II. REPORTE DE EVALUACIÓN AMBIENTAL

1. INTRODUCCION

2. RESUMEN EJECUTIVO EN INGLES (Executive Summary in English)
   2.1 INTRODUCTION
   2.2 PROJECT COMPONENTS
      2.2.1 Subprojects Financed Under PASCT
   2.3 SOCIAL, ENVIRONMENTAL AND VULNERABILITY CHARACTERIZATION
      2.3.1 Social Aspects
      2.3.2 Environmental Aspects
      2.3.4 Vulnerability and risks under potential natural disasters
   2.4 ENVIRONMENTAL AND SOCIAL ANALYSIS
      2.4.1 Evaluation of Environmental-Social Impacts
      2.4.2 Actions and measures for handling of potential negative environmental impacts
      2.4.3 Environmental Analysis
      2.4.4 General Procedures for Environmental and Social Management

3. EL PROYECTO
   3.1 Objetivo
   3.2 Alcance
   3.3 Tipos de subproyectos a financiarse con recursos del PASCT

4. CARACTERIZACION SOCIAL, AMBIENTAL Y VULNERABILIDAD
   4.1 Aspectos Sociales
   4.2 Aspectos Ambientales
   4.3 Patrimonio Cultural y Físico
4.4 Vulnerabilidad y riesgos ante potenciales desastres naturales.

5. **ANÁLISIS AMBIENTAL Y SOCIAL**
   
   5.1 Análisis de las Políticas de Salvaguarda Ambiental y Social
   5.2 Análisis Ambiental General del Proyecto
   5.3 Análisis Ambiental de la muestra de subproyectos "APL1"

6. **CUMPLIMIENTO DE LA LEGISLACIÓN AMBIENTAL**

7. **VIABILIDAD AMBIENTAL DEL PROYECTO**

ANEXOS: Reporte de Evaluación Ambiental
   Anexo No. 1: Plan de Inversiones del PASCT
   Anexo No. 2: Fichas Ambientales de Evaluación Preliminar
1. INTRODUCCIÓN

El Gobierno de la República Dominicana (GdRD) a través de la Secretaría de Estado de Economía, Planificación y Desarrollo (SEEPyD), ha solicitado al Banco Interamericano de Reconstrucción y Fomento (BIRF), el apoyo financiero para la ejecución del Proyecto de Agua y Saneamiento en Centros Turísticos (PASCT), bajo la modalidad de “Préstamo con Programa Adaptable (APL)”, con el fin de consolidar la estrategia nacional del gobierno dirigida a atender las necesidades relacionadas con el abastecimiento de agua potable y manejo de las aguas servidas en los principales centros turísticos, especialmente en Puerto Plata.

El GdRD, conciente de la importancia de la incorporación de la dimensión ambiental y social en el Proyecto, y en cumplimiento de las Políticas de Salvaguarda Ambiental y Social del Banco, ha preparado con el apoyo de la SEEPyD el presente Reporte de Evaluación Ambiental (REA), en cumplimiento de la Política de Evaluación Ambiental (OP-4.01) del Banco. El objetivo del REA es presentar un resumen de los aspectos relevantes llevados a cabo durante la preparación del Proyecto. Este Reporte incluye específicamente una evaluación ambiental general del Proyecto; una identificación de las Políticas de Salvaguarda que se activan en el Proyecto; un breve resumen de los estudios e instrumentos desarrollados durante la etapa de preparación del Proyecto; y la evaluación ambiental de una muestra de subproyectos a ejecutarse durante el primer año. Asimismo, el REA incluye un resumen del Plan para el Fortalecimiento de la Gestión Ambiental y Social; y se concluye con la viabilidad ambiental del Proyecto.

Cabe señalar que este documento ha sido desarrollado siguiendo las directrices de la Política antes mencionada y se contó con el apoyo técnico del Banco para el desarrollo del mismo.

Cabe señalar que este instrumento ha sido desarrollado siguiendo las directrices de la Política antes mencionada y se contó con el apoyo técnico del Banco para el desarrollo del mismo. Adicionalmente, el documento fue presentado y socializado a través de dos talleres, uno a nivel institucional y otro a nivel comunitario, tal y como se presenta la evidencia en el número (V) de este PEA. Asimismo, ha sido publicado en la página WEB de la SEEPyD (www.stp.gov.do) y del BIRF (www.worldbank.org) a través de su base de información (INFOSHOP).

