



Combined Project Information Documents / Integrated Safeguards Datasheet (PID/ISDS)

Appraisal Stage | Date Prepared/Updated: 27-Feb-2018 | Report No: PIDISDSA23278



BASIC INFORMATION

A. Basic Project Data

Country Dominican Republic	Project ID P163260	Project Name DR Resilient Agriculture and Integrated Water Resources Management	Parent Project ID (if any)
Region LATIN AMERICA AND CARIBBEAN	Estimated Appraisal Date 26-Feb-2018	Estimated Board Date 25-Apr-2018	Practice Area (Lead) Agriculture
Financing Instrument Investment Project Financing	Borrower(s) Dominican Republic	Implementing Agency Ministerio de Economía, Planificación y Desarrollo, Instituto Nacional de Recursos Hidráulicos, Ministerio de Agricultura, Instituto Nacional de Aguas Potables y Alcantarillado (INAPA), Ministerio de Medio Ambiente y Recursos Naturales	

Proposed Development Objective(s)

The Project Development Objective is to contribute to improved sustainable landscape management and access to water supply and sanitation services in targeted river basins.

Components

- Component 1: Sustainable Productive Management of Agroecosystems
- Component 2: Enhancement of Resilience and Management of Hydraulic Infrastructures
- Component 3: Reducing contamination through Improvement of Water Supply and Sanitation Services in Prioritized Areas
- Component 4: Capacity Building for Natural Resources Management and Governance, and Project Management

Financing (in USD Million)

Financing Source	Amount
FRANCE: French Agency for Development	23.00
International Bank for Reconstruction and Development	80.00



Total Project Cost

103.00

Environmental Assessment Category

B - Partial Assessment

Decision

The review did authorize the preparation to continue

Other Decision (as needed)

B. Introduction and Context

Country Context

The Dominican Republic has enjoyed one of the strongest growth rates in Latin America and the Caribbean over the past 25 years. In the period 2001-2013, the Dominican Republic economy grew at an average rate of 5.1 percent, placing the Dominican economy in 4th place in the group of top growth performers (after Panama, Argentina and Peru). This good performance got even better more recently when economic growth rates averaged 7.1 percent in 2014-2016, fueled by strong domestic demand. This overall dynamic growth has enabled a convergence of the DR's GNI per capita (US\$6,259 in 2015 and US\$6,574 in 2016) with that of the region ¹ from 57 percent in 1992 to 90 percent of the regional average in 2015. Estimates show that if the pace of growth observed during the past five years continues, the gap would disappear by 2020.

Despite this remarkable economic performance, growth has not been inclusive during the period 2000-2013. In 2000, the poverty incidence in the DR was 32 percent. In the wake of the banking crisis of 2003-04, the country's GDP that had grown by 6 percent in 2002 contracted by 0.3 percent in 2003. Thus, an estimated 1.7 million people moved into poverty and the poverty rate reached 50 percent of the population in 2004. When the economy recovered after the crisis, poverty rates began to fall slowly and have only returned to the pre-crisis level in 2015 ² but above the average for LAC. ³ At the same time, it is worth noticing that inequality improved between 2000 and 2015 (with the Gini index falling from 0.520 to 0.449).

Although over the last few years, poverty has declined substantially, more effort is needed to sustain these gains and to address the remaining poverty and equity challenges. After remaining above 40 percent since the crisis observed in 2003 in the DR, poverty calculations for 2014 point to a sizeable one-year reduction and data for 2015 suggest a continued reduction in poverty. Per the latest official data available, monetary poverty declined to 36.4 percent in 2014, dropping further to 32.3 percent in 2015. Extreme poverty declined less, moving from 8.4 percent in 2014 to 7 percent in 2015.

¹ GNI per capita, Atlas Method. World Development Indicators.

² World Bank, 2014a. "When Prosperity is not Shared: the Puzzle of the Weak Links between Growth and Equity in the Dominican Republic". Equity Assessment, The World Bank, Washington, DC.

³ See SEDLAC. <http://sedlac.econo.unlp.edu.ar/eng/statistics-detalle.php?idE=34>



The main challenges on poverty are the significant disparities in poverty levels across regions and between rural and urban areas. Poverty rates in the southern and western regions along the Haitian border are the highest in the country at about 50 percent. Levels of extreme poverty are several times higher than the national rate. Despite the trend of general reduction since 2004, moderate poverty is still proportionally more predominant in rural areas than urban (38 percent against 27 percent in 2016). Agricultural productivity is low and natural disasters such as hurricanes and tropical storms are a recurring threat to rural areas and to the living conditions and incomes of the rural population.

Despite progress in some areas, Dominican women face additional barriers to their development and full inclusion in society. With respect to economic opportunities, participation in the labor force among women ages 29-54 increased from 59.5 percent in 2001 to 71.8 percent in 2016, accompanied by increases in the occupation rate from 47.2 to 60.5 percent in the same period. However, more than a fourth of all women are unemployed (26 percent), with young women experiencing even higher rates of unemployment at 53 percent in 2016.

To sustain high economic growth rates and address remaining poverty and equity challenges, the DR needs a concerted reform effort. The Policy Notes, published in October 2016, stressed four inter-related areas that could self-reinforce effects on long-term growth: (a) macro and fiscal management; (b) competitiveness of the economy for inclusive growth (including several factors, such as, for example the quality of infrastructure, the business environment, the soundness of the financial sector, among others); (c) factors that affect social sustainability (including the quality of public service delivery in core sectors such as education, health, water and sanitation, and electricity); and (d) *environmental sustainability and resilience to climate change*.

Sectoral and Institutional Context

This section encompasses the main topics covered by the project: agriculture, disaster risk management, water security (including Water Supply and Sanitation and Integrated Water Resources Management), environmental sustainability, and resilience to climate changes.

The development of the agri-food sector, one of the engines of growth in the DR, creates important pressure on natural resources. The sector (agriculture, livestock, forestry, fisheries and agroindustry) contributes 16% to the national GDP⁴. Primary agricultural production has been contributing a relatively constant 6 to 7% to the national GDP over the past 10 years. Agri-food exports (animal, vegetable and foodstuff) accounted for 20% of total value of official exports in 2012. Three quarters of the agricultural production is transformed downstream the value chain by the agroindustry sector⁵, adding value and creating jobs in the country. Despite encouraging progress in reversing deforestation trends and increases of the forest cover, additional efforts are needed to reduce ecosystem degradation in specific regions of the country as a result of intense agricultural activity. This sector is contributing to deforestation in upper watersheds, soil erosion, and pollution of water sources that are threatening the landscapes, the country's economic development and the health of its population. The majority of deforestation (60%) continues to be caused by the expansion of slash

⁴ Junta Agroempresarial Dominicana, 2009: *Estrategia para el Desarrollo Agropecuario y Agroindustrial Sostenible para la RD*.

