



Project Information Document (PID)

Concept Stage | Date Prepared/Updated: 29-Jan-2019 | Report No: PIDC26169

**BASIC INFORMATION****A. Basic Project Data**

Country Honduras	Project ID P169901	Parent Project ID (if any)	Project Name Water Security in the Dry Corridor of Honduras (Phase 1) (P169901)
Region LATIN AMERICA AND CARIBBEAN	Estimated Appraisal Date Aug 19, 2019	Estimated Board Date Dec 19, 2019	Practice Area (Lead) Water
Financing Instrument Investment Project Financing	Borrower(s) Secretaria de Finanzas de Honduras (SEFIN)	Implementing Agency Honduran Strategic Investment Office (INVEST-H)	

Proposed Development Objective(s)

The Project Development Objective (PDO) is to strengthen capacity for water resources management and improve water harvesting in the Dry Corridor of Honduras.

PROJECT FINANCING DATA (US\$, Millions)**SUMMARY**

Total Project Cost	60.00
Total Financing	60.00
of which IBRD/IDA	60.00
Financing Gap	0.00

DETAILS**World Bank Group Financing**

International Development Association (IDA)	60.00
IDA Credit	60.00



Environmental and Social Risk Classification

High

Concept Review Decision

Track II-The review did authorize the preparation to continue

Other Decision (as needed)

B. Introduction and Context

Regional Context

1. The Central America Dry Corridor – stretching from Southern Mexico down to Panama - suffers from severe weather instability due to El Niño-Southern Oscillation (ENSO), and has highly vulnerable to climate shocks. According to the Food and Agriculture Organization (FAO), during recent years, the region has become one of the hottest topics on the socio-economic development agenda in Latin America and the Caribbean. The term Dry Corridor – *Corredor Seco* - is relative new, introduced during the past three decades and symbolizes the region's vulnerability to climate change and the urgency to build climate resilience.

2. The Central America Dry Corridor is known for its changing precipitation patterns and has become one of the most susceptible regions in the world to climate change and variability - Guatemala, El Salvador, Honduras and Nicaragua are considered among the 15 most vulnerable countries in the world to drought and floods (FAO, 2017)¹. During El Niño years, precipitation can drop by 30-40 percent, with long-periods of rising temperature and many more extended rainless periods. Increasing temperatures and drying climate have disastrous consequences on yields of basic grain crops, such as maize, reducing agriculture production and affecting food security. Dry periods are often followed by tropical storms having devastating effects. The threats posed by droughts and floods have increased in recent years. Increasing climate variability coupled with socio-economic stresses in the region have started to displace people.

3. There are over 45 million inhabitants in the region, 40 percent of whom live in rural areas. Many of these people live below the poverty line, which affects more than half of the region's inhabitants, and 20 percent are in situations of extreme poverty. Approximately half of the 1.9 million small producers of basic grain crops in Central America live in the Dry Corridor region. Families in the Dry Corridor have very limited access to infrastructure and services and hardly even have the resources to face the risks they must deal with daily. It has been estimated that nearly 50 percent of the children under-five years old in rural areas of Honduras Dry Corridor suffer from chronic malnutrition.

Country Context

4. **Honduras is considered significantly vulnerable to external shocks and climate and weather events.** The country is exposed to terms of trade shocks and price and production risk for key agricultural exports and it is seen as one of the most affected countries by extreme weather events and has increasingly felt the impacts of climate change, where El Niño and other weather-related events have affected landscapes, and infrastructure (communications, housing, health, etc.). In 1998, Hurricane Mitch generated economic damages estimated at around 81 percent of GDP. In addition, the 2015 drought season affected 1.3 million people and small-scale farmers had an average loss of agricultural production of 80

¹ FAO. 2017. *Chronology of the Dry Corridor: The impetus for resilience in Central America*.



percent. External macroeconomic vulnerability and a history of fiscal instability have frustrated progress to address these challenges. (SCD 2017).