2. RESUMEN EJECUTIVO EN INGLES (Executive Summary in English)

2.1. INTRODUCTION

The Government of the Dominican Republic (GDR) through the State Secretary of Economy, Planning and Development (SEEPyD), has requested
from the World Bank (WB), the financial support for the execution of the Water and Sanitation in Tourism Areas Project with the use of an Adaptable Program Loan (APL). In order to support the Government's comprehensive program to improve the provision of efficient and sustainable water and sanitation services in the Dominican Republic's tourist areas and, thus, improve coastal water quality, this APL has been requested.

The GDR, in consideration of the environmental and social aspects of the Project, and in fulfillment of the Bank Environmental and Social Safeguard Policies (OP 4.01), has prepared the following Environmental Evaluation Report (EER). The objective of the EER is to present a summary of the relevant actions carried out during the preparation of the Project including (i) a summary of the environmental action plan; (ii) a summary of the involuntary resettlement framework; (iii) a summary of the Plan for the strengthening of the Environmental and Social Management of the Project; and (iv) an evaluation of the environmental viability of the Project.

The EER was presented at two workshops in the country, one at the institutional level and the other at the community level, and was published on the web at www.stp.gov.do and www.coraaplata.com.do.

2.2. PROJECT COMPONENTS

The components of the proposed project are:

Component 1: Technical Assistance for Sector Development (US$ 3.3m of Bank financing)

The component would finance technical assistance for the development of a national strategy for the water and sanitation sector. The component would finance consultant services for the preparation of:

b. Institutional Modernization and Strengthening of Utilities.
c. Strategic environmental Assessment of the north coast.
d. Environmental Education and Public Participation Campaign.

Component 2: Water and Sanitation Services Rehabilitation and Expansion (estimated cost US$26.8 million)

This component will finance:

a. Investments to rehabilitate, expand and improve sewage networks, the rehabilitation of a wastewater treatment facility in Puerto Plata and the potential construction of submarine outfalls in Puerto Plata and Cabarete.
b. Technical assistance to improve the performance and efficiency of the services provided by CORAAPLATA and to prepare detailed designs for this Project.

Component 3: Program Administration (estimated cost US$3.9 million)
Component 3 will finance costs associated with program management. Loan proceeds will be used to finance Project related audits, equipment to strengthen the PCU and CORAAPLATA, as well as individual consultants, with qualifications and experience following the terms of reference acceptable to the Bank, for the following purposes: (i) procurement, external advisory services and (ii) monitoring and evaluation.

2.2.1 SUBPROJECTS FINANCED UNDER PASCT

The Project, under Component 2 (Water and Sanitation Services Rehabilitation and Expansion) anticipates the construction of the following types of subprojects: i) Projects of construction and rehabilitation of sewage systems, ii) rehabilitation of pumping stations and treatment plant; and iii) construction of submarine outfalls.

Within these the Project will specifically develop the following:

**Integral Sanitary System of San Felipe de Puerto Plata:** This subproject contemplates the execution of a feasibility study of the integrated sanitation system and, based on the results of this study, the rehabilitation of existing treatment plant and the works for the final disposal of the treated effluents by means of the construction of a submarine outfall.

The current treatment plant consists of a lagoon system made up of four cells, in two parallel lines of treatment. The proposed works consist of the improvement of backfilling, the correction and cleaning of lagoons bottoms, the replacement of the control and ventilation systems and the rehabilitation of the hydraulic mechanisms. The works also include the general adjustment of the facilities and perimeter fencing.
For final disposal of the treated water the construction of submarine outfalls will be studied further. The sizing and final location of this submarine outfalls will be decided based on the feasibility studies and evaluation of the environmental impacts, so that the acceptable standards for dilution and distance of the disposed water are met, in order not to impact the ecosystems of interest in its surroundings, particularly the coral reefs. In order to meet these objectives it is estimated that this submarine outfall will have a minimum length of 1.5 km for the marine distance (unloading at an approximated depth of 50 m) and 1.3 km for its coastal distance, all of which are buried (see the Figure 1 above).