⁵ Ministerio de Agricultura, 2011: *Plan Estratégico Sectorial de Desarrollo Agropecuario 2010-2012*.



and burn agriculture and poor extensive livestock production practices in protected areas on the borders with Haiti. Other direct causes of deforestation and forest degradation include illegal logging, unsustainable cattle grazing, natural disasters, forest fires, and infrastructure projects for mining, energy and tourism.

Like many other countries in the Caribbean, the DR is also extremely vulnerable to natural disasters. The DR is highly exposed to rapid weather related disasters (tropical storms, hurricanes, cyclones, floods and landslides), slow climate change processes (sea-level rise and desertification) and seismic events such as earthquakes and landslides. The country ranks as the 8th most vulnerable country to climate change⁶. Roughly 92 percent of its economic production and 97 percent of its population are located in areas vulnerable to two or more types of natural disaster.⁷ Geographic location plays a large role in explaining this high degree of exposure to weather events, but so do structural weaknesses such as inadequate management of large water storage infrastructures, unplanned urban growth, land degradation, and weak enforcement of building codes and zoning regulations.

The agri-food sector in particular faces important challenges of resilience to climatic vulnerabilities (floods and droughts). This adversity is likely to worsen in the near future. According the National Strategy for Adaptation to Climate Change in Agriculture 2014-2020⁸, total annual rainfall may decrease to 1,137 mm in 2030 (11% decrease from 2010). Climate scenarios project an increase of temperature of 0.5 to 1°C by 2030 and by 1 to 2.5°C by 2050. Areas currently subject to drought could become permanently arid with climate change.

Sustainable forest management and conservation may provide additional resilience to climate variability. Forest cover in agriculture landscapes supports the maintenance of ecosystems services such as biodiversity, water provision, and timber and non-timber forest products. Diversity of sources of income from forest sustainable use provides diversified sources of income, thus enhancing resiliency. DR has been increasing its net forest cover over the last decades. FAO estimated in 1973 the forest cover at 22% coming up to 38% by 2011⁹ consisting mainly of consisting of broadleaf, coniferous, and dry forests. Partially this is due to the reduction of the agricultural areas that, in 1996, covered 48% of the territory while in 2003 were estimated to cover 38%.

The largest user of water in the country is the agricultural sector, consuming 83% of the available volume¹⁰, an amount considered sufficient for the country to enhance its food sovereignty; although, the low efficiency in the management of the irrigation systems (25%), questions this possibility. The water supply sector does not have a large demand on the resource, as it consumes only 7% of the

⁶ Global Climate Risk Index 2015 <https://germanwatch.org/en/cri>

⁷ World Bank, 2005, Natural disaster hotspots: A global risk analysis. Washington, DC: World Bank: <http://documents.worldbank.org/curated/en/2005/04/6433734/natural-disaster-hotspots-global-risk-analysis>

⁸ *Estrategia Nacional de Adaptación al Cambio Climático en el sector Agropecuario de la RD 2014-2020*, prepared by the National Council for CC and Clean Development Mechanism (*Consejo Nacional para el CC y el Mecanismo de Desarrollo Limpio*).

⁹ Mapa de uso y cobertura del Ministerio de Medio Ambiente y Recursos Naturales (2011) <http://www.ambiente.gob.do/Noticias/Documents/Informe%20USO%20Y%20COBERTURA-%20web.pdf>; y FRA FAO (2010) "Evaluación de los Recursos Forestales"

¹⁰ FAO, 2016. AQUASTAT website. Food and Agriculture Organization of the United Nations (FAO). Website accessed on [2017/04/14].



available volume, but represents the second largest polluter of water resources, behind the agricultural sector¹¹.

The Water and Agriculture Sectors have been identified as key areas in the Intended Nationally Determined Contribution (INDC), prepared in August 2015. The sectors identified as most vulnerable on the Adaptation agenda are: Water Supply, Energy (power generation component), National System of Protected Areas, Human Settlements and Tourism. On the Mitigation agenda, agriculture, land use changes and forest management are key sectors. The Government has committed to reduce by 2030, the tCO₂e *per capita* emission by 25%¹².

Even though the DR has expanded access to WSS services, service still remains unequal. As of 2015, 85 percent of Dominicans had access to an improved source of water (85 percent in urban and 82 percent in rural areas), and 84 percent to improved sanitation facilities (86 percent in urban and 76 percent in rural areas). Despite increasing (albeit unequal) coverage levels the quality of service delivery has been deteriorating. The aforementioned figures of access to WSS services hide the fact that public networks are failing to provide quality services and customers need to turn to often costlier alternatives. For example, 78 percent of households consume processed water (*botellones*), while only 11 percent of households drink the water from the public network. This latter figure increases to 21 percent in rural areas.¹³

While access rates to WSS in the DR remain relatively high, the condition of the infrastructure is threatened by the lack of a maintenance, and wastewater collection and treatment continue to lag behind water supply. Although water supply and sanitation providers report having an installed capacity for drinking water of 62m³/s, enough to satisfy 2.33 times the current demand of 26 m³/s, the service infrastructure is insufficient, many networks present the need for rehabilitation, including wastewater collection and treatment plants. Only 53 percent of the DR's water treatment plants and 26 percent of the fully-functioning wastewater treatment plants were estimated to be at an adequate operating level.

Overall there is an indicative of poor management of WSS systems in the rural sector in DR. The country has approximately 3,000 water supply systems, of which only 26% have public management, the remaining 74% are operated by NGOs, with technical assistance from INAPA. Despite the assistance, the quality of the water supplied and the monitoring efforts continue to be deficient. It is estimated that only 25% of the rural systems have sanitary control, and only 14 percent of the inventoried water systems practiced chlorination¹⁴. This has significant potential health impacts, especially for the poor, and notably in relation to water and excreta-related diseases, which are difficult to monitor in a country with 11,488 rural communities. To close the information gap, INAPA is gradually registering the rural systems in SIASAR¹⁵, with the objective to monitor more closely the quality of services, as well as the rural providers' constraints.

¹¹ Monitoring Water and Sanitation Dominican Republic Country Report-MAPAS (INAPA, 2017).

¹² According to INDC document, the 2010 base year emissions in 2010 were set at 3.6 tCO₂e per capita.

¹³ Demographic and Health Survey (ENDESA), 2013.

¹⁴ MAPAS Dominican Republic Country Report, 2017.

