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Project Information Document/ Integrated Safeguards Data Sheet (PID/ISDS)

Concept Stage | Date Prepared/Updated: 15-Jan-2018 | Report No: PIDISDSC22633



BASIC INFORMATION

A. Basic Project Data

Country Nicaragua	Project ID P164286	Parent Project ID (if any)	Project Name Nicaragua: Support to the implementation of the National Water Resources Plan (P164286)
Region LATIN AMERICA AND CARIBBEAN	Estimated Appraisal Date Nov 14, 2018	Estimated Board Date Feb 12, 2019	Practice Area (Lead) Water
Financing Instrument Investment Project Financing	Borrower(s) Ministry of Finance and Public Credit	Implementing Agency Empresa Nicaraguense de Acueductos y Alcantarillados Sanitarios	

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Proposed Development Objective(s)

The Project Development Objective is to i) strengthen the institutional capacity for water resources management at national level; ii) promote planning and implementation of resilient water infrastructure¹; and iii) improve the recipient’s capacity to respond promptly and effectively to an eligible emergency.

Financing (in USD Million)

Financing Source	Amount
International Development Association (IDA)	50.00
Total Project Cost	50.00

Environmental Assessment Category A-Full Assessment	Concept Review Decision
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Have the Safeguards oversight and clearance functions been transferred to the Practice Manager? (Will not be disclosed)
No

¹ Second part of the PDO will be revised once the infrastructure investment under component 2.2 is selected.



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Other Decision (as needed)

B. Introduction and Context

Country Context

- Nicaragua has experienced a significant economic turnaround over the past 20 years.** From 1994 to 2015, Gross Domestic Product (GDP) growth has averaged 4 percent per year. The recovery has been due to prudent macroeconomic management, demographic changes, and a recovery from a very low base. The Government's pro-poor agenda has emphasized delivery of infrastructure and services, particularly in poor rural areas. Thus, Nicaragua saw a significant reduction in overall poverty (defined as people living under US\$ 1.60 per day) with drops from 42.5 percent in 2009 to 26.9 percent in 2014. Meanwhile, extreme poverty declined 6 percent, from 14.6 percent in 2009 to 8.3 percent in 2014. The incidence of poverty is the highest in rural areas; rural poverty is estimated at 50.1 percent (of which 16.3 percent are in extreme poverty)².
- Despite good economic performance, Nicaragua remains one of the poorest countries in Latin America and the Caribbean (LAC).** GDP per capita in 2015 was approximately US\$2,087, the second lowest in LAC. Despite progress made, about 30 percent of the population remained below the official poverty line in 2014, with a higher prevalence of poverty in rural areas and remote communities, where 68 percent of people live on less than US\$2 per day³. In terms of concentration, about half of the poor lived in the Central region and roughly a quarter lived in the Caribbean region in 2014, with the other 25 percent distributed between Managua and the Pacific region. Many departments of the Central region are in areas highly exposed to hydro-meteorological events. Consequently, natural hazards and climate change could eventually intensify poverty conditions in this Region. Furthermore, all across Nicaragua, climatic shocks and natural disasters could foster downward income mobility since the largest economic group consists of non-poor Nicaraguans who are at risk of falling into poverty if hit by shocks, and who graduated from poverty through an increase in earnings in the agricultural sector⁴ which is more exposed to climate and natural shocks.
- The Government of Nicaragua (GoN) is working to overcome these challenges, prioritizing sustained economic growth and the reduction of poverty and inequality.** In its National Human Development Plan⁵ (PNDH), the Government of Nicaragua (GON) has developed policies and strategies to promote more inclusive growth. The PNDH has a strong focus on the promotion of agroindustry, and on providing increased access to water and sanitation services, expansion of electricity access, the development of tourism infrastructure, and the implementation of climate change adaptation measures among others⁶.

² National Development Information Institute, INIDE (2014): *Living Standards Measurement Survey*.

