economic development, water use limited to electricity generation and agricultural production in the lower Artibonite valley below Haiti’s Peligre dam, referred to in this document as the “lower watershed.” At 9,600 km2[[2]](#footnote-2), it is the largest watershed on the island and, with over 70% of the national rice production, it the most important area for Haiti’s food security. The region is also characterized by poverty and economic under-performance in comparison to the potential productivity of the available water and soil resources in both Haiti and the Dominican Republic, where concurrently significant opportunities for economic development in the areas of both agriculture and electric power generation exist. These opportunities are offset by historic overuse[[3]](#footnote-3) of land resources in the mountainous regions, which comprise approximately 60% of the watershed.

The majority of the surface area of the watershed is located in the “upstream” environment that is defined for the purpose of this document as the area above the Peligre dam comprised of: (a) the Northern Artibonite Haiti, which is the area between St. Michel de l’Attalaye to the border of the Dominican Republic Rio Libón and includes the Haitian Plateau Central and (b) the Dominican Artibonito that is divided into the “Artibonito,” or the northern half of the Dominican watershed, and the “Macasias” which is the southern half of the Dominican portion of the watershed. The “downstream” environment is comprised of: (c ) the areas adjacent to and below Haiti’s Peligre dam referred to as the “*Artibonite Bas*” and (d) the “Fer-a-Cheval” sub-watershed, a long, narrow area originating in the Dominican Republic and extending through the municipality of Savannette reaching the Artibonite below the Pelige Dam at Mirabalais.

Historically, official Economic emphasis has been placed in the expansion of the irrigation perimeter in the downstream environment in the *Artibonite Bas* and on maintenance of the electric power capacity at the Peligre dam, producing approximately 54 Megawatts of power. Within this environment, the focus of water management has been the efficiency of agricultural water use and distribution and maintaining electric power generation in the downstream environment. The concerns in the upstream environment have been limited to dialogue related to the Peligre Dam in the form of in the excessive reduction in storage capacity of the Peligre Dam (estimated at 40-45% capacity remaining) attributed to sediment transport from the upstream environment. The dialogue and vision of the upstream environment has been limited to the discussion of causes and actions needed in reducing the risk of sedimentation to the dam and protecting the environmental benefits to the downstream economy. The water flow to the lower Artibonite region has been historically insured by the absence of any significant competing development plans based on water use in the upstream environment. That scenario is now changing.

The upstream environment is a poverty center for each country and is targeted for poverty alleviation within the respective national development plans. A recent binational event[[4]](#footnote-4) for energy, water, and political sector representatives organized by Oxfam Quebec, through the UNDP-GEF Binational Artibonite Management Project has identified Haiti’s upstream environment in the Northern Artibonite as an area of high agricultural potential in both the valleys and the plateau central to support a more dynamic agricultural economy and potential for electric generation in both the micro and large scale ranges. Although the calculation of the estimated agricultural perimeter is in progress, it is widely accepted that that Haiti’s conversion from artisan irrigation in this region to a formal canal system will enable the expansion of this perimeter and consequently increased water use.

Within the Dominican realm, 13 potential projects have been identified that will: (a) increase the irrigation perimeter for agricultural production in the San Juan Valley; (b) reduce water erosion in the mountainous areas and hence sedimentation in the downstream environment; and (c) generate an additional 100 to 130 Megawatts of power for the development of both the San Juan Valley and potentially Haiti’s Plateau Central. The only significant and historic water withdrawal is the small irrigated areas in Rio Limpio, El llano, and Las Matas de Farfán. Of these 13 projects, the Palma Sola Dam[[5]](#footnote-5) is under construction and the electric structure, El Corte I and II, is financed and awaiting political clearance from Haiti, as further defined below.

Although the total water balance of a future scenario assuming all of the mentioned investments were to be implemented is yet to be calculated, it is obvious that there are now competing, short-term and mid-term water uses derived from the development process of the upstream environment Previously, there had been no systematic analysis or communication on the development objectives or corresponding availability of ecosystem service availability to support these objectives at the basin level. The question therefore remains of why or how has this vision remained unrecognized, what are the political and legal implications of the development process at the binational level, and how can these trends be reversed? The following paragraphs briefly assess the economic and political processes from both the technical and political perspectives and outline alternative courses of action.