¹⁵ Rural Water and Sanitation Information System (SIASAR) registered in Dominican Republic over 414 systems and 1,097 rural communities, www.siasar.org.



To cope with these and other challenges, the Government declared the 2016-2020 period as the “Quadrennium of Water” (*el Cuatrienio del Agua*), proposing a four-pillar strategy and creating, under the MEPyD, a Coordinating Roundtable (*la Mesa del Agua*) responsible for coordinating the actions of public and private entities committed to the preservation and integrated management of watersheds. La Mesa del Agua efforts combined with the proposed Water Law (*Ley de Aguas*) and WSS Law (*Ley de Agua Potable y Saneamiento*), will create the conditions to guide and implement effectively the principles of integrated water resources management and the modernization of the WSS services, supporting the long-term vision developed by the Government in the Development National Strategy (*Estrategia Nacional de Desarrollo – END*).



C. Proposed Development Objective(s)

Development Objective(s) (From PAD)

The Project Development Objectives is to contribute to improved sustainable landscape management and access to water supply and sanitation services in targeted river basins.

Key Results

The approach will take a multisector and integrated spatial approach for the sustainable management of public goods and natural resources (soil, water and vegetation), taking account upstream / downstream impacts; combine measures to support sustainable intensification on the most fertile rain fed and irrigated lands, with landscape restoration and soil and water conservation on degraded land; strengthen resilience in hydraulic assets; reduce pollution load through expansion of access to sanitation; and strengthen institutions. These combined measures will target the most vulnerable population in rural areas, and will aim at reducing the vulnerability to the adverse impacts of climate change, increasing the adaptive capacity and reducing potential conflict around the natural resources especially water resources (quantity and quality aspects).

The project will benefit directly a total of 105,000 families (around 370,000 people) in the two river basins most important economically for the country: (i) Yaque del Norte¹⁶; and (ii) Ozama-Isabela. By adding the urban population indirectly benefitted by the improvement of dam safety, the total of beneficiaries will be 360,000 families (around 1,250,000 people). The breakdown of beneficiaries per sector is provided below.

Direct beneficiaries in the agricultural sector. The direct beneficiaries in the agricultural sector are estimated around 76,000 farmers and 380,000 ha with the following breakdown: (i) 800 organized farmers and 1,790ha benefitted (rain-fed agriculture and ranchers in upper and middle sections of river basin); (ii) 48,900 farmers and 250,000 ha with technical assistance and improved extension services; (iii) 9,925 organized farmers and 41,300 ha benefitted with improved irrigation and drainage services; and (iv) 16,350 farmers and 85,180 ha located downstream the four dams, benefitted by the improvement of dam operation and safety.

Direct beneficiaries of the improvement of Water Supply and Sanitation services. The total number of beneficiaries of Component 3 is estimated at 17,320 families for Sanitation services (around 60,455 people) and 13,050 families for Water Supply services (around 45,560 people).

Indirect beneficiaries by the improvement of Disaster Risk Management. The activities of Subcomponent 2.1 (Dam rehabilitation) will benefit the population living downstream the large dams, especially in the urban area of the city of Santiago de los Caballeros downstream Tavera dam (800,000

¹⁶ The Presidential Decree N°57 (2018) declares as high priority the preservation and sustainable use of Yaque del Norte river basin and creates a presidential commission for development and management of this river basin. A similar Commission was created for Ozama Isabela River Basin in 2014 by the presidential decree N°260.



inhabitants), in the rural areas downstream Chacuey and Maguaca dams (28,000 inhabitants) and rural areas downstream Mijo dam (60,000 inhabitants).

Other beneficiaries are all the governmental and non-governmental institutions involved in agricultural development, management of hydraulic infrastructures, governance of water resources and water supply and sanitations services as described in the description of components.

D. Project Description

Component 1: Sustainable Productive Management of Agroecosystems (US\$20.0 million, all IBRD), organized under three subcomponents:

- (a) Subcomponent 1.1: Support to Productive Use of Natural Resources. The Subcomponent will finance consulting services, goods and works for demand-driven subprojects of investments and technical assistance. The subprojects will benefit agricultural producers' organizations, according to the conditions of each agroecosystem, by promoting Sustainable Landscape Management (SLM) practices such as: (i) agroforestry systems in upper section of river basin; (ii) sustainable ranching systems in upper and middle sections of river basin and; (iii) efficient irrigated agriculture in collective systems managed jointly by INDRHI and by the Water Users Associations in the lower section of river basin. The subcomponent will launch targeted calls for proposals and develop Productive Alliances mechanisms where integrated support is sought to formalize a purchase contract with private allies (supermarkets, exporters, etc.) and / or public (public purchase for schools, etc.). Several calls for proposals will target women and young farmers, especially to develop small-scale irrigation subprojects.
- (b) Subcomponent 1.2: Consolidation of the National System of Soil and Water Conservation (*Sistema Nacional de Conservación de Suelo y Agua-SNCSA*). The project will finance goods, works and consulting services to strengthen the existing public system of agricultural extension for the promotion of sustainable Soil and Water Conservation Practices. The SNCSA is a joint initiative, created in 2013 with the resolution N°36, between the Ministry of Agriculture, the Ministry of Environment and the INDRHI. The subcomponent will finance transportation, rehabilitation of offices, development of innovative tools to improve efficiency and outreach of extension services to the farmers, and operating costs for training and extension activities for, up to sixty staff¹⁷. In addition to their role in the provision of extension services to the farmers, the SNCSA staff will have the following functions related to the Subcomponent 1.1: (i) support to the preparation and implementation of the calls for proposals; (ii) supervision and Audit of subprojects' implementation; and (iii) Monitoring and Evaluation of impacts.
- (c) Subcomponent 1.3: Support to Conservation of protected areas. The project will finance goods, works and consulting services that will contribute to prevent degradation and development of illicit activities (slash and burn agriculture, illegal ranching, etc.) in protected

¹⁷ One for each subzone in the two river basins totalizing 51 for Yaque del Norte and 9 in Ozama-Isabela



areas and buffer zones in the upper section of the river basins, such as: (i) support to the existing oversight program; (ii) physical zoning and delimitation of parks; (iii) support to the existing program of fire prevention; and (iv) preparation and/or update of Management Plans.