³ IFAD, 2014 *Rural Poverty in Nicaragua*

⁴ The Agricultural sector contributed to an 80 percent reduction in poverty

⁵ Government of Nicaragua National Human Development Plan (*Plan Nacional de Desarrollo Humano, PNDH 2012-16*)

⁶ National Human Development Plan 2012 – 2016. Government of Nicaragua.



Sectoral and Institutional Context

4. **Sustainable and efficient water resources management is critical to sustain the main productive sectors in Nicaragua, consolidate economic growth and the recent gains in poverty reduction.** At the national level, the total water demand for the main economic sectors and human consumption is estimated at 1,367 million m³/year. Out of this volume, irrigated agriculture takes up to 70 percent of the total demand; human consumption demands represents 23 percent; manufacturing 3.7 percent, and livestock farming 3.3 percent. Additionally, hydropower diverts 0.5 million m³/year. A recent study led by the Central Bank of Nicaragua⁷ estimated that annually 1 million m³ currently contributes to US\$ 5.9 million in the GDP. By using a general equilibrium model this study concluded that an improvement in water availability to the productive sectors could translate into a net increase of US\$ 1,000 – 1,370 million in the next 20 years⁸. Nevertheless, this potential is at risk.
5. **Important spatial and temporal imbalances exist at the national level between water availability and current water demand⁹.** This is particularly relevant given the country's high vulnerability to extreme hydro-meteorological events¹⁰. Between 2014 and 2015, El Niño weather event resulted in significant reductions in rainfall patterns, causing sizable losses in primary economic activities¹¹ and affected the Pacific and Central Regions, mainly in the area of the Dry Corridor (*Corredor Seco*), posing significant threats to human water supply and food security. Risk associated with meeting water demand are particularly important between November and April in the Pacific and Central Region where almost 90 percent of the population resides and where most economic activity is located. Additionally, future projections under 2030 climate change scenarios coupled with water demand estimates provide evidence that water deficits and pressure over these regions will worsen¹² posing a risk to future economic growth.
6. **The lack of hydraulic infrastructure exacerbates the impacts of water variability and poses an increasing risk to groundwater resources.** The deficit of hydraulic infrastructure to store and regulate water for the dry season has led to intensive groundwater use, particularly during the driest months (November – April)¹³. Out of the 27 identified aquifers in Nicaragua, 12 of them register significant and worrisome drawdowns since 2010. These aquifers represent an important water supply for the most populated and productive regions of the country (Pacific and North-Central Regions) as it is estimated that 80 percent of the population is supplied with groundwater¹⁴.
7. **Challenges in the provision of water information and river basin management tools hinder effective water resources management to respond to the growing water demands and the existing climate risks.** Reliable, timely, good quality and publicly available water resources information is a serious limitation in Nicaragua. The prevailing scarcity and dispersion of water resources data and information and limited capacity to generate water information products undermine prospects for effective decision making. River basin planning in Nicaragua also faces challenges in terms of public/water user's participation in the planning process, inter-sectoral coordination, environmental and climate change considerations, and harmonized approaches.
8. **The deterioration of water quality and the lack of continuous monitoring also pose a risk to economic development, environmental sustainability and public health.** Surface water resources are mainly affected by point

⁷ Technical background document for the development of the National Water Resources Plan

⁸ National Water Resources Plan: Technical Diagnostic and Strategic Lines Proposal. Government of Nicaragua, World Bank (2017)

⁹ National Water Resources Plan: Technical Diagnostic and Strategic Lines Proposal. Government of Nicaragua, World Bank (2017)

¹⁰ The 2013 Global Climate Risk Index places Nicaragua fourth in its lists of countries most affected by climate change. (Germanwatch, 2013)

¹¹ Agricultural losses for the 2015/16 cycle are estimated at US\$ 35 million (FUNIDES, 2016).