**Sosua:** This subproject contemplates the extension of sewage system networks for the localities of Altos de Jalisco, Maranata and Bella Vista and interconnection with the treatment system and existing final disposition (submarine outfall). (See Figure 2 below)

**Montellano:** This subproject contemplates the extension of the sewage system and interconnection with the existing treatment and disposition system of Sosua. (See Figure 2)

Together, these two subprojects represent the installation of approximately 66.1 km of sewage system, 3 km of impulsion lines and five pumping stations, to give service to approximately 18,000 people. The entirety of these work will be located on public lands and throughout public roads in Montellano and Sosua.

**Playa Dorada:** This subproject contemplates the rehabilitation of the pumping stations of the Playa Dorada complex and the construction of impulsion lines, of approximately 2.9 km, for the
interconnection with the system of San Felipe de Puerto Plata. The entirety of this work will be located on public lands and throughout the public highway (see Figure 3).

**Figure 3.**

**Cabarete:** This subproject contemplates the study and analysis of the present integrated sanitation system of Cabarete, the feasibility study of possible alternatives for final disposal of the treated effluents from the treatment plant of Cabarete by means of submarine outfalls and, based on the results of these studies, the possible construction of a submarine outfall.

This subproject will be fully defined once the studies to evaluate the necessity to construct the submarine outfall are carried out. These studies will guarantee the suitable dilution and distance of the disposal and that the terrestrial or marine ecosystems of special interest in its surroundings are not affected, particularly the coral reefs and lagoons of Cabarete.

### 2.3. SOCIAL, ENVIRONMENTAL AND VULNERABILITY CHARACTERIZATION

#### 2.3.1. Social Aspects

The Puerto Plata Province is sixth in importance for the country with 312,706 habitants, corresponding to 168.40 hab/km² distributed over 1,856.90 km². The Province has an annual growth population average of 2% (Census of Population and Housing, 2002) and the population is mainly rural (51%), for each 100 urban habitants there are 104 rural habitants.
The municipalities that compose the province are San Felipe de Puerto Plata, Sosúa, Altamira, Imbert, Villa Isabel, Luperón, Los Hidalgos, Guananico and Montellano. The municipality of San Felipe de Puerto Plata has the greatest population density, followed by the tourist municipality of Sosúa which has the second greatest.

As a part of the PASCT preparation, a socioeconomic analysis of the project area was made. This analysis confirmed that the proposed projects will benefit significantly and directly the low-income population in the province.

2.3.2 Environmental Aspects

Vegetation

It is important to emphasize that all the works, with the possible exception of those which are under the subproject of Cabarete, are located on public lands, with pre-existing routes or streets.

Hydrologic Resources

The existing hydrologic resources in Puerto Plata allow the provision of the necessary water for the development of the different activities. The proposed works do not affect the hydrologic resources of the province but instead help to conserve and protect it by eliminating the uncontrolled and untreated residual waters that currently exist.

Coastal Zone

The province includes 44.2 km of coastline and 26.0 km of beaches with natural resources such as coral reefs. The main coastal and marine environments from Playa Caño Grande and Playa Dorada to Sosúa, Province Puerto Plata, are composed of Playas Arenosas, Costa Rocosa and other marine ecosystems close to the coast with high environmental value. The most valuable of those are described below.

Playa Dorada to Punta Bergantín: a coastal zone that has suffered from previous interventions and impacts by human activities. The marine grass prairies (Thalassia testudinum and Syringodium filiformis) have been destroyed since the inception of the hotel complex construction by manual extraction, which causes persistent erosion.

East Arroyo Cangrejo: From this site to Punta Sosúa, where the reef cliffs of the Union begin, a strip of reef exists in the nearby regions, which is a low density reef and suffers from erosion. It is located between 5 and 25 meters from the coast, and has a depth between 2 and 6 meters. This area is colonized by skeletons of reefs from the Acropora palmata and Porites species, with brown seaweed and zoantharies.
Sosúa: is a sand strip, characterized with hard bottoms (beach rock) which sometimes project towards the water surface, and where the reefs are established and grow in good conditions, without great interference. Nevertheless, due to the great amount of tourists visiting the area and to poor environmental management, a gradual but evident degradation is occurring.