Component 2: Enhancement of Resilience and Management of Hydraulic Infrastructures (US\$37.5million, of which US\$16.3 million from IBRD and US\$21.2 million from AFD). This component includes the subcomponents of:

- (d) Subcomponent 2.1: Rehabilitation of dams, improvement of dam operation and risk management. The subcomponent will finance consulting services and works as follows: (i) strengthening of dams' operation, preparation of Risk Management Plans and the design of Flood Control Works; (ii) preparation of studies and designs for the rehabilitation of the dams including the update of feasibility studies carried out under the recently closed Emergency Recovery Project (P109932); and (iii) rehabilitation works and improvement of Dam safety for Chacuey, Tavera and Maguaca dams in the Yaque del Norte River Basin, and the Mijo Dam in the Ozama-Isabela River Basin.
- (e) Subcomponent 2.2: Rehabilitation, modernization and improvement of the operation and maintenance of the irrigation schemes. The project will finance consulting services and works for the large-scale irrigation schemes of Monsieur Bogaert, Mao-Gurabo, Luis Bogaert, Villa Vasquez, Fernando Valerio and Maguaca in the Yaque del Norte basin and for the Mijo-La Luisa system in the Ozama-Isabela Basin. The aforementioned activities will aim at: (i) improving the efficiency of water conveyance and water distribution; and (ii) enhancing water quality. Works will consist of: (a) construction of measurement and control structures; (b) targeted canal lining in prioritized sectors; (c) improvement of the channel capacity regulation; (d) construction of night water storage and water capture structures; (e) protection of open canal from urban sources of pollution; and (f) rehabilitation of the drainage systems. In addition, the component will finance technical assistance to producers and capacity building of the thirty-eight Water User Associations (*Juntas de Regantes*) located throughout the Yaque del Norte basin and for the four WUAs in the Osama - Isabela Basin.
- (f) Subcomponent 2.3: Strengthening of INDRHI's institutional capacities. This subcomponent will finance technical assistance, consulting services and acquisition of goods to: (i) enhance INDRHI's capacities in planning and monitoring, dam management, operation and maintenance; and (ii) strengthen Water Resources Administration (platform for management of water right issuance and users' cadaster).

Component 3: Improvement of Water Supply and Sanitation Services in Prioritized Areas (US\$32.8 million, all IBRD). The component will finance goods, works and consulting services to: (i) strengthen INAPA's capacity to deliver services in urban and rural areas; (ii) expand access to higher quality water and sanitation services in high populated areas considered by INAPA as urban cities and small towns, located in the Yaque del Norte basin; and (iii) in coordination with INAPA, INDRHI, formulate projects to address point source pollution (hotspots) from municipal wastewater that falls



under the service area of different CORAs particularly in the higher areas of Yaque del Norte. This component will have the following subcomponents:

- (g) Sub-component 3.1: Strengthening INAPA's institutional capacity to improve service delivery in targeted areas. This sub-component will include, inter alia: (i) pre-investments to enhance WSS service delivery in targeted areas (feasibility studies, engineering designs, consumer research studies, among others); (ii) strengthening INAPA's capacity to analyze data for decision making, through technical assistance to address current information gaps that are binding for INAPA (strengthening procedures, equipment and information systems, including the expansion of the rural water supply and sanitation monitoring system (SIASAR) to include communities in targeted areas; and (iii) strengthening INAPA's management capacities to improve WSS service delivery in Yaque del Norte (pilot an adaptive management approach with INAPA to identify binding constraints and solutions in water and sanitation service delivery, strengthening planning and monitoring procedures, technical assistance to local water boards (ASCOCAR) and infrastructure and equipment for operation and maintenance of WSS services.
- (h) Sub-component 3.2: Reducing contamination in targeted areas through water supply and sanitation services. This sub-component will finance works that will serve populated areas served by INAPA. These works include, among others: (i) development or rehabilitation of water treatment plant and distribution network in Los Limones, Province of Monte Cristi, Jicomé-Damajagua, Province of Valverde¹⁸; (ii) expansion of sanitary sewer of Mao and Monción, Province of Santiago Rodríguez; and (iii) activities and works to develop sanitation solutions in the upper part of the Yaque del Norte.

Component 4: Capacity Building for Natural Resources Management and Governance, and Project Management (US\$12.6 million, of which US\$10.9 million from IBRD and US\$1.7 million from AFD).

This component includes the following subcomponents:

- (i) Subcomponent 4.1: Support to Integrated Water Resources Management and Governance. The subcomponent will finance goods, works and consulting services for: (i) strengthening of the Water Roundtable (*Mesa del Agua*); (ii) supporting the creation and operation of the two River Basin Councils and the Micro-Watershed Committees (18 for Yaque del Norte and 15 for Ozama Isabela); (iii) the improvement of water use planning at watershed level; (iv) the implementation of sectoral policies to enhance water security (governance, and drinking water, and sanitation) and the agri-food sector; (v) enhancing the impacts of the existing initiative of Payment for Environmental Services through support to the Water Fund for Yaque del Norte river basin (*Fondo del Agua de la Cuenca de Yaque del Norte*); and (vi) the development of a Decision Information Framework (DIF) for each river basin. The DIF will provide all the main stakeholders with information related to water, soil, vegetation, land use and climatic information for planning and risk management; and will be integrated with existing monitoring systems of water quality under Plan Yaque, Plan Sierra, INDRHI's

¹⁸ These small towns are located in INAPA's service Zone 1 in the following Provinces: Monte Cristi, Santiago Rodriguez, Dajabon, and Valverde all of which are fully or partially are located in Yaque del Norte



telemetric network and the Rural Water and Sanitation Information System (SIASAR, *Sistema de Información de Agua y Saneamiento Rural*).

- (j) Subcomponent 4.2: Project Management. The project will finance goods, works, operating costs and consulting services for the management of the project at fiduciary, technical, safeguards levels, including the Monitoring and Evaluation of the project implementation.

E. Implementation

Institutional and Implementation Arrangements

The project will be implemented under the overall coordination of the Ministry of Economy, Planning and Development (MEPyD), which will host the Project Implementation Unit (PIU). Several staff working currently on the Water and Sanitation in Tourist areas project (P054221) will be hired for the PIU, ensuring a capitalization and lessons learned on the existing capacity and experience with World Bank projects' management. This centralized PIU in Santo Domingo will oversee all technical and fiduciary aspects, safeguards and monitoring and evaluation. The PIU will have two regional offices (one in each river basin) to monitor and supervise the activities on the ground and ensure the coordination with the deconcentrated branches of the ministries at Provincial levels, as well with the other local stakeholders.

