

Environmental and Social Data Sheet

Overview

Project Name:	WEST PANAMA CITY SANITATION PROGRAMME - BURUNGA
Project Number:	20150672
Country:	PANAMA
Project Description:	The project consists of a sanitation programme in the western part of Panama City, namely the Arraiján district.
EIA required:	yes
Project included in Carbon Footprint Exercise ¹ :	no

Environmental and Social Assessment

Environmental Assessment

The EIB proposed operation will support the first intervention of the Panama Oeste Wastewater Management Programme in the Panama Oeste province. The project consists of the construction of a wastewater treatment facility and the wastewater collection system for the northern part of the district of Arraiján, with Burunga being its most important subdivision.

Panama Oeste is mostly urban, with a high water supply coverage of about 80%. Nonetheless only 24% of the population is connected to independent sewerage systems and small treatment facilities, most of them are not working or in a poor state of maintenance. Untreated collected wastewater is thus discharged into rivers and the rest of the population utilizes septic tanks, pit latrines or simple open pits. This situation leads to a serious surface and groundwater pollution, thus resulting in health problems in an area where 25% of the population is under the age of 14.

The project area is located in a tropical forest area considered as a fragile ecosystem, particularly with regards to the location of the future wastewater treatment plant. Rivers show high levels of E. coli, a clear indicator of human pollution.

The Project initially covered the area of Burunga, and was defined as the first phase of the Panama Oeste Sanitation Master Plan. At a later stage, the Government of Panama approved the incorporation of the second phase of the Master Plan under the scope of this operation (*Arraiján Cabecera* and surrounding areas). Thus, the two different phases have been screened according to article 24.1 of the "Ley General del Medio Ambiente" – or General Environmental Law - No 41 of July 1998, defining the projects subject to an environmental impact assessment. According to articles 22, 23 and 24 of the Executive Decree No 123 of 2009, the projects in both cases were classified as *Categoría III*, thus requiring a full Environmental and social Impact Assessment (ESIA). According to the World Bank environmental standards, they have also been classified as Category B projects, likely to cause mostly local and non-irreversible negative environmental and associated social impacts and for which effective mitigation measures are readily available. The EIB financed

¹ Only projects that meet the scope of the Pilot Exercise, as defined in the EIB draft Carbon Footprint Methodologies, are included, provided estimated emissions exceed the methodology thresholds: above 100,000 tons CO₂e/year absolute (gross) or 20,000 tons CO₂e/year relative (net) – both increases and savings.

Luxembourg, 15th October 2015

components will focus on the networks in the area of Burunga whereas the co-financiers will focus on both Burunga and Arraiján Cabecera including the wastewater treatment plant

The Government of Panama enacted Law 25 in March 2015, by which the Ministry of Environment (*Ministerio de Ambiente*) assumed all the functions of the former National Environmental Authority (ANAM). The Executive Decree of 2009 regulates the Environmental Impact assessment (EIA) approval process. The Project's Coordination Unit - *Unidad Coordinadora de Proyecto* (UCP) will be responsible for the Environmental and Social Management Plan (ESMP) compliance of the construction activities, supported by international consultants. The UCP has shown to apply good environmental and social practices. The scheme which includes the wastewater treatment plant was approved by the Ministerio de Ambiente (Resolución No IA-122-2016 of 15 July 2016). The EIA has already been published on the Bank's website. The EIA for Arraiján Cabecera and surrounding areas is being finalized for its submission to the competent authority.

The first scheme would require within the European context a full EIA according to the EIA Directive 2014/52/EU (Annex I) and the second scheme would fall under Annex II. A strategic environmental assessment (SEA) as defined in the SEA Directive 2001/42/EC is not required by local legislation. The project promoter, the Ministry of Health (MINSa) is committed to respect the WWTP discharge in full compliance with Panama Regulations, mostly in line with EU requirements (see table below).

Thresholds (mg/l)	EU Directive	Panama legal requirement
BOD ₅	25	35
COD	125	100
Total SS	35	35
P*	1	5
N*	10	10

*Only required for EU declared sensitive areas

The wastewater treatment plant will incorporate a standard biological treatment process with sludge anaerobic digestion to recover methane and cogenerate energy. It is expected to produce about 235 tonnes of sludge per month, to be disposed in a municipal landfill. Though the capacity of the landfill would be initially sufficient, the sludge produced by the 3 future wastewater treatment plants will significantly reduce its capacity. A new landfill is under construction. Nonetheless the promoter is exploring other alternatives for the sewage sludge: it must comply with Class I of the national standard DGNTI-COPANIT 47-2000, so that it can be further used as a fertilizer.

The operation also comprises a sustainable wastewater management component to address water pollution control and wastewater facilities operation in the Panama Oeste Province. It includes the development of an integrated water pollution management plan and capacity building activities.

The elevation of the infrastructure has been designed for a flood return period of 100 years plus one additional metre. It is acceptable taking into account that the climate change impact is expected to be moderate in the region. The project's contribution to climate action - mitigation is estimated at about 35% of the loan. It is based on the reduction of methane emissions currently being produced by anaerobic conditions in septic tanks and poorly operated sewerage infrastructure. It equals 353 250 t CO_{2e} for the expected lifetime period of 25 years of the infrastructure.

Social Assessment, where applicable

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Social impacts of the project include the disruption to services, noise, temporary occupation of public or private space, traffic disruptions and safety hazards. The project doesn't affect any protected area, species or indigenous groups. No involuntary resettlement is foreseen, the land where the wastewater treatment plant will be built is owned by the national public *Banco Hipotecario Nacional*, which will transfer the property to the Ministry of Health. The process is on-going.

The Government of Panama has ratified all 8 ILO fundamental conventions and the Promoter shows awareness and compliance with health and safety regulations.

Public Consultation and Stakeholder Engagement

Public consultation for the environmental impact assessment of projects follows national regulations, as described in Executive Decree No. 123 of 14 August 2009. The *Plan de Participación Ciudadana* consisted of interviews with key stakeholders, surveys, meetings with communities and specific groups and workshops from June to September 2015 for Burunga and from March to August 2016 for Arraiján Cabecera. The population showed their concern for the lack of a public sewerage system thus their interest and positive expectations with regards to this project.

Conclusions and Recommendations

The project supports the Government of Panama's effort in addressing environmental problems in the country. The project beneficiary area is subject to rapid population growth due to the expansion of the Metropolitan Area on the other side of the Canal of Panama, with an estimated beneficiary population of over 100 000 at project completion. The new sewerage system and the capacity to treat wastewater effluents to acceptable standards through the project will foster the protection of the urban rivers and the Panama Bay; it will also reduce the pollution of underground waters, thus benefitting public health. Overall the project will have a positive impact on the population due to the employment created and underpinning the foundations for the economy in an area whose growth has until now taken place in a context of high urban poverty.

The Promoter will be required i) to implement and follow the recommendations of the Environmental and Social Impact Assessments and the Environmental and Social Management Plans, and ii) not to start the works related to the non-EIB financed components until the necessary assessment has been finalized and approved by the competent authority. Once the EIA is available, the Promoter will provide the Bank with an electronic copy for publication on the EIB website.

Taking into consideration the above undertakings, the project is considered to be acceptable for Bank financing from an environmental and social perspective.

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