¹² National Water Resources Plan: Technical Diagnostic and Strategic Lines Proposal. Government of Nicaragua, World Bank (2017)

¹³ National Water Resources Plan: Technical Diagnostic and Strategic Lines Proposal. Government of Nicaragua, World Bank (2017)

¹⁴ Idem.



source pollution from untreated domestic and industrial waste and wastewater discharges due to low sanitation coverage,¹⁵ poor solid waste and sewage treatment infrastructure. Groundwater resources' quality is deteriorating due to diffuse pollution coming from fertilizers and pesticides used in agriculture. Although, field data is not available, an estimation of pollution charges done for the NRWP indicated that industrial activities such as mining, tannery and abattoirs are a growing risk to ground and surface.

9. **While all of these factors impact the management of water resources, the institutional dimension requires special attention.** The current institutional framework for water resources management is weak and the Government has limited capacity for the management of water resources. The National Water Authority (*Autoridad Nacional del Agua* - ANA) is responsible for the overall management of water resources.¹⁶ Nicaragua's Institute for Territorial Studies (*Instituto Nicaragüense de Estudios Territoriales* - INETER) is responsible for the inventory and assessment of water resources. It is also responsible for operating the meteorological, hydrological and hydrogeological networks throughout the country. The Ministry of Environment and Natural Resources (*Ministerio del Ambiente y los Recursos Naturales* - MARENA) is responsible for the formulation of environmental policies. MARENA in coordination with ANA and INETER defines environmental flows and the minimum water quality conditions for environmental preservation. It also establishes the norms to prevent water pollution and proposes water discharges fees. The Ministry of Agriculture (*Ministerio Agropecuario* -MAG), in coordination with ANA is responsible for the promotion of irrigation projects. Finally, Nicaragua's Water and Sewerage Utility (*Empresa Nicaragüense de Acueductos y Alcantarillados Sanitarios* -ENACAL) is the water utility responsible for the delivery of water supply and sanitation services and was recently assigned responsibility for the coordination and preparation of the NWRP by the Executive Office.
10. **The main institutional issues relate to:** i) ANA's limited capacity to fulfil the responsibilities assigned in the existing General Law on National Water Resources (Law 620); ii) the existence of several institutions (16 in total) involved in the management of water resources with different technical capacities and roles and without a formal coordination mechanism iii) a weak system for water concessions allocation; iv) lack of financing mechanisms for public administration and investments; and v) the lack of technical capacity and policies to promote necessary hydraulic infrastructure investments. In addition, there is very limited organization of water users, particularly in agriculture. Compliance with legislation on water rights and protection of watersheds is also a weakness in the institutional framework.
11. **To address these issues and as a direct response to the 2014-2015 drought, in mid-2015, the GoN led a technical cooperation for the development of a National Water Resources Plan (NWRP) in collaboration with the World Bank and with contributions from the Spanish Cooperation Agency (AECID).** This planning exercise, conceived within the General Law on National Water Resources (Law 620), aims at achieving more effective, productive and rational management of water resources, bearing in mind the conservation of natural resources and the environment. Moreover, the Plan aims at establishing the priorities for water use, water conservation and water quality, the responsibilities for its implementation and the source and distribution of the financing requirements. For the formulation of the NWRP, the GoN created the Interinstitutional Commission on Water Resources¹⁷. Led by ENACAL, the Commission was responsible for implementing tasks necessary for the preparation of the 2015-2030 NWRP

¹⁵ Over 60 and 40 percent of Nicaraguans do not have access to water supply and sanitation services, respectively. Nicaragua Systematic Country Diagnostic. World Bank (2017)

¹⁶ The main functions of ANA are: developing river basin plans, issuing and regulating water concessions, issuing permits for waste water discharge, establishing water fees, and declaring flood risk areas.

¹⁷ The members of the Interinstitutional Commission on Water Resources are: The Ministry of Planning and Public Credit (MHCP), the Ministry of Agriculture (MAG), the Ministry of Environment and Natural Resources (MARENA), the National Water Authority (ANA), the Social Emergency Investment Fund (FISE), the Ministry of Energy and Mines (MEM) and Nicaragua's Institute for Territorial Studies (INETER).