The Ministry of Agriculture, Ministry of Natural Resources and Environment, INAPA and INDRHI will have a role of technical referents. They will be in charge of preparing all the technical inputs for the bidding documents, supporting the PIU in the activities of supervision, audit and impact evaluation and any other activities agreed in the inter-institutional agreement signed with the MEPyD. They will appoint one or several staff to the PIU (Santo Domingo) or in the Regional office (in the river basins) as liaison with their institution. The liaison officers will coordinate with the respective technical teams in the different institutions to ensure that the institution is complying with the terms of the agreement. The breakdown of responsibilities of the ministries and institutions is detailed as follows:

A steering committee will be created and composed by the Ministers of MEPyD, Ministry of Agriculture and Ministry in charge of Environment (MARENA) and directors of INDRHI and INAPA. The steering committee will discuss and approve the Annual Implementation Plan and budget and will ensure liaison with the Ministry of Presidency.

The National Water Roundtable (*Mesa del Agua*), a coordination body already created, will ensure that the project activities are aligned with the sector policies and fully coordinated with all the other initiatives, programs and projects related to the sectors and the two river basins.

An Evaluation Committee will be created for the implementation of the Subcomponent 1.1. This Evaluation Committee will be composed of technical staff of the PIU (agronomist, environment and social specialists), staff from the Ministry of Agriculture and Ministry of Environment and other key institutional actors such as APEDI or Plan Yaque, the Presidential Commission for Ozama-Isabela, for instance. The Committee will evaluate the requests received for the Calls for Proposals for the subprojects to Farmers' Organization.



F. Project location and Salient physical characteristics relevant to the safeguard analysis (if known)

The project will target two of the largest river basins and amongst the most important economically for the country: (i) Ozama-Isabela; and (ii) Yaque del Norte. The project intervention areas are vast (7,000 km² for Yaque del Norte, 2,700 km² for Ozama-Isabela) encompasses several provinces and densely inhabited. Pressure on Natural Resources in Upper section of both river basins. Both river basins have serious problems of degradation caused by slash-and-burnt agriculture, fuelwood and charcoal consumption for cooking, poor agricultural practices, pollution and deforestation on very steep slopes, with the consequent loss of soils and siltation of dam reservoirs and reduction of water infiltration. Soil erosion and Siltation. Recent bathymetric studies surveys carried out in eight of the main reservoirs provided relevant information for understanding the phenomenon erosion - sedimentation. The results of the bathymetric surveys, revealed that storage losses for the main reservoirs in the Yaque el Norte basin are very important, since in Tavera and Bao the storage capacity was reduced in 24% and 23% % in 43 and 32 years respectively. Presence of considerable hydraulic assets in Yaque del Norte. There are 15 dams in the hydrographic region of the River Yaque del Norte covering a total area of 3,672.10 Km² of catchment. There are four large multi-purpose dams: (i) Tavera dam; (ii) Bao Dam; (iii) López – Angostura Dam; and (iv) Monción. Five hydroelectric power plants are fed by these dams with an energy generation capacity of 114 MW. Water balance is projected to be in deficit in 2025 in Yaque del Norte river basin. The water balance prepared in 2009 for the formulation of the National Hydrological Plan concluded that the projected water demand in 2025 will substantially increase the water deficit, especially in the Yaque del Norte hydrographic region (including the basin of Chacuey). The results of water demand trend and the corresponding deficit considering the average availability of 3,086.46 million m³/year. Discharges of untreated urban wastewater with a high content of organic matter tend to decrease dissolved oxygen, mainly in areas of higher population. A case is the Mao - Gurabo Canal, which runs through the city of Mao receiving discharges of solid waste and domestic wastewater in some of its sections.

G. Environmental and Social Safeguards Specialists on the Team

Ramon E. Anria, Social Safeguards Specialist

Robert H. Montgomery, Environmental Safeguards Specialist



SAFEGUARD POLICIES THAT MIGHT APPLY

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	<p>The Project is proposed to be categorized as B given the potential low to moderate negative environmental and social impacts and risks due to sub-project works that are not anticipated to be significant and can be readily mitigated with standard measures.</p> <p>The Project is expected to generate positive environmental impacts in terms of more effective management of protected areas reforestation, sustainable agriculture, soil conservation and overall improvement of the watersheds conditions through a landscape approach. Positive social impacts are also expected as the Project will have a strong focus on sustainable livelihood options for the people that depend on natural resources for their living within the Project area of influence. The Project will reduce deforestation and biodiversity loss and strengthen the provision of ecosystem services by promoting access to more resilient livelihood options, controlling of anthropogenic pressures and promoting sustainable use of natural resources. The resilient agriculture and landscape approach will stimulate inter-institutional and participatory collaboration for increasing sustainability of land use.</p> <p>The primary potential negative environmental and social impacts are related to civil works associated with Component 1 (small sub-projects for agroforestry, ranching and rain-fed agriculture projects), Component 2 (relatively limited and focused rehabilitation of portions of existing dams and irrigation schemes) and Component 3 (construction of relatively small water supply systems and waste water plants in small urban areas). The potential negative impacts could include land acquisition, resettlement, impact on private structures, or loss of economic assets such as agricultural crops and fruit trees. They could also result in common-seen construction work impacts such as dust, noise, waste generation, etc. for all</p>



three components. No significant cumulative impacts are anticipated.

As the designs for specific sub-project investments and their physical location will only be developed (using project funds) during Project implementation for component 1, portions of component 2, and most likely all or significant portion of component 3, the project prepared an Environmental and Social Management Framework (ESMF) and a Resettlement Policy Framework (RPF). The ESMF include screening criteria and process/procedure and potential standard environmental mitigation and monitoring measures for the likely types of sub-projects to be developed. The ESMF also defines the requirements for Environmental and Social Management Plans (ESMPs) for applicable sub-projects.

The ESMPs cover all the necessary ESIA related elements of an ESIA, as defined under OP 4.01.

For those sub-projects in component 2 that have already design studies (e.g., rehabilitation works for Maguaca and Chacuey dams), an ESMP has been developed. ESMPs was also prepared for any component 3 sub-projects (water supply and sanitation related) that are included in the Project and have established designs.

The ESMF includes references to the applicable WBG Environmental Health and Safety Guidelines, i.e. Water and Sanitation; Mammalian Livestock Production; Forest Harvesting (relevant sections on managed natural forests).

