DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

HONDURAS

SUPPORT FOR THE DEVELOPMENT OF SMALL AND MEDIUM-SIZED HYDROELECTRIC PLANTS IN HONDURAS

(HO-T1094)

PLAN OF OPERATIONS

This document was prepared by the project team consisting of José Ramón Gómez (INE/ENE) and Fernando Cerna (ENE/CHO) Project Team Co-Leaders; Carlos Trujillo (INE/ENE); Karol de la Paz Quintero (INE/ENE); Marcelo Valenzuela (ENE/CPN); María Cristina Landázuri (SGO/LEG); Rene Herrera (CID/CHO); and Miguel Orellana (CID/CHO); under the supervision of Leandro Alves (Division Chief, INE/ENE).

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Electronic References	
The basic socioeconomic data, including public debt information, are available on the Internet at the following address:	Country data

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ABBREVIATIONS

IDB	Inter-American Development Bank
ENEE	National Electric Power Company
InfraFund	Infrastructure Fund
MW	Megawatts
PPP	Public-private partnership
SEDP	Secretary of State of the Office of the Presidency
SERNA	Ministry of Natural Resources and the Environment
SMHP	Small and medium-sized hydroelectric plants

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PLAN OF OPERATIONS

Beneficiaries:	Secretary of State of the Office of the Presidency; Ministry of Natural Resources and the Environment (SERNA), and National Electric Power Company (ENEE).
Team Leader/Project Team:	José Ramón Gómez (INE/ENE) and Fernando Cerna (ENE/CHO), Project Team Co-Leaders; Carlos Trujillo (INE/ENE); Karol de la Paz Quintero (INE/ENE); Marcelo Valenzuela (ENE/CCR); María Cristina Landázuri (SGO/LEG); Rene Herrera (CID/CHO); and Miguel Orellana (CID/CHO); under the supervision of Leandro Alves (Division Chief, INE/ENE).
Executing agency:	Secretary of the State of the Office of the Presidency (SEDP).
Financing:	InfraFund US$ 250,000 Local US$ 62,500 Total US$ 312,500
Objectives:	The objective of this technical-cooperation project is to support the development of small and medium-sized hydroelectric power plant (SMHP) projects in Honduras.
Term:	Execution period: 10 months Disbursement period: 12 months
Exceptions to Bank policies:	None.
Social and environmental review:	The program was classified as category "C" and reviewed by the ESR on 19 November 2008. No additional actions are required of the project team.
Procurement of goods and services:	Consultants will be selected and hired, and goods and services procured in accordance with the Bank's procurement policies and as specified in documents GN-2350-7 and GN-2349-7.
Coordination with other agencies:	None required.

I. FRAME OF REFERENCE AND RATIONALE

1.1 At present, Honduras has installed electrical capacity of 1,589 Megawatts (MW) (62% thermo-electric, 33% hydraulic, and 5% biomass). Due to the country's high dependence on thermal power and the spike in world oil prices in the past year, and because contractually oil price hikes are transferred to the end users, the cost of generating electric power for the national interconnection system has increased significantly.

1.2 Today, about 10% of the country's water capacity is used. Only 35% of the 6,282 Gigawatts/hour (GWh) produced in 2007 were from water sources. In 2008, approximately 70% of the electricity was generated by plants using oil derivatives. This situation affects the balance of capital, and is indicative of the need to diversify the energy matrix.

1.3 ENEE estimates show that Honduras has the potential to generate some 3,576 MW of hydroelectricity at plants greater than 30 MW, and approximately 1,414 MW at small and medium-sized hydro plants. Of the latter production, 1,347 MW is generated by 5 MW to 30 MW plants and 67 MW by 0.5 MW to 5 MW plants.

1.4 In its efforts to diversify the sources of electrical power generation, the Government of Honduras is seeking to promote the development and execution of renewable energy projects. With the aim of encouraging the development of projects to generate electricity from renewable energy sources, the National Congress of Honduras has passed several decrees since 1998 granting incentives for such projects. The most recent decree (70-2007) provides that: (i