Reef of Sosúa: is composed of a reef located in a small opened bay with a Northeastern direction. It grows on a solidified base of sand (beach rock, which is still evidenced on the coast, as if it were a dock. Existing in calm waters, the reef of Sosúa grows on a hard bottom that occupies 30% of the area of the cove with a gentle slope that opens to the sea; in the shallow parts, it is occupied by a prairie of Thalassia in conditions of low density and with very little associated fauna present. After reaching 4 meters of depth, it is surrounded by a promontory (La Piedra de Sosúa), in a rocky hard bottom which grows great prairies of Octocorales (soft reefs). In the Piedra de Sosúa, at 2 meters of depth, Acropora palmata, Millepora alcicornis, Diploria clivosa, Dendrogyra cylindrus can be found.

Cultural and Physical Heritage

The Province of Puerto Plata has important patrimonial resources, of the colonial type, like the San Felipe Fort, and others of architectural value from the Victorian period, located in the old quarters of the city of Puerto Plata. In addition, the zone has two important landmarks, the Museo de Sitio del Parque Nacional La Isabela and el Monumento Natural Loma Isabel de Torres.

None of these are located in the areas of the proposed works, and for this reason will not be affected. Neither are there expected to be any accidental findings. Nevertheless, the project includes procedures that will be applied in such cases so that proper and necessary measures are taken.

2.3.4 Vulnerability and risks under potential natural disasters.

The main natural threats that can affect the region of Puerto Plata are related to seismic activity, storms and hurricanes. The registered seismic activities in the zone are due to the presence of the Camu and Septentrional faults.

The project incorporates, in all contracts to finance, special measures of control and plans of emergencies for the possible occurrence of natural disasters, accidents or emergencies.

2.4. ENVIRONMENTAL AND SOCIAL ANALYSIS

The works that potentially can cause negative environmental and social impacts during the implementation of the PASCT are related to the construction, extension and rehabilitation of the existing sewage
systems, as well as to the rehabilitation of the San Felipe de Puerto Plata Residual Water Treatment and the construction of submarine outfalls. The construction of submarine outfalls is proposed only once the necessary environmental and feasibility studies have been made and an additional social evaluation study has been made in order to assure the fulfillment of the national environmental legislation as well as the Bank Safeguards Policies.

At this moment, the defined subprojects that the Bank will finance are only those for the rehabilitation and expansion of the sewage systems in the localities of Sosua and Montellano.

At the beginning of the project the feasibility studies and environmental evaluation in San Felipe de Puerto Plata of the Integrated Sanitation System will be undertaken, as well as the design of the interconnection of Playa Dorada, and based on those results, the designs and the contracting for the works will begin. Also, in the case of Cabarete the existing sanitation system will be evaluated and based on the results of this analysis, a feasibility study will be made for the options available.

Eventually, it will be proposed to finance under the project the construction of a submarine outfall for the treated water being disposed from the Cabarete water treatment plant.

2.4.1 Evaluation of Environmental-Social Impacts

As a part of the General Environmental Analysis of the Project, the following is an evaluation of the potential environmental-social impacts that may occur in each subproject and the general actions or measures that will be taken by the Environmental Management Plan to ensure acceptable measures are taken during the execution and operation of works.

Sub-projects extension, rehabilitation and improvement of existing sewage system.

By means of the subprojects of extension, rehabilitation and improvement of existing systems of sanitary sewage system it is foreseen to supply service to communities through the execution of domiciliary sewage system networks that in special cases can include the construction of pumping stations.

In all the foreseen cases, these works will be exclusively located in public zones and roads, serving already inhabited and consolidated zones. For this reason, in no case will these works affect the fauna or flora, nor is it expected that it will cause resettlements or changes in land use.

In addition, the pumping stations will be designed with devices to avoid the spillage of residual waters into the public thoroughfare in cases of power shutdowns or breakdowns.
Sub-projects Served water plants treatment rehabilitation and new submarine outfalls construction.

In this type of subproject, works of water treatment and final disposal are expected to be developed. Although the lack of control and handling of a water treatment system can cause indirect impacts to surrounding bodies of water, the rehabilitation of the treatment plant and the construction of the submarine outfall will have clear positive impacts on the present situation, in which residual waters, only partially treated, are poured into the coastal line affecting this water and the important ecosystems that they support. In order to guarantee the efficiency of the infrastructure to be constructed and its correct operation, the project proposes concentration level controls of the residual waters that are disposed of.