A draft Legal and Policy Analysis[[6]](#footnote-6) developed by Oxfam Quebec for the UNDP-GEF initiative defines significant gaps at the binational political level and at the binational technical level that impede inter-institutional communication in both the technical and political realms. , At the technical level, the communication between institutions is both absent and ineffective due to: (a) conflicting and competing mandates, (b) uncertainty over procedures and responsibilities to coordinate development plans and infrastructure, (c) lack of experience in managing binational technical issues related to transnational water administration; and (d) an antiquated binational legal regime.

(a) *Conflicting and competing mandates*

At the national levels, the conflicting mandates and institutional jealousies have been partially mitigated through the use of inter-institutional working groups sponsored by IADB in Haiti and the UNDP-GEF project in both Haiti and the Dominican Republic. These have been marginally effective to date in creating increased inter-institutional communication. These have not yet been successful in shifting the focus away from localized actions and towards a more broad vision of actions at the basin level. In the case of Haiti, Comite Inter-ministeriel d´Amenagement du Territoire (CIAT) and the “Artibonite Group” are examples where communication has greatly increased. In the Dominican Republic, the Energy and water working groups formed for the UNDP-GEF Artibonite Project have produced impressive results and coordinated actions as witnessed in five binational workshops to resolve technical themes ranging from cartography to joint-fact-finding missions to inspect future infrastructure sites for energy.

These baseline actions and events validate the willingness and potential to realize a broad level of technical dialog both at the national and at the binational levels. However, The current gap does not enable communication on future development plans, priority setting , and analysis of the water balance resulting.

*(b) Procedural uncertainties*

In working with the structures mentioned above, Oxfam has experienced that all of the technical agencies involved in the process feel inhibited or prohibited from dialogue with their counterparts on the other side of the border as justification for “no-communication.” The current perception is that the channel for dialogue is limited to either the Mixed Bilateral Commission or to the Ministries of External Relations (Chancelleries), or the Ministries of Planning (in RD). These are however political rather than technical structures without the capacity to discuss or resolve technical issues such as risk management, control of water flows, or consultation or analysis of water balance resulting from competing water uses. There is bilateral dialogue on very specific technical themes, such as cholera control, animal sanitation, or reforestation, as witnessed in technical inter-ministerial agreements between Public Health Ministries, Agriculture, and Environment respectively. There is no clear protocol in place that enables the technical agencies to sustain dialogue over multiple and inter-connected issues relating to complex array of technical aspects characteristic of basin management at the binational level.

The current structure of the Mixed Bilateral Commission is designed to discuss overarching issues. It does not provide for technical management or inter-sector dialogue on technical issues or problems among line agencies at the binational level. An example of this is the planned electric facility on the Artibonite River El Corte I and II. The line agencies involved had no idea of how to initiate the binational dialogue related to this structure. They had no idea who to talk to or negotiate with, at the national level to begin the binational dialogue.

At the political level, there is also disagreement in each country over who will manage the binational dialogue. In the Dominican Republic, the Ministry of Economics, Planning, and Development is taking the task of organizing and defining the roles and responsibilities. These could include bilateral ministerial agreements or an arrangement within the Bilateral Mixed commission. In Haiti, there is similar question over the relationship between the technical aspects of water management and how these will work within the existing political structures fo the Ministries of Exterior, Line Ministries, and the representation to the Bilateral Committee and its sub-committees. None of the mentioned political structures is prepared to manage the technical aspects of basin management required in real time.

*(c) Lack of experience in managing binational dialogue on water issues*

A second problem identified in this process by Oxfam Quebec under the UNDP-GEF project is that the political sector in neither country has experience in how the binational dialogue is managed with respect to water issues in specific basins or the technical structures utilized for real-time management of technical issues. Often, the political issues and the technical water management issues are confused as are the types of political and technical management structures needed.

For example, the management of the chain of water flow across the structures is a key technical issue in times of excessive rainfall and drought. Dam managers at Peligre would need to be aware of the chain of actions from all structures upstream, in real time, and in a language they can understand, as part of the risk management portfolio. Likewise, in times of drought, decreased periods of water storage and flow due to the effects of climate change will also need to be coordinated. This is an example of the practical nature of the operational aspects of a structure such as a River Commission. At present there is no technical structure, neither authorized nor ad hoc, that can assume the role of in-situ decision-making and communication or the role of technical interpretation and council to the political sectors of each government.

The ensuing political question is what are the political agreements needed to authorize this level of technical coordination, how does this structure relate or inform the political structures, and finally, what are the political aspects that are beyond the authority of a technical structure, such as a river commission.

This gap has generated assumptions with respect to the specific issues to be addressed and has created unfounded worries with respect to the negotiation process and how technical structures should function. Simply stated, both governments require a new skill set to meet their common technical challenges and need for coordination and consultation.