5. High rates of poverty and inequality remain a persistent development challenge in Honduras. Poverty reduction in Honduras over the last decades has been slow compared to regional averages for Central and Latin America. Of Honduras' national population of about 9.1 million people, 70 percent live at or below the national poverty line and about 1 in 6 of the total population lives in extreme poverty (less than US\$1.90 per day). Honduras' rate of economic inequality is among the highest in Latin America, with a Gini Index of 0.50. World Bank data indicate that about 54 percent of income in Honduras is held by the highest-earning 20 percent of the population and only 3 percent of income held by the lowest earning 20 percent. Unemployment in 2017 was estimated at 4.5 percent, with unemployment among youth at 8.2 percent. Rough estimations from indigenous organizations indicate that over 70 percent of indigenous peoples live in poverty and over half are unemployed or under-employed. Approaches to addressing these high poverty and inequality rates have been challenged by significant levels of crime and violence, driving a growing number of people to seek asylum in other countries.

6. The Government of Honduras (GoH) is assigning high priority to addressing these challenges including through a focus on poverty reduction. The "Country Vision for 2038" approved in 2010 provides a framework for many of the country's sectoral and thematic policies and programs. With four pillars, the Country Vision focuses on: (i) fostering peace and reducing violence; (ii) generating employment while enhancing competitiveness and productivity; (iii) reducing inequality and improving social protection; and (iv) enhancing transparency and modernization. The 2017-2030 Water, Forest and Land Master Plan launched in 2017 complements the abovementioned seeking to strengthen local governance for the integrated management of water resources.

7. In addition to facing poverty, Honduras has been significantly impacted by climatic events. According to the Global Climate Risk Index for 2015 (Germanwatch), Honduras was the country most affected by climate change between 1996 and 2015. During this period, Honduras suffered from 61 climatic events, the most infamous of which was the 1998 Hurricane Mitch. In addition to great vulnerability to "exceptional catastrophes," climate change has impacted precipitation patterns and the overall availability of water in urban centers.² In 2010, the GoH launched a National Climate Change Strategy to prepare the country for the adverse impacts of climate change and to mitigate potential future impacts.

Sectoral and Institutional Context

9. Honduras, particularly the Dry Corridor, is considered to have a very low overall capacity to manage and adapt to climate variability and change. Several underlying factors limit the capacity to cope with these weather events, including insufficient water storage capacity, prevailing agricultural practices, limited livelihood options and lack of basic support services. Looking forward, temperatures are expected to increase, and rainfall is projected to decrease in most parts of the country; the frequency and severity of storms and related flooding is also predicted to rise over time. Addressing these threats to food and economic security and agro-ecological and environmental resilience will be critical for stable long-term economic development and poverty reduction, as Honduras' agriculture is still dominated by small scale hillside subsistence farmers dependent on healthy and sustainable natural resources for their livelihoods.

10. Sustainable and efficient water resources management is critical to sustain the main productive sectors in the Dry Corridor and diminish the high rates of rural poverty stagnant over the last 10 years. There are several definitions of the

² The climate patterns identified suggest that by 2020 there will be about a 6 percent decrease in annual rainfall in the west and south of the country and by 2050, a decrease in rainfall by 20 percent across most of the country.



Dry Corridor, but fundamentally in Honduras it refers to an area of approximately 20,000 square kilometers (km²) with a population of 2.5 million people living under the risk of drought during the maize growing season, the basic food of the region. It is comprised of five river basins: Sampile, Choluteca, Nacaome, Lempa and Goascoran, being the first three national and the latter two shared with El Salvador. The total annual water resources are approximately 10,215 million m³/year and the estimated demand is less than 10 percent. However, the intra-annual variability shows that during certain months, particularly from February to April water demands exceed available water resources.

11. Important spatial and temporal imbalances exist at the national level between water availability and current water demand. This is particularly relevant given the country's high vulnerability to extreme hydro-meteorological events. Between 2014 and 2015, El Niño weather event resulted in significant reductions in rainfall patterns, causing sizable losses in primary economic activities and affected the Pacific and Central Regions, mainly in the Dry Corridor, posing significant threats to human water supply and food security.

12. 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 in the lower parts of the Choluteca and Nacaome basins. Significant and worrisome drawdowns in the aquifers together with saline intrusion has been identified. These aquifers represent an important water supply for the productive regions of the Pacific.