2.4.2 Actions and measures for handling of potential negative environmental impacts

The project, as part of the plan of environmental management, proposes actions and general measures that will apply to the works' execution, and that will be taken into account to develop the respective Plans of Environmental Management, to ensure proper environmental and social management during the execution and operation of works and limiting the potential environmental impacts mentioned above. This plan details the main indicators of environmental and social monitoring to be measured, the responsibilities for them and the mechanisms and procedures for the use of this information in order to take the corrective measures that prove to be necessary.

The project also includes an Attention of Accidents, Emergencies and Disasters Manual. This manual details the procedures to use for these cases, as well as the distribution of responsibilities, the necessities of personal training for its application and the measures of coordination with the local authorities.

The main elements of the Plan of Environmental Management are as follows:

a. Construction Phase

- In order to avoid the increase of turbidity in the zone of construction of trenches for the positioning of the submarine outfall, excavation procedures that will limit the solids suspension will be established (for example, using suction dredged).

- The alignment of the submarine outfall and the positioning of the protection and anchoring devices will be made with geopositioning for precision and after the inspection in situ of the work zone in order to prevent the ecosystems of special ecological value from being affected.

b. Operation Phase
- In order to guarantee the suitable operation of the submarine outfall, the constructor will have to elaborate a maintenance plan of the diffusers and procedures for the periodic cleaning of the pipes. Also, this plan should propose situations of emergency for the possible breakage of the pipe by accident or natural causes.

- In order to avoid accidental residual water from pouring out in the case of failure of the pumping stations or electrical shutdown, they will be designed with sufficient duplicity of electromechanical means and equipped with floodgates and power generators.

2.4.3 Environmental Analysis

As part of the process of environmental and social evaluation of the Project, the following is the revision of a sample of works that are expected to be executed during the execution of the PASCT.

In order to develop this analysis the Environmental and social Management Framework (ESMF) was applied to the Project, fulfilling the Bank Safeguard of Environmental Evaluation Policy, based on the existing information at the moment of the analysis.

The Bank-financed subprojects fully designed at the present time are only works for the expansion of sewage systems of Sosua and Montellano. The remaining three subprojects are pending dependant on their design and feasibility studies.

Environmental Analysis Results: ESMF Application.

As part of the preparation and evaluation process of the PASCT, a field visit was executed in the month of April of 2007, with the objective of making a preliminary environmental evaluation of a sample of subprojects, according to the directives established within the framework of Environmental and Social Management of the Project.

It is important to indicate that for the social-environmental evaluation of the sample of subprojects the Environmental Card of Preliminary Evaluation (ECPE) was used, designed in the ESMF mentioned before; and the field visit was developed jointly with civil employees of the Secretaria de Estado de Medio Ambiente y Recursos Naturales (SEMARENA). The following shows the result of this analysis.
Projects to finance under the PASCT

<table>
<thead>
<tr>
<th>Project</th>
<th>Location</th>
<th>Social-Environmental Risk Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Submarine Outfall</td>
<td>Cabarete and San Felipe de Puerto Plata (1)</td>
<td>High</td>
</tr>
<tr>
<td>2. Sanitary Sewage system Extension</td>
<td>Sosua (2)</td>
<td>Moderate</td>
</tr>
<tr>
<td></td>
<td>(Altos de Jalisco, Maranata and Bella Vista)</td>
<td></td>
</tr>
<tr>
<td>3. Pumping Stations Rehabilitation and interconnection.</td>
<td>Montellano(2)</td>
<td>Moderate</td>
</tr>
<tr>
<td></td>
<td>Playa Dorada(3)</td>
<td>Low</td>
</tr>
<tr>
<td>4. Water Treatment Plant Rehabilitation</td>
<td>San Felipe de Puerto Plata (2)</td>
<td>Moderate</td>
</tr>
</tbody>
</table>

Note: According to the classification designed in the ESMF, Level 1 means a subproject with HIGH social-environmental risk; Level 2 a subproject of MODERATE level of social-environmental risk; and 3 Level a subproject of LOW social-environmental risk.

Executed Studies

As part of the environmental and social evaluation process of the Project, the following has been included in the revision of a sample of subprojects, corresponding to the ones to be executed: (i) the extension of the Sanitary Sewage system of Sosua; and (ii) the extension of the sanitation sewage system of Montellano.