Natural Habitats OP/BP 4.04

Yes

The upper section of the Yaque del Norte river basin encompasses a large portion already designated as Natural Parks. Nevertheless, slash and burn agriculture practices within the National Parks and in buffer zones, have reduced their capacities to provide ecosystem services, mainly on its water production capabilities. The project is expected to expand benefits to natural habitats in high mountains and steep slopes lands within the



National Parks under Subcomponent 1.3. (support to park guard, physical zoning and delimitation of parks; fire prevention). Subcomponents 1.1 and 1.2 will support sustainable practices of soil and water management and promote agroforestry systems in the private areas surrounding the targeted protected areas (buffer zones and upper and middle portion of river basin). This will reduce the ongoing unwanted practices and pressures that these natural areas are receiving; thus, will aid protecting suitable habitats for biodiversity. The ESMF for Component 1 (sub-projects for agroforestry, ranching and rain-fed agriculture) will include procedures to assess and manage potential negative impacts on natural habitat. Capacity building to the Ministry of Agriculture and Ministry of Environment (Components 1 and 4) will also strengthen capacities for implementing practices among the areas communities for protection of natural habitats and biodiversity sustainability.

The Project is expected to generate positive impacts on forests through support for integration and management of forests within agricultural production systems through restoration and natural regeneration of native vegetation and promotion of agricultural practices that secure conservation and promote establishment of forest patches in agricultural landscapes (e.g. agroforestry and silvopastoral systems). Some of the livelihood activities to be promoted might entail use of forest resources.

Forests OP/BP 4.36

Yes

Associated with Component 1 (sub-projects for sustainable agroforestry, ranching and rain-fed agriculture), any forest area involved with the Project area is expected to be small-scale and/or low impact in nature. The ESMF will define eligibility criteria (including only those that comply with existing legal framework) and safeguard requirements including assessment of impacts and standards and practices applicable to community or small-scale forestry activities. Portions of the capacity building to the Ministry of Agriculture and Ministry of Environment (component 1) should also assist in improving forest protection.



The Project will support vegetation restoration activities and the adoption of forest-friendly production practices such as agro-forestry, and other agricultural and husbandry practices, which will favor integrated, natural methods for managing pests. However, certain cases like control infestation might require use of chemical pesticides or other agricultural chemicals, always excluding yellow and red label products.

Pest Management OP 4.09

Yes

The Project ESMF for Component 1 includes preventive and mitigation measures for pest management compatible with OP 4.09 to guide related Project activities, as well as clear restrictions on not permitted use of stronger toxic chemicals. Depending on the scale of project activities which would include pest management, during project preparation an assessment will be made whether these measures can be included in the EA instruments under 4.01 or if a stand-alone Integrated Pest Management Plan is needed.

Physical Cultural Resources OP/BP 4.11

Yes

This safeguard is triggered as a precaution in any project involving civil works. Chance finds procedures is detailed in the ESMFs and applicable sub-project ESMPs developed under 4.01.

Indigenous Peoples OP/BP 4.10

No

OP 4.10 should not be triggered as there are no distinct Indigenous Peoples in the Dominican Republic that fulfill the four characteristics indicated under this policy.

Involuntary Resettlement OP/BP 4.12

Yes

OP 4.12 should be triggered considering that the planned civil works associated with Component 3 (construction of water supply systems and waste water plants in small rural or urban areas) and Component 2 (relatively limited focused rehabilitation of portions of existing dams) could have some adverse impacts. These include: land acquisition leading to involuntary resettlement, including the loss of income sources and means of livelihood, such as the loss of trees and crops. Resettlement Policy Framework (RPF) was prepared by the government with guidance from the Bank to address the triggering of OP 4.12. RPF was consulted and disclosed by appraisal. Upon the identification



of cases of involuntary resettlement, Resettlement Action Plans (RAPs) or Abbreviated Resettlement Action Plans (Abbrev. RAPs) will be prepared, consulted and disclosed in accordance with the policy.

The Component 2 includes some rehabilitation works on four dams (Maguaca, Chacuey, Tavera and Mijo) in order to improve dam safety and reservoir operation. The project will allow a better protection to flood damages for downstream population and assets.

The dams have the followings characteristics:

- Tavera dam (height 80 m, storage volume 173 million m3)
- Chacuey dam (height 34 m, storage volume 13.7 million m3)
- Maguaca dam (height 26 m, storage volume 15.6 million m3)
- Mijodam (height 17.2 m, storage volume 2.3 million m3)

When substantial dam safety remedial works / measures are needed, the Bank requires that: (i) the works be designed and supervised by competent professionals; and (b) the dam safety plans be prepared and implemented as for new Bank-financed dams. For high-hazard cases involving significant and complex remedial work, the Bank also requires that a panel of independent experts be employed on the same basis as for new Bank-financed dam. The international Safety Panel of Experts (PoE) established for the previous project will be used for the proposed project with an additional expert for sediment management. The Terms of Reference for the hiring of experts will be updated. The INDRHI will strengthen its team with dedicated dam specialists, and the Bank will also provide adequate supervision and due diligence. The Bank also requires periodic safety inspections of the dam after completion.

For both the dams that have prepared the design for rehabilitation works (e.g., Maguaca and Chacuey dams), and the ones that have not prepared the rehabilitation work designs and to be developed

Safety of Dams OP/BP 4.37

Yes



during project implementation (e.g., Mijo and Tavera dams), the Preliminary O&M Plan and Framework Emergency Preparedness Plan (EPP) have been drafted and will be confirmed during appraisal. Tavera dam has prepared a more detailed O&M Manual to be upgraded. The full-fledged O&M Plan and EPP for all dams will be prepared based on additional studies and surveys during the early phase of project implementation. The ESMF includes the process for establishing the necessary plans to comply with OP/BP4.37.

Projects on International Waterways
OP/BP 7.50

No

This policy should not be triggered because it will not affect International Waterways OP/BP 7.50. None of the situation described below applies to the two river basins targeted (Yaque del Norte and Ozama-Isabela) :

- (a) any river, canal, lake, or similar body of water that forms a boundary between, or any river or body of surface water that flows through, two or more states, whether Bank1members or not;
- (b) any tributary or other body of surface water that is a component of any waterway described in (a) above; and
- (c) any bay, gulf, strait, or channel bounded by two or more states or, if within one state, recognized as a necessary channel of communication between the open sea and other states-- and any river flowing into such waters.

Projects in Disputed Areas OP/BP 7.60

No

This policy should not be triggered because the proposed project will not affect disputed areas as defined under the policy OP/BP 7.60

KEY SAFEGUARD POLICY ISSUES AND THEIR MANAGEMENT

A. Summary of Key Safeguard Issues

1. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts:

Environmental Category and Proposed Works. The project was identified as of Substantial Risk level, and classified as B. Most of the environmental and social impacts are related to a series of diverse low to moderate impact activities to be financed by the project; these are: conservation of natural parks and reserves, improving agriculture, agroforestry and ranching practices, financing the reconstruction and works on dams, levees, restoring of irrigation systems, and



the construction of rural aqueducts and sanitation services. These activities were environmentally assessed using an ESMF and specific EMP to comply with the triggered Safeguards Policies for the project. It was defined that none of these activities to be financed could generate large, significant or irreversible impacts.