13. 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 Honduras. 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 Honduras 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.

14. 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 Law approved in 2008 has not been properly regulated. There is no water policy on the ground and the resultant anarchy means that only a few benefits from access to water resources. The main institutional issues relate to: (i) nonexistence of the National Water Authority; (ii) the existence of several institutions involved in the management of water resources with different technical capacities and roles and without a formal coordination mechanism (iii) a non-existing system for water concession allocation; (iv) lack of financing mechanisms for public and private 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.

16. To address these issues and as a direct response to the repeated droughts, in mid-2014, the GoH put in place an "Alliance for the Dry Corridor"³ with collaboration of the development partners such as World Bank, European Union, USAID, Government of Canada, Switzerland (COSUDE) and Spain (AECID) to address the National Food Security Strategy (ENSAN). This initiative, conceived within the Dry Corridor, aims at improving and coordinating initiatives within the Dry Corridor of Honduras, bearing in mind the sustainable and human development of the area. Moreover, and as a result of

³ The ACS aims to lift 50,000 families from extreme poverty between the years 2014 and 2019, reduce under nutrition by 20 percent in target communities, and lay the foundation for continued rural growth.



the Strategic Program for Climate Resilience (SPCR), the GoH and the World Bank are jointly working on a proposal for a water resources management strategy for the Dry Corridor to be approved in 2019. As a result of the engagement developed through this technical assistance, the GoH requested World Bank support to develop an investment project that will contribute to the implementation of the water security strategy in the Dry Corridor.

Relationship to CPF

18. The proposed Project is in line with GoH's vision and with all the focus areas of the of the FY16-FY20 Honduras Country Partnership Framework (CPF). The World Bank's strategic engagement for reducing poverty and inequality in Honduras is outlined in the FY16-FY20 CPF and structured into the following three pillars: (i) fostering inclusion; (ii) bolstering conditions for growth; and (iii) reducing vulnerabilities to enhance resilience. The proposed Project will contribute to all three of these focus areas by supporting financial inclusion, technical assistance, and access for rural households, improving the enabling conditions for livelihoods, and reducing resilience to climate change and other weather-related threats. The proposed Project also responds to several priorities outlined in the Honduras Systematic Country Diagnostic – SCD (January 2017), including fostering inclusion and promoting resilience. The SCD recognizes that Honduras'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 capacity building at local, basin and national level.

19. The Project's proposed design is aligned with the World Bank Group twin goals of poverty reduction and increasing shared prosperity. The Project will contribute significantly to rural poverty reduction through investments in better managing water resources with an integrated approach for natural resources. The inclusive approach of the Project will be demonstrated through the selection of the targeted river basins of the Pacific coast, which will prioritize important investments as well as ensure participation of historically disadvantaged groups such as subsistence farmers, youth and women.

C. The Overall Series of Project Program

22. The Program Development Objective is to strengthen water security and climate resilience of the Central America Dry Corridor. This first phase of US\$60 million would be processed as a regular self-standing IPF.

23. While this project will be implemented in Honduras territory, it is expected to provide benefits to transboundary basins particularly with El Salvador. In addition, the Program will complement different on-going WB initiatives in the Central American region aimed at improving water resources information system and water governance.

Proposed Development Objective(s)

25. The Project Development Objective (PDO) is *to strengthen capacity for water resources management and improve water harvesting in the Dry Corridor of Honduras.*

This Project is envisioned to be the first of a larger Program supporting a larger investment strategy in the Dry Corridor.

Key Results (From PCN)

- (i) National Water Agency established
- (ii) Water resource information system operational
- (iii) Water balance guiding development of water resources at the basin level



- (iv) Amount of water harvested in the rainy season.
- (v) Number of beneficiaries (disaggregated by gender).

D. Concept Description

28. **Component 1: Strengthening of institutional capacity for water resources governance and management.** 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 GoH to better mitigate the risks associated with extreme events and enhance climate change adaptation.