Technical Diagnostic and Strategic Lines¹⁸. World Bank technical support was provided through the *Integrated Water Resources Management in Nicaragua and the Dry Corridor* NLTA (P158256) which closed in November 2017. The National Water Resources Plan is currently being ratified by the Office of the President.

12. **As a result of the engagement developed through this technical assistance, the GoN requested World Bank support to develop an investment project that will contribute the implementation of the NWRP.** The proposed Project would help launch a first set of investments to lay the foundation for the development of the NWRP in key priorities areas: (i) improvement of water availability; (ii) reduction of climate risks (iii) management of water quality; (iv) improved management of ground water resources; and (v) strengthening of the institutional framework and developing tools for water financing. It is expected that the proposed Project could contribute to leveraging additional financing sources. To this end, roundtable discussions with various potential development partners such as the European Union (EU), AECID, the Interamerican Development Bank (IDB) and the private sector are expected to take place in late February 2018. The discussions will seek to finetune coordination arrangements among the various development partners and to develop a roadmap for the implementation of the NRWP.

Relationship to CPF

13. **The proposed Project is consistent with the World Bank Country Partnership Framework (CPF) for the period FY18-FY22.** The Project will specifically contribute to the sixth CPF strategic objective, under Pillar 3, which is *to improve natural resource management and reduce vulnerability to climate change*. In this regard, the Project focuses on supporting more efficient and sustainable water resources management through the development of tools and instruments to address key challenges such as flood and drought risk management as well as climate change mitigation and adaptation. The proposed operation will also contribute to strategic objective 7, *Improved Government transparency and capacity building*, by supporting institutional strengthening for better public-sector management for water, irrigation and energy services provision.
14. **The Project is likewise aligned to two priority areas of the 2017 Nicaragua Systematic Country Diagnostic (SCD, Report no 116484-NI).** The SCD recognizes that Nicaragua’s capacity to grow in a sustainable manner depends heavily on how well its natural resources (soil, water and forests) are managed. The SCD also calls for the improvement of water resources management to secure current and future water demands, which will require smart investments in water storage infrastructure, aqueducts, coupled with effective water management, institutional strengthening and local-level capacity building. Accordingly, the proposed Project would be aligned with two SCD priorities, *“Priority #2: Provision of infrastructure (transport, energy, and water) and public service delivery”*, and *“Priority #4: Reduction of vulnerabilities from climate change and management of natural resources (water, forestry, and land)”*, as well as the SCD cross-cutting theme *“strengthening institutions and public-sector efficiency.”*
15. **The Project likewise contributes to the World Bank’s Twin Goals.** The Project aims at improving water resources information and management tools at national level. The strengthening of these tools is expected to help the GoN better mitigate the risks associated with extreme events, which often disproportionately affects the poor and vulnerable groups. Moreover, it will contribute to securing water resources for productive uses, particularly in the agricultural sector which has been the driver of economic growth and poverty reduction in the recent years¹⁹.

¹⁸ The National Water Resources Plan: Technical Diagnostic and Strategic Lines Proposal is the main output of the NLTA P158256: “Integrated Water Resources Management in Nicaragua and the Dry Corridor”

¹⁹ Nicaragua Systematic Country Diagnostic. World Bank (2017)



16. **Relationship to other Bank funded projects.** The proposed Project will provide technical inputs and recommendations for the development of water resources management plans for agricultural productivity at the local level under the Nicaragua Dry Corridor Climate-Resilient Agriculture Project (162982). The latter operation is being prepared in parallel and is expected to be approved in May 2019. The results from the Bank funded activities “Setting the Basis for Water Security in Central America” (P166057) and “Modernization Plan for Hydrometeorological and Climate Services in Nicaragua” (P155112) will inform the present operation’s design by advising GoN in identifying capacity building needs. They will also inform the design of water resources management tools, such as river basin planning guidelines and in the definition of water information products. In addition, the proposed operation will build upon lessons learned and activities resulting from the implementation of the GEF-funded Resilient Landscapes Management Project (P160688) and Greater Managua Water and Sanitation Project -PRASMA (P110092).