It is important to highlight the use of the following for the social-environmental evaluation of the sample subprojects: (i) the Environmental Card of Preliminary Evaluation (ECPE), designed in the ESMF; (ii) the field visits that were jointly developed with civil employees of the Secrtaria de Estado de Medio Ambiente y Recursos Naturales (SEMARENA) and representatives of the UE-PASCT; and (iii) the socioeconomic analysis of the zones of execution for these subprojects. The results of these analyses were submitted to public consultation between focus groups, main social agents and the general public. This public consultation confirmed the interest and social support for these subprojects and useful recommendations for their execution were.

In fulfillment of the national environmental legislation, during the preparation of the Project the respective
technical file appeared (March 19 2007) stops to the Direction of Environmental Evaluations of the SEMARENA to ask for its uprising and to confirm the requirements in terms of studies for the subprojects of the sample.

In this sense, a technical visit was made on the part of the civil employees of the SEMARENA and the UB-PASCT (March 21 2007), one ratified the requirements in terms of required studies that were established in the PEEC developed for each one of the subprojects of the sample.

SEMARENA emitted the Terms of Reference (25 of April 2007), to develop the environmental studies corresponding to these Sub-projects of the sanitation sewage system. Based on these terms of reference, the works of environmental evaluation were developed and the corresponding Environmental Documents were elaborated. As a result, the two subprojects were verified to have the conditions that strongly indicate that the potential environmental impact will be moderate and can be controlled by the following identified measures of mitigation:

- All the works will be executed in public routes, in their majority without asphalting, where fauna and flora of ecological interest does not exist (for information, exclusively, an inventory of the existing species in the region is included)
- The works will give service to consolidated centers
- The pumping stations include devices to avoid the spill of residual water in case of failures or failure of the electrical supply
- There is sufficient capacity in the current treatment and disposal system of Sosua to absorb the residual waters that the proposed extension will contribute (total horizon was designed for the population)
- The excavation materials will be used in the work for rehabilitation of the routes to their original state
- The works will count on systems and procedures that prevent the spillage of fuels or materials, in addition to uncontrolled access.
- The increase of traffic, noise and emissions of the machinery during the work is insignificant.
- The execution of an educational campaign and consultation to inform the public of the works, for whom they are meant to benefit

Both subprojects include the necessary preventive measures for construction and operation, as well as a program of environmental management, that guarantee that the potential negative impacts will be properly mitigated and controlled. It is important to note that the Program of Environmental Management, that includes procedures for contingency situations or emergency (for example for natural cases of accident or disasters), as well as demands in the matter of security and hygiene in the work, will be made essential for
the contractors to follow as an integral part of their work contract.

2.4.4. General Procedures for Environmental and Social Management.

The Environmental and Social Management Framework and the Operation Manual include the general procedures for the evaluation and environmental handling of works to be financed under the PASCT. Also included in these documents are the Resettlement Framework and the procedures for the social communication.

The general procedures also require that every investment includes an Environmental Management Plan, to be applied to all works financed under the PASCT. This Environmental Management Plan should establish the standards for the performance and monitoring of works, the indicators of the environmental and social monitoring, the distribution of responsibilities, and the procedures to be used in the case of accidents and/or emergencies. The Environmental Management Plan should also include procedures to be followed if accidental findings of cultural or archaeological goods occur (see table 1 below).