29. **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 Water Resources Information System (WRIS) 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 in the selected basins (hydrometeorological, groundwater, surface water and water quality); (iv) a water balance for each of the selected basins; (v) dissemination campaign for WRIS generated information/data; and (vi) training for the use and development of water information products.

30. **Sub-component 1.2: Water governance and capacity building.** This subcomponent will support (i) regional level to seek coordination in selected basin committees; (ii) contribute to the dialogue around the implementation of the National Water Agency and its regulation; and (iii) the establishment of Water Basin Boards and the reinforcement of the Mancomunidades at basin and sub-basin level and at watershed level the Municipalities and other local organizations. It will also support training on dam safety and the establishment of norms and regulations for gravity-fed water harvesting (*Cosechas de Agua*) infrastructure. The planning process of strategic infrastructure per basin will also be supported. Technical as well as social and environmental studies will be elaborated for selected strategic infrastructure for targeted basins.

33. **Component 2: Revamping and promoting resilient water infrastructure.** This component aims to implement prioritized infrastructure projects necessary for resilient water management.

34. **Subcomponent 2.1: Support to the implementation of the Water Harvesting initiatives in the Dry Corridor.** This will include the design, construction and transfer of operation and maintenance of selected “water harvesters” (*Cosechadoras de Agua*) in the Dry Corridor area. Irrigation training will also be included in the package and attention will be given to gender and youth in the irrigation associations (*Juntas de Riego*).

35. **Subcomponent 2.2: Support to the implementation of Rural Aqueducts in the Dry Corridor.** Water access will also be increased in these communities with the construction of gravity-fed rural aqueducts. In addition, training of the “*Juntas de Agua*” will be promoted and ensure coordination with the rural water and sanitation information systems. Attention will be given to women participation in the Water Boards (*Juntas de Agua*).

36. **Component 3: Project management, monitoring and evaluation** This component will finance: (i) project coordination and management; (ii) monitoring, results evaluation and impact assessment of project activities; (iii) project fiduciary administration, internal controls and audits; (iv) project environmental and social risk/safeguards management; (v) a citizen’s engagement mechanism, including a grievance redress mechanism; and (vi) project-related studies.



37. Component 4: Contingency Emergency Response (CER)

This Component will provide immediate response to eligible emergencies as defined in the Contingency Emergency Response (CER) Operational Manual prepared and adopted by the GOH.

38. Environmental and Social Assessment. A full assessment of the environmental and social impacts and benefits of project activities will be carried out before appraisal. Potential negative impacts for example on aquatic ecosystems, will be identified through the preparation of an Environmental and Social Management Framework (ESMF). The ESMF will give special consideration to impacts and benefits for vulnerable social groups, and take into account gender implications. Potential adverse impacts related to involuntary resettlement would be addressed through the preparation of a Resettlement Policy Framework (RPF). Likewise, the potential positive and adverse impacts affecting indigenous peoples and communities would be identified and addressed through the preparation of an Indigenous Peoples and Afro-descendants Policy Framework (IPAPF).

39. Gender Strategy. As part of project preparation, the GoH will prepare a gender assessment to identify gaps and constraints, and design a gender strategy with an action plan. The aim of the action plan will be to ensure that the specific needs, concerns, and aspirations of women who take part in the project are addressed, and to ensure their full and effective participation in project benefits. The Project will place special emphasis on the participation of women in the decision-making structures of the water users' groups.

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

41. Climate co-benefits, Greenhouse Gas Emission Analysis and Disaster Risk Screening. 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 Honduras 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.

Legal Operational Policies	Triggered?
Projects on International Waterways OP 7.50	Yes
Projects in Disputed Areas OP 7.60	No



Summary of Screening of Environmental and Social Risks and Impacts

Both environmental and social risks for this project could produce substantial impacts particular around social conflict for water resources. As indicated throughout this document indigenous groups in particular have had negative experiences in the water sector nationally that have caused their communities to be acutely attuned to any projects that manage water resources. The environmental impacts could also be significant and revolve around how these water resources are managed, pollution effects for both upstream and downstream users, as well as biodiversity impacts.

Note To view the Environmental and Social Risks and Impacts, please refer to the Concept Stage ESRS Document.

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