(d) *Antiquated binational legislative regime*

The binational political regime is antiquated and ineffective. Oxfam’s Draft Legal and Policy Assessment indicates that the effective political regime is defined by 4 principal pieces of legislation from 1929[[7]](#footnote-7)[[8]](#footnote-8)(2 agreements), 1936[[9]](#footnote-9), and a corollary from 1978[[10]](#footnote-10). In effect, technical cooperation is possible between line agencies or ministries at the binational level, but in a practical sense, those agencies must have the authority (or perceived authority) to initiate the dialogue, such as that that the Ministries of Planning have currently in place. The original agreements define certain sub-watersheds as “international” such as Libón, Artibonito, Macasias, but do not include the water flow from key tributaries to those water courses. This will lead to misunderstandings at the basin level. For example, the proposed structure at Palma Sola in the Dominican Republic is not included in the binational agreements meaning that no Haitian consent is required. Although the mentioned site is very small and perhaps insignificant, the sum of the 13 structures is the actual political issue that requires dialogue, planning, and understanding. Under the same regime, Haiti can put structures on the Samana, Frio, or l’Oceane Rivers without consent of the Dominican Republic. Meanwhile, these would place water management constraints on the proposed electric power generation at El Corte I and II.

**Problem Statement:**

The existing UNDP-GEF initiative is working to bundle these concepts into a palatable Strategic Action Program for both governments. Once identified, the current project will not have the financing available beyond December of 2014 to take actions that will develop the identified needed technical structures and political actions that will provide for the immediate and mid-range management of pressing river basin issues. To insure adequate ecosystem services and an adequate planning and management of the hydrologic and land-based resources to support a long-term economic development of the Binational Artibonite watershed that does not curtail historic and existing water uses, improvements in the technical and political frameworks are necessary at the binational level.

To achieve this end several outputs are required: (a) an effective technical structure for inter-institutional coordination and communication in real-time at the basin level; (b) an updated political framework agreement that authorizes the technical structure and that responds to policy gaps; (c) ongoing support to a social network at the national levels that can support the field level actions over a large geographic area.

**Key Outputs**

1. A functioning binational technical structure or commission.

A binational technical commission is necessary to make decisions about water flow in real time in times of excessive rainfall, drought, or emergency. In addition to real-time functions, a technical organism is necessary for the communication between key line agencies from each country on the planning, monitoring, and tracking of information on present and future structures. The structure is a necessary conduit for planning at the binational level and for providing technical information and interpretation to the political sectors of each country. Given the gaps presented, the steps to the development of said commission would be:

1.1. Orientation of the political sector of each country on the technical aspects of binational water management, common structures utilized between nations in Latin America, and the political authorizations necessary to achieve these structures. This would involve educational presentations to the political sectors by visiting experts, a joint fact-finding mission to one or two of the sites of binational management for the purpose of dialogue on the structure and terms of reference of the Artibonite structure.

1.2. Development of the structure and function of the binational technical structure: This would involve national level political meetings to debate the structure and function of the proposed body and binational negotiation meetings to agree upon the final proposal and to define the political actions needed to authorize the structure and finance it.

1.3. Authorization of the political structure: Under the present laws, there are three options: (a) the creation of a technical structure under the inter-ministry agreements between the ministries of planning, or (b) authorization of the structure within the Bilateral Mixed Commission; (c) authorization by Haiti’s Parliament and the Dominican Congress to provide authority to make real-time decisions. This will require: strategic meetings to develop the end product and a critical pathway, binational workshops to develop the agreed upon proposal for presentation to the governments and final political action to authorize the structure.

1.4. Installation of the structure which requires: logistics (Office space, hardware, software and communications); training in the form of visits to a similar structure in Latin America, a technical visit from one of the Latin American structures, and training

1.5. Installation of the data management system and software for the necessary modeling and data management at the basin level. This concept note does not consider the cost of installation of measuring stations in either country. Rather the cost of installing the capacity for a watershed model, WEPP or other.

2. An updated political agreement for the countries.

An updated political agreement is necessary to clarify the binational relationships within which the technical body will function. It is not necessary to have a political agreement updated in order to have a technical body. These can be authorized through separate processes in a parallel fashion. A political agreement can be upgraded by (a) creating an additional agreement that fills the gaps in the existing agreements, or (b) creates a new agreement that replaces and upgrades the former agreements.

2.1. Negotiation of the political instrument to be developed. A binational workshop and lobby at the national and binational levels to reach an agreement on what the end product would be.