For both the dams that have prepared the design for rehabilitation works (e.g., Maguaca and Chacuey dams), and the ones that have not prepared the rehabilitation work designs and to be developed during project implementation (e.g., Mijo and Tavera dams), the Preliminary O&M Plan and Framework Emergency Preparedness Plan (EPP) have been drafted and will be confirmed during appraisal. Tavera dam has prepared a more detailed O&M Manual to be upgraded. The full-fledged O&M Plan and EPP for all dams will be prepared based on additional studies and surveys during the early phase of project implementation. The ESMF includes the process for establishing the necessary plans to comply with OP/BP4.37.

2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area: With the development of the project, the indirect impacts that could be generated by the planned works are mostly localized, punctual and of short duration related to potential accidental spills and waste generation that could affect the soils and water due to works nearby rivers and sloped areas. It has also been assessed some potential future indirect impacts that could occur by the extension of irrigated production areas due to the improvement of water availability for irrigation in the lower section of river basin. Nevertheless all those above mentioned anticipated impacts will be mitigable and manageable. The ESMF and ESMPs prepared for the project includes measures to reduce current and future impacts of activities following the guidance of the triggered policies for the project. The project includes the development of the environmental management system and monitoring that will require the parties to remediate any other activities to reduce long term impacts on the project areas. Those positive social impacts of the project interventions in poor and rural areas can be linked to increase opportunities for education, living and community security.

3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts.

In Components 2 and 3, all activities have already been selected, being them, the rehabilitation or upgrading of existing infrastructures such as dams, irrigation canals and related support infrastructures, aqueducts for Water Supply and sewage infrastructures on existing rural towns and communities. Nevertheless, for some investments, the feasibility studies will have to be completed during project implementation, including the selection of the best alternatives at technical, social, economic and environmental levels.

In Component 1, the improvement of agricultural, agroforestry and ranching practices are to be implemented on existing farms and production facilities based on demand-driven processes. The analysis of request for subprojects will be analyzed by an Evaluation Committee who will assess the best alternatives for intervention.

4. Describe measures taken by the borrower to address safeguard policy issues. Provide an assessment of borrower capacity to plan and implement the measures described.

The borrowers have produced an Environmental and Social Management Framework (ESMF), a Resettlement Policy Framework (RPF) and specific Environmental and Social Management Plan (ESMP) for two of the components for the project. The Project Implementation Unit (PIU) of the Ministry of Economics Planning and Development (MEPyD) will hire social environmental specialists who will be responsible for monitoring and supervising compliance of all the participating agencies following the ESMF-ESMP prepared for this purpose, as well as those activities of components and other agreements with the agencies for project implementation. The PIU will have environmental and social specialists in Santo Domingo in the headquarters of the PIU and in the two project offices in the river basins. MEPyD will prepare comprehensive safeguards reports each semester for all project implementing units in all participating



agencies and submit to the Bank in an agreed time frame.

The Environmental and social specialists of the PIU will contract consultants or auditors as needed to support supervision. The PIU will also coordinate with the coordinator of the Social Unit of each agency on the implementation of communication plans and application of agreed grievance mechanisms. Bidding documents will include environmental clauses and works preparation and mitigation will follow procedures and arrangements described in the ESMF and ESMPs prepared for the project. During implementation, as needed, the Bank might request additional mitigation measures to prevent, mitigate or remediate potential impacts that can occur. The ESMF and ESMPs of the project are an integral part of the project Operational Manual (POM) of this project.

Of the five participating organizations, three have no internal mechanisms to measure the effects of their projects: (a) Ministry of Planning, Economy and Development; (b) Ministry of Agriculture and (c) Ministry of Environment and Natural Resources. Regardless of mechanisms within the Ministry of Environment through their Vice Ministry of Environmental Management to track the impacts of private sector activities, there is no agreed-upon structure to monitor impacts implemented by them or as a result of their own activities.

Two Agencies, The National Institute for Potable Water (INAPA) and the National Institute for Hydraulic Resources (INDRHI) have structures in place for tracking of environmental issues within the scope of their mandates. These, described below, will be an asset in addressing the issues related to Components 2 and 3. These will however not support the range of actions under components 1 and 4. The existing infrastructure is summarized as follows: INDRHI is an institute of the Ministry of Environment and Natural Resources. This relationship does not translate into open communication and coordination. INDRHI's environmental unit is not operationally connected to the Ministry of Environment. INDRHI's division of environmental impact is a dependency of the Environmental Management Department of their Planning Administration. The Environmental Management Department is the Watershed Management Division. This relationship is advantageous for the focus on environmental management within the watershed context. The role of the Environmental Administration Division is to comply with all environmental instruments from the planning stage through implementation. This effort is operational through the environmental impact division, whose role is: (i) realize environmental assessments; (ii) oversight and quality control over environmental service contractors; (iii) realize baseline studies; (iv) internal oversight of INDRHI compliance, and (v) liaise with the Vice Ministry of Environmental Management at the Ministry of Environment and Natural Resources. The Watershed Management Division adds a dimension of coordination with multiple actors at the watershed level. Although INDRHI has an adequate structure on paper, it is underfunded and the key positions mentioned have been unstaffed for almost 10 years. The functions of the chief of the Environmental Impact Division and the Watershed Management division have been realized by the leader of the Evaluation section of the planning division and by the leader of the watershed conservation office.

INAPA has an identical unit with an almost identical mandate with similar linkages to the Ministry of Environment and Natural Resources that also facilitates permitting. Like INDRHI, the unit does not receive the financial attention it deserves leaving the unit under-financed and under-staffed. Both INDRHI and INAPA have experience in managing projects with multi-lateral institutions and extensive experience in working with international and national consultants in compliance with international standards.

For the project to adequately address the multiple safeguards, the existing units in INDRHI and INAPA will provide important structures to MEPYD during the implementation phase. These units can be improved and used by MEPYD in the baseline assessments and environment-related monitoring aspects and thus add a layer of capacity building. Additionally, at the watershed level, multiple actors, such as the Presidential Commission for the Ozama River and Plan Yaque, among others, have well-staffed environmental units with qualified personnel. These organizations are in



touch with all local organizations. Under the leadership of the Project Implementation Unit, they can easily multiply the safeguards and promote a participative monitoring process that will mainstream the safeguards as an important tool to be included in the watershed management plans and within the culture of the watershed management councils proposed in Component 4. To do so, the project management unit will require a small but well connected environmental management team that can liaise with the above mentioned and coordinate targeted technical assistance and capacity building to respond to the mentioned capacity gaps.