C. Proposed Development Objective(s)

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17. The Project Development Objective is to i) strengthen the institutional capacity for water resources management at national level ii) promote planning and implementation of resilient water infrastructure²⁰; and iii) improve the recipient’s capacity to respond promptly and effectively to an eligible emergency.

Key Results (From PCN)

18. Expected results include:

- I. Water Resources Information System designed and main information modules operational
- II. Groundwater management plans developed and approved for two aquifers under overexploitation risk
- III. National Water Infrastructure Master Plan adopted by the GoN
- IV. One infrastructure project for water resources management under operation
- V. Time taken to disburse funds requested by Government for an eligible emergency

D. Concept Description

19. The proposed project will have the following components:

Component 1: Strengthening institutional capacity for water resources management at national level (approximate cost US\$12 million). The objectives of this component are to: (i) strengthen water resources information; and (ii) develop the basic tools necessary for effective water resources management. The development of these management and information tools is expected to help the GoN to better mitigate the risks associated with extreme events and enhance climate change

²⁰ Second part of the PDO will be revised once the infrastructure investment under component 2.2 is selected.



adaptation.

Sub-component 1.1: Strengthening water resources information. This sub-component will finance: i) the identification of key water information users and their needs; ii) the design of a scalable National Water Resources Information System (NWRIS) and the implementation of the main information modules to respond to the needs identified in (i); iii) the expansion and improvement of the water resources data collection network at the national level (hydrometeorological, groundwater and water quality); iv) a dissemination campaign for NWRIS generated information/data; and v) training for the use and development of water information products.

Sub-component 1.2: Development of water resources management tools. This subcomponent will finance: i) an assessment of the water financing system, including the evaluation of prevailing water use and wastewater discharge fees; ii) the development of a national strategy for water quality management; iii) the review and upgrading of the existing river basin planning tools and their piloting in two priority river basins; iv) the development of groundwater management plans for two aquifers at risk for overexploitation; v) an assessment of the institutional strengthening needs of the different institutions involved in water resources management; vi) implementation of a training program on water resources management to decision-makers and water professionals; and vii) the design and implementation of an education program, tailored to men and women, to promote a “water culture”.

Component 2: Revamping and promoting resilient water infrastructure (approximate cost US\$34 million). This component aims to develop a portfolio of water infrastructure projects and to support the implementation of prioritized infrastructure projects necessary for resilient water management.

Subcomponent 2.1: Promoting resilient water infrastructure. This subcomponent will finance the development of a National Hydraulic Infrastructure Master Plan that will include: i) the identification of a pipeline of existing water infrastructure projects based on the planning results from Component 1 and in additional planning exercises being developed by the GoN; ii) technical studies to support the prioritization of these projects; and iii) the assessment of financing mechanisms for these projects.

Subcomponent 2.2: Support to the implementation of prioritized projects for water resources management. This subcomponent will finance: i) the design and construction of the infrastructure projects prioritized under Subcomponent 2.1²¹ and; ii) the definition and establishment of an institutional structure for the management of these infrastructure projects. Various options are being considered such as: a) rehabilitation of the Las Canoas dam and irrigation scheme, b) water transfer from the Nicaragua lake to the water-scarce plateau of “the Pueblos” (Jinotepe and surroundings) and other bulk-water infrastructure. Studies are on-going to assess the technical viability as well as the social and environmental implications.

Component 3: Project management, monitoring and evaluation (approximate cost US\$ 4 million)

This component will finance Project oversight, implementation, monitoring and evaluation (M&E), including support to overall reporting responsibilities to be undertaken by the Project Coordination Unit (PCU).