Table No. 1
Environmental and social monitoring indicators

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Regularity</th>
<th>Responsible Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>a. Environmental indicators</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a.1. During the construction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Noise Level</td>
<td>Daily</td>
<td>Contratista / UA-PASCT</td>
</tr>
<tr>
<td>Phreatic Level</td>
<td>Weekly</td>
<td>Contratista / UA-PASCT / CORAAPPLATA</td>
</tr>
<tr>
<td>Used oil destiny</td>
<td>Monthly</td>
<td>Contratista / UA-PASCT</td>
</tr>
<tr>
<td>Excavated Quality *</td>
<td>Weekly</td>
<td>Contratista / UA-PASCT</td>
</tr>
<tr>
<td>Excavated Destiny</td>
<td>Daily</td>
<td>Contratista / UA-PASCT</td>
</tr>
<tr>
<td>Work traffic</td>
<td>Weekly</td>
<td>Contratista / UA-PASCT</td>
</tr>
<tr>
<td>Turbiedad aguas</td>
<td>Daily</td>
<td>Contratista / UA-PASCT</td>
</tr>
<tr>
<td>a.2. During the operation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Noise Level</td>
<td>Monthly</td>
<td>CORAAPPLATA</td>
</tr>
<tr>
<td>Gas and particulate emission</td>
<td>Monthly</td>
<td>CORAAPPLATA</td>
</tr>
<tr>
<td>Residual waters quality *</td>
<td>Daily</td>
<td>CORAAPPLATA</td>
</tr>
<tr>
<td>Calidad efluentes*</td>
<td>Daily</td>
<td>CORAAPPLATA</td>
</tr>
<tr>
<td>Tóxicos en efluentes*</td>
<td>Monthly</td>
<td>CORAAPPLATA</td>
</tr>
<tr>
<td>Electrical consumption</td>
<td>Daily</td>
<td>CORAAPPLATA</td>
</tr>
<tr>
<td>Sedimentos en difusor*</td>
<td>Annual</td>
<td>CORAAPPLATA</td>
</tr>
<tr>
<td>Bentos en difusor*</td>
<td>Annual</td>
<td>CORAAPPLATA</td>
</tr>
<tr>
<td>Bentos en costa*</td>
<td>Semestral</td>
<td>CORAAPPLATA</td>
</tr>
<tr>
<td><strong>b. Social Indicators</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acceptance degree</td>
<td></td>
<td></td>
</tr>
<tr>
<td>During the construction</td>
<td>Quarterly</td>
<td>UA-PASCT/CORAAPPLATA/ Contratista</td>
</tr>
<tr>
<td>During the operation</td>
<td>Annual</td>
<td>CORAAPPLATA</td>
</tr>
<tr>
<td>Network connections</td>
<td>Annual</td>
<td>CORAAPPLATA</td>
</tr>
<tr>
<td>Payment level</td>
<td>Monthly</td>
<td>CORAAPPLATA</td>
</tr>
<tr>
<td>Complaints level</td>
<td>Monthly</td>
<td>UA-PASCT / CORAAPPLATA</td>
</tr>
</tbody>
</table>
Though the case of resettlement is unlikely and every effort will be
done to avoid it, inclusive through changes in the designs, an
Involuntary Resettlement Framework has been developed to be applied in
those cases that involuntary resettlement is unavoidable. The
framework defines the procedures to be applied to guarantee that the
rights of those affected are preserved and the laws and national
standards are met during and after the construction phase.

Whenever an investment is found to result in involuntary resettlement
or land purchases, the Framework describes the procedures to be
followed in the preparation of the land-acquisition and/or resettlement
plans so that the affected families and businesses will be provided
with adequate compensation for their losses, including potential
alternative housing. These resettlement plans will be carried out by a
working group, comprising personnel from CORAAPLATA and social
representatives, in a consultative manner and with a communication
plan. The framework also describes the instruments that will be used to
determine the type and amount of compensation, the eligibility
criteria, the options for resettlement, the roles and responsibilities
of those involved in the process, the procedures for monitoring and
evaluation and the content of the corresponding financial plan.

Overall, the framework is composed of the following main features: i)
the principles and objectives of the resettlement framework; ii)
guidelines for the preparation of the resettlement plans; and iii) the
procedures for the planning and execution of resettlement. The
Framework also includes the terms of reference for the social
evaluation studies and for the social communication campaigns that will
be carried out during project execution.

The framework is consistent with the recommendations and requirements
established by the World Bank Operational Policy on this matter. It is
also consistent with the Dominican Republic Constitution and Law 344 of
July 31 1943.

3. EL PROYECTO

En el presente capítulo se presenta el objetivo del Proyecto, los
componentes identificados para ser ejecutados con recursos del préstamo
y el Plan de Inversiones.

3.1 Objetivo

El objetivo del Proyecto es asistir a la República Dominicana en el
mejoramiento de los servicios de agua y alcantarillado, particularmente en los centros turísticos, reduciendo la
degradación de las costas y al mismo tiempo promoviendo el
desarrollo turístico de una manera ambientalmente sólida, mediante:
(i) el fortalecimiento del desarrollo espacial, el uso de los
recursos naturales, la política regulatoria, la capacidad
institucional y la gobernabilidad de la zona costera, y (ii) la
iniciación de inversiones prioritarias para mejorar las condiciones ambientales y promover el desarrollo de un turismo de alta calidad.