2.2. Development of a Draft Agreement. This would include developing the draft agreement with updated information on flows and sedimentation, national level workshops and a binational workshop to develop the agreement.

2.3. Approval of the agreement: Facilitation, national, and binational meetings on the approval of the final agreement and presentation to national authorities for political action. Lobby or follow-up on final political action. A binational event to commemorate the agreement in-force.

3. Support to the Watershed Management Councils

The watershed management councils are being developed by the UNDP-GEF Initiative. These structures will provide local support and inputs to line agencies and to an overarching watershed management council. These will require ongoing logistical support, further development, and require education and accompaniment in the short term to enable them to meet and discuss water and soil development and local development needs. Logistically, they are the local support to the commission proposed. These would require logistical support for meetings, education on integrated water resources management, and in some cases support in developing statutes. The commission expected would need to maintain communication upstream to the political sector but also downstream through the watershed councils.

Indicative Inputs (Budget)

The inputs described are indicative and assume a 3 year period of 2014 to 2016.

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| Project Staff includes Binational (DR) and Haiti Coordination, a minimal support staff to manage events and meetings and accompany the technical process. Expert Consultants | $ 500,000 |
| Logistical support (airfares, meetings, training trips, binational negotiations). | $ 100,000 |
| Installation and training of the Technical Commission | $ 300,000 |
| Support to Watershed Management Councils | $ 100,000 |
|  | **$1,000,000** |

A management fee would be negotiated based on the execution of the definitive project budget.

Indicative Management Arrangements

The management arrangements for the proposed initiative would be negotiated. At present, we visualize the continuation of the existing initiative being managed by the Project Management Unit for the UNDP-GEF Binational Artibonite Project by Oxfam Quebec through the existing project limit of December 2014 until 2016 with additional funding described above. The Unit is installed within both the Dominican and Haitian Governments.. This structures have proven effective for promoting the binational dialogue as required. This will allow for effectiveness, efficiency, continuity and synergies with the ongoing political dialogue and process. The initiative will complement the core staff with targeted consultancies from regional entities to facilitate the binational political process for (2.2 and 2.3).

The existing binational project management structure includes the Ministries of Planning, Environment, and Agriculture of each country. The binational board would need to be expanded to include the Ministries of Exterior Relations and representatives of the Bilateral Mixed Committee as authorized by the governments. This board would include IDB participation as the donor agency. Oxfam Quebec is currently Executive Secretary of the board with a voice but no vote.

The national level boards in place for the UNDP-GEF initiative are the same line ministries as described above with expanded ministries. The national board would include all of the members of the Artibonite group in Haiti, or, utilize CIAT as the platform. This aspect would need to be negotiated. On the Dominican side, the existing national board is proving to be a broad-based and effective platform.

1. Oxfam Quebec manages the UNDP-GEF (63758) International Waters project, through an active binational board of directors composed of ministries of environment, agriculture, and planning. Oxfam is facilitating the binational political dialogue for the watershed through the Ministries of Planning of each country and the Bilateral Mixed Committee. The information contained herein is the opinion of Oxfam Quebec only and utilizes information from the mentioned project in process of development and publication. [↑](#footnote-ref-1)
2. Approximately equal to the size of the island of Puerto Rico [↑](#footnote-ref-2)
3. “overuse” indicates land uses that are not compatible with the biophysical and edaphic characteristics of the land. [↑](#footnote-ref-3)
4. May 27-31, 2013, the event concluded with a joint political declaration by representative of the Bilateral Mixed Commission embracing investments in energy, water and transformation of Haiti’s cooking fuels. [↑](#footnote-ref-4)
5. This structure does not require authorization from Haiti under current binational agreements, others require consultation, which is a key element of the future actions indicated in this document. [↑](#footnote-ref-5)
6. Oxfam Quebec, UNDP-GEF project , Draft Legal and Policy Analysis of the Binational Artibonite River Basin, 2013, unpublished project document, UNDP-GEF 63758 [↑](#footnote-ref-6)
7. 1929(a); Dominican-Haitian Border Treaty of 1929 [↑](#footnote-ref-7)
8. 1929 (b); Treaty for Peace and Permanent Friendship and Arbitration of 1929 [↑](#footnote-ref-8)
9. 1936; 1936 Protocol for the Revision of the Dominican-Haitian Border Treaty [↑](#footnote-ref-9)
10. 1978; Convention for the Construction of a Diversion Structure on the Pedernales River and additional protocol [↑](#footnote-ref-10)