Component 4: Contingency Emergency Response (CER) (US\$0 million)

This component is included in each World Bank operation in Nicaragua and finances expenditures on goods required in the case of emergency recovery. This component aims at improving Nicaragua’s capacity to respond rapidly and effectively to emergencies. The component will only be triggered in the event of an emergency for which a (CER) Operations Manual

²¹ this could include reservoirs, primary bulk water supply distribution systems and/or the rehabilitation of existing infrastructure



has been developed, detailing financial management, procurement, safeguards and any other arrangements to ensure that funds are disbursed in a rapid and efficient manner following an eligible emergency.

Gender considerations

20. To ensure full participation and effective inclusion of females in the Project's activities and associated benefits, social assessments will include gender analyses to examine and address project-relevant gender gaps and constraints. Women will be consulted in gender-disaggregated groups to guarantee their specific needs will be reflected in the design and implementation of the Project.

Citizen engagement

21. Citizen engagement mechanisms will include: (a) traditional consultation and feedback mechanisms, such as focus groups and satisfaction surveys; (b) participatory mechanisms, such as community scorecards, participatory planning, budgeting, monitoring, grievance redress mechanisms; and (c) citizen-led mechanisms, such as community management or user management committees.

Climate Risk Screening

22. A preliminary climate and disaster risk screening has been conducted to consider the most relevant risks associated to the Project. The risk screening report concluded that Nicaragua is moderately exposed to several geophysical hazards and is highly vulnerable to climate shocks, which can cause severe long-term damage to human and physical assets. Moreover, inadequate natural, land and water resources management have contributed to increase flooding and drought risks, and aggravated climate variability over the last decades. To address these risks, the proposed Project will finance the implementation of activities strengthening institutional capacity and the development of tools to improve water resources management. This will contribute to reduce country vulnerability to natural hazards. During Project Preparation and once the sub-projects are defined under Component 2.2, in-depth climate and disaster risk assessments and Greenhouse Gas accounting will be developed.

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SAFEGUARDS

A. Project location and salient physical characteristics relevant to the safeguard analysis (if known)

The project will finance improvements in water resources information, management tools and institutional capacity at the national level. The project will also finance infrastructure projects whose specific locations are yet to be determined.

Between 2015 and 2017, the Government of Nicaragua (GoN) developed a National Water Resources Plan with the objective of addressing the different challenges to improve water resources management across the country. As part of the Component 2 of the National Water Resources Plan Investment Project, the GoN has identified and proposed several infrastructure subprojects that may include multipurpose reservoirs, primary water distribution systems for metropolitan



area of Managua and nearby cities, and the rehabilitation of reservoirs. The proposed subprojects will be prioritized and selected after developing a comprehensive technical, social, environmental and economic analyses during Project preparation. The physical characteristics relevant to the analysis of safeguards will be determined once the subprojects and its locations have been defined.

In the scenario of selecting the bulk-water infrastructure subproject for Managua and surrounding cities, where the Lake Nicaragua is proposed as a source of drinking water supply, this might involve forest and land management, erosion control, among other measures, to compensate the associated environmental impacts and to improve the environmental quality in the Project's influence area.

B. Borrower's Institutional Capacity for Safeguard Policies

ENACAL has some previous experience implementing Bank projects. It implemented the Greater Managua Water and Sanitation Project (P110092), which closed in 2015. The project involved increasing access to water and sanitation services in urban areas and entailed involuntary resettlement. ENACAL has an Environmental Management Unit (*Unidad de Gestión Ambiental - UGA*). However, it has limited experience with the implementation of large hydraulic infrastructure projects.

To improve ENACAL's safeguards management capacity, the Project will evaluate the staff capacities as soon as the works to be carried out are defined and will also provide training and workshops about management of safeguards. If required, the training activities will be implemented immediately to guarantee that these capacities are improved and strengthened before the start of civil works. If necessary, ENACAL will be requested to hire additional staff specialized in environmental and social topics. This mitigation measure will depend on the complexity of the works to be carried out, once the infrastructure subprojects have been defined during Project preparation. Additionally, permanent monitoring will be provided by World Bank specialists in the management of safeguards, particularly at the beginning of the project.