El Préstamo con Programa Adaptable (APL) propuesto apoya el programa integral del Gobierno para mejorar la provisión de servicios de agua y alcantarillado sustentables y eficientes en las áreas turísticas de la República Dominicana, de forma que mejoren la calidad de las aguas costeras. Los elementos claves de la primera fase del Programa (el Proyecto propuesto) son: (i) la expansión de las redes cloacales, el adecuado tratamiento y la apropiada disposición de las aguas residuales municipales; (ii) el mejoramiento de la operación y la gestión de las compañías regionales de agua y alcantarillado; (iii) el desarrollo de una estrategia nacional para el sector; (iv) el desarrollo de criterios para la gestión y el planeamiento de las cuencas hídricas, vinculado con una evaluación ambiental estratégica integrada; y (v) mejoramiento de la comunicación y participación públicas. En las fases subsiguientes, el Programa del APL propuesto apunta a expandir y consolidar los resultados de la primera fase mediante: (vi) el mejoramiento de la gestión sectorial y la viabilidad financiera de las compañías regionales de agua y alcantarillado, incluida la posible participación del sector privado; (vii) el ulterior desarrollo de la cobertura del alcantarillado y los niveles de tratamiento; y (viii) el desarrollo de planes de manejo de las cuencas hídricas.

Figura No. 1
Mapa Político de la Provincia de Puerto Plata

3.2 Alcance

Los componentes del proyecto propuesto son:
Componente 1: Asistencia Técnica para el Desarrollo Sector Agua y Saneamiento (monto estimado US$ 3,3m)

A fin de apoyar los esfuerzos del Gobierno tendientes al desarrollo de una estrategia nacional para el sector del agua y el alcantarillado, el proyecto financiará:

a. Diseño del Marco Estratégico y Plan de Acción Sectorial: El proyecto financiará servicios de consultoría y capacitación para diseñar el marco estratégico sectorial, así como para identificar las principales reformas requeridas y proponer un plan de acción para la implementación de dichas políticas. El marco estratégico definirá: (i) los mecanismos de financiamiento del sector; (ii) las metas de desempeño para las compañías descentralizadas, (iii) las políticas de tarifas y subsidios, y (iv) los mecanismos para la evaluación y el monitoreo del cumplimiento;

b. Modernización y Fortalecimiento Institucional: El proyecto financiará asimismo servicios de consultoría para el desarrollo de un programa de modernización y fortalecimiento a escala nacional para apoyar la mejora de la capacidad de gestión en otras empresas de servicios básicos en áreas turísticas y no turísticas y para preparar estudios de factibilidad y planes de inversión para estas otras CORAS a ser financiados en el marco del APL II;

c. Gestión Ambiental: En apoyo de la Estrategia Sectorial Nacional, el proyecto financiará servicios de consultoría para desarrollar: (i) criterios para el diseño de los Planes de Gestión de las Cuencas Hídricas necesarios para mejorar la capacidad de gestión ambiental regional y recuperar y proteger las cuencas hídricas costeras priorizadas (también denominado "Proyecto de Directrices"), y (ii) la preparación de una Evaluación Ambiental Estratégica de la costa norte. Dichos planes de gestión de cuencas hídricas constituirían una base integrada de planificación para la futura gestión de las cuencas hídricas costeras; y

d. Participación Pública: Dado que el proceso de desarrollo y adopción de una estrategia nacional para el sector debe ser altamente participativo, el proyecto financiará servicios de consultoría, capacitación y actividades para promover una mejor comprensión del proyecto por parte de los actores sociales clave, promover la participación de las organizaciones de la sociedad civil y facilitar un diálogo entre los actores sociales interesados.

Componente 2: Infraestructura de Alcantarillado y Tratamiento de Aguas Servidas (monto estimado US$ 26,8 millones).

Este componente financiará:

a. Inversiones para rehabilitar, ampliar y construir nuevas redes de alcantarillado, rehabilitación de planta de tratamiento y la
construcción de emisarios submarinos en la provincia de Puerto Plata; y

b. Asistencia Técnica para mejorar el desempeño y la eficiencia de los servicios suministrados por CORAAPPLATA y la preparación de los diseños detallados para este proyecto y para el APL II.

Componente 3: Gestión del Proyecto (monto estimado US$ 3,9 millones)