The project also includes activities of environmental and social strengthening such as: (i) training and support to enhance the planning and supervision capacities of the Environmental Units for the project participating agencies; (ii) training and assisting the beneficiaries of project financial support on Environmental Education and Management Practices; and (iii) design and implementation of a Program Action Plan related to environment, health, and safety aspects.

5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people.

The key stakeholders are farmers involved in irrigation and drainage services, ranchers in upper and middle sections of the river basin, water users organization for irrigated agriculture, water users for WSS, the two presidential committees for river basin management (Yaque del Norte and Ozama-Isabela) and local and central level departments tied to Ministries of Planning, Agriculture and Environment, and the agencies (INDRHI and INAPA) that will be involved in the implementation of project activities. Other interested parties include local civil society organizations (NGOs such as Plan Yaque, Plan Sierra for instance), media and donors (AFD, BEI and Spanish Cooperation) that invest in agriculture and water sectors in the country.

The project design, the ESMF and the ESMPs were consulted during public events held on February 5 and 7, 2018. The draft documents were disclosed to the public in-country on MEPyD's website on February 12, 2018. Final documents were disclosed to the public both in-country on MEPyD's website (on website:

<http://economia.gob.do/agua/proyecto-agricultura-resiliente-gestion-integral-los-recursos-naturales-las-cuencas-rio-yaque-del-norte>) on February 26, 2018 and at the World Bank's external website respectively on February 23, 2018.

A Resettlement Policy Framework has been prepared by the Borrower under the supervision of the safeguards specialist, consulted with the main stakeholders, including on two public events held for each river basin on February 5 and 7, 2018, and was disclosed, as draft version, in-country on February 12, 2018. The final version was disclosed to the public both in-country on MEPyD's website (<http://economia.gob.do/agua/proyecto-agricultura-resiliente-gestion-integral-los-recursos-naturales-las-cuencas-rio-yaque-del-norte-ozama-isabela>) and at the World Bank's external website on February 21, 2018. Once the sites are identified, further detailed consultations that will take place with direct beneficiaries during project implementation. People affected by involuntary resettlement will be consulted on compensation and resettlement policies in accordance with OP4.12.



B. Disclosure Requirements

Environmental Assessment/Audit/Management Plan/Other

Date of receipt by the Bank 29-Dec-2017	Date of submission for disclosure 23-Feb-2018	For category A projects, date of distributing the Executive Summary of the EA to the Executive Directors
--------------------------------------------	--------------------------------------------------	----------------------------------------------------------------------------------------------------------

"In country" Disclosure

Dominican Republic
26-Feb-2018

Comments

ESMF and the two ESMPs were disclosed in-country on the website: <http://economia.gob.do/agua/proyecto-agricultura-resiliente-gestion-integral-los-recursos-naturales-las-cuencas-rio-yaque-del-norte->

Resettlement Action Plan/Framework/Policy Process

Date of receipt by the Bank 29-Dec-2017	Date of submission for disclosure 21-Feb-2018
--------------------------------------------	--------------------------------------------------

"In country" Disclosure

Dominican Republic
21-Feb-2018

Comments

on website: <http://economia.gob.do/agua/proyecto-agricultura-resiliente-gestion-integral-los-recursos-naturales-las-cuencas-rio-yaque-del-norte-ozama-isabela/>

Pest Management Plan

Was the document disclosed prior to appraisal? NA	Date of receipt by the Bank	Date of submission for disclosure
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"In country" Disclosure



If the project triggers the Pest Management and/or Physical Cultural Resources policies, the respective issues are to be addressed and disclosed as part of the Environmental Assessment/Audit/or EMP.

If in-country disclosure of any of the above documents is not expected, please explain why:

C. Compliance Monitoring Indicators at the Corporate Level (to be filled in when the ISDS is finalized by the project decision meeting)

OP/BP/GP 4.01 - Environment Assessment

Does the project require a stand-alone EA (including EMP) report?

Yes

If yes, then did the Regional Environment Unit or Practice Manager (PM) review and approve the EA report?

Yes

Are the cost and the accountabilities for the EMP incorporated in the credit/loan?

Yes

OP/BP 4.04 - Natural Habitats

Would the project result in any significant conversion or degradation of critical natural habitats?

No

If the project would result in significant conversion or degradation of other (non-critical) natural habitats, does the project include mitigation measures acceptable to the Bank?

NA

OP 4.09 - Pest Management

Does the EA adequately address the pest management issues?

Yes

Is a separate PMP required?

No

If yes, has the PMP been reviewed and approved by a safeguards specialist or PM? Are PMP requirements included in project design? If yes, does the project team include a Pest Management Specialist?

NA

OP/BP 4.11 - Physical Cultural Resources

Does the EA include adequate measures related to cultural property?

Yes

Does the credit/loan incorporate mechanisms to mitigate the potential adverse impacts on cultural property?

Yes



OP/BP 4.12 - Involuntary Resettlement

Has a resettlement plan/abbreviated plan/policy framework/process framework (as appropriate) been prepared?

Yes

If yes, then did the Regional unit responsible for safeguards or Practice Manager review the plan?

Yes

OP/BP 4.36 - Forests

Has the sector-wide analysis of policy and institutional issues and constraints been carried out?

Yes

Does the project design include satisfactory measures to overcome these constraints?

Yes

Does the project finance commercial harvesting, and if so, does it include provisions for certification system?

No

OP/BP 4.37 - Safety of Dams

Have dam safety plans been prepared?

Yes

Have the TORs as well as composition for the independent Panel of Experts (POE) been reviewed and approved by the Bank?

Yes

Has an Emergency Preparedness Plan (EPP) been prepared and arrangements been made for public awareness and training?

Yes

The World Bank Policy on Disclosure of Information

Have relevant safeguard policies documents been sent to the World Bank for disclosure?

Yes

Have relevant documents been disclosed in-country in a public place in a form and language that are understandable and accessible to project-affected groups and local NGOs?

Yes



All Safeguard Policies

Have satisfactory calendar, budget and clear institutional responsibilities been prepared for the implementation of measures related to safeguard policies?

Yes

Have costs related to safeguard policy measures been included in the project cost?

Yes

Does the Monitoring and Evaluation system of the project include the monitoring of safeguard impacts and measures related to safeguard policies?

Yes

Have satisfactory implementation arrangements been agreed with the borrower and the same been adequately reflected in the project legal documents?

Yes

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APPROVAL

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Country Director:	Sabine Hader	01-Mar-2018

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