C. Environmental and Social Safeguards Specialists on the Team

- Arelia Jacive Lopez Castaneda, Social Safeguards Specialist
- Rafael Antonio Corral Coronel, Social Safeguards Specialist
- John Renshaw, Social Safeguards Specialist
- Diacono Raul Vera Hernandez, Environmental Safeguards Specialist

D. Policies that might apply

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	As a preventive measure, the project has been classified as category A of EA given the fact that the GoN has proposed the construction of hydraulic infrastructure related to multipurpose dams (for hydropower generation, drinking water supply and irrigation), bulk-water distribution systems and new dams. The borrower will prepare and disclose an Environmental and Social Management Framework before appraisal detailing the principles, rules, guidelines and process to assess the environmental

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and social impacts of subprojects financed under component 2.

Subcomponent 2.2. supports the completion of (ongoing) studies to evaluate the technical feasibility, as well as the social and environmental implications of the projects and the definition and establishment of an institutional structure for their management. The projects to be developed will have different environmental and social implications depending on their size and location. Consequently, there will be subprojects classified as category A, B and C. All projects will be evaluated and classified through the ESMF, which will include a detailed procedure to make the aforementioned classification and that will assign the main requirements to be met for each project, in accordance with applicable national legal provisions and in accordance with the operational policies of the World Bank. In particular, for projects classified category A, it will assign the obligation to carry out environmental and social assessment and the development and application of management plans that correspond.

For projects classified B and C, the ESMF will determine, where appropriate, the legal, environmental and social requirements that may be applied to the subprojects, and the compliance actions, if any, that will be mandatory for financing the project. The team's environmental and social specialists will supervise the proper development and application of this ESMF.

The Bank will review and give approval for proposed category A and B subprojects, including their specific safeguards instruments. Subprojects involving the construction of dams or reservoirs will include a full social and environmental analysis of water use in the basin, including upstream and downstream along with a management plan that will consider potential impacts during construction and a plan for operation of the facilities that will avoid or minimize any potential downstream impacts. Furthermore, all subprojects will be subject to screening for potential community health and safety as well as labor influx issues including the risk of gender-based violence. Construction contracts will include worker codes of conduct as well as specific mitigation measures for any risks identified.



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			<p>Activities under 2.2 have not yet been determined. An Environmental and Social Impact Assessment (ESIA) will be developed for each of the projects not related to TA (Component 1 and Subcomponent 2.1), which have been defined before the appraisal.</p>
	Natural Habitats OP/BP 4.04	Yes	<p>This policy is activated to ensure adequate environmental performance, in case the Borrower defines that some of the works or activities will be carried out in areas with natural habitats with environmental value as protected areas. The ESMF will include appropriate screening criteria to ensure that impacts on natural habitats are appropriately assessed and mitigated. The ESMF will also explicitly prohibit the significant conversion of natural habitats</p>
	Forests OP/BP 4.36	Yes	<p>This policy is triggered given that the management of water resources and the potential dam/irrigation subproject may involve the protection or management of forests in the catchment areas to protect the water resources. The ESMF will indicate the obligation to develop a forest management plan for the areas or zones where the subprojects include forest management</p>
	Pest Management OP 4.09	Yes	<p>This policy is triggered given that the water management strategy would include appropriate management measures to prevent the pollution of rivers, aquifers, and basins, as well as the use of pesticides and chemicals in the agricultural sector. The ESMF will indicate the obligation to develop a pesticides management plan for the areas or zones where the subprojects include use of pesticides</p>
	Physical Cultural Resources OP/BP 4.11	Yes	<p>This policy is triggered in a preventive way given that the project includes civil works. A chance finds procedures will be included in the ESMF.</p>
	Indigenous Peoples OP/BP 4.10	Yes	<p>Component 1 includes strengthening institutional capacity for water resources management at the national level, which comprises the development of water resources management tools including training and education programs that may have implications for indigenous peoples, Garifuna, Afro-descendants and Ladinos. As an estimated 6% of the Nicaraguan population is indigenous, OP4.10 is triggered. Furthermore, Component 2.2 includes investments in infrastructure sub-projects, which may potentially have indigenous peoples present in or with collective attachment to project areas.</p>



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The Borrower will prepare an Indigenous Peoples Framework (IPPF) according to the requirements of OP4.10 Annex C. The IPPF will identify the municipalities or departments where indigenous peoples, Garifuna, afro descendants and ladinos are present, focusing on their livelihoods and particularly on any potential impacts and risks related to potential sub-projects. It will also identify potential opportunities for these populations to benefit from the project. The IPPF will also include a description of how social assessments and Indigenous Peoples Plans (IPPs) will be prepared for subprojects, as relevant. In addition, the IPPF will describe how OP4.10 principles and objectives will be integrated into products and activities described under component 1, which are focused on improving institutional capacity for water resources management at the national level, including through the improvement of water resources information and the development of water resources management tools. All TA activities identified before appraisal will be designed in a manner that integrates the principles and objectives of OP 4.10.

Infrastructure investments under subcomponent 2.2 are not yet determined but will be identified during preparation. Social Assessments and IPPs will be prepared prior to appraisal for such activities identified during preparation that have indigenous peoples present or with collective attachment to the project area.

Involuntary Resettlement OP/BP 4.12

Yes

OP4.12 is triggered as infrastructure investments under component 2.2 may involve land acquisition, restrictions on land use, and involuntary resettlement. A Resettlement Policy Framework (RPF) will be prepared and disclosed prior to appraisal. In addition to the RPF requirements described in OP4.12 Annex A, the RPF will describe how OP 4.12 principles and objectives will be integrated into each TA activity.

Specific infrastructure investments under component 2.2 are not yet known but will be identified during



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preparation. For activities under subcomponent 2.2 whose location and detailed designs are known by appraisal, Resettlement Action Plans (RAPs) will be prepared prior to appraisal.

To mitigate the risk of possible downstream environmental and/or social impacts under component 2.1, specific requirements will be included in all TORs for the financed studies. The scope of work includes: (i) an analysis of the potential downstream effects; (ii) the identification of existing risks, if any; and (iii) the inclusion of proposed mitigation measures in the studies produced, based on Nicaraguan legislation, and in accordance with the principles of the Bank

Safety of Dams OP/BP 4.37

Yes

Subprojects under component 2.2 may involve the construction or rehabilitation of dams. Therefore, OP/BP 4.37 is triggered.

On this policy, the team will engage Bank dam safety specialists for advice on inspections/dam safety assessments by the Borrower once sub-projects involving dam rehabilitation/improvement are identified

Projects on International Waterways OP/BP 7.50

TBD

The application of this policy has not been decided since it depends on the definition of the projects to be carried out and their location.

As soon as the infrastructure investments under Sub-component 2.2 have been selected, the team will seek advice on the triggering and compliance of this policy

Projects in Disputed Areas OP/BP 7.60

No

This policy is not activated. No works or activities will be carried out in disputed areas

E. Safeguard Preparation Plan

Tentative target date for preparing the Appraisal Stage PID/ISDS

Sep 28, 2018

Time frame for launching and completing the safeguard-related studies that may be needed. The specific studies and their timing should be specified in the Appraisal Stage PID/ISDS

Safeguard Policies Triggered should be confirmed in May after PCN. Studies related to safeguards should begin as soon as the subprojects to be developed are outlined. The project's safeguards frameworks as well as specific plans of



infrastructure subprojects known during project preparation will be prepared prior to appraisal.

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APPROVAL

Task Team Leader(s):	Juan David Casanova Anoll, Hector Alexander Serrano
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Approved By

Safeguards Advisor:		
Practice Manager/Manager:		

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Country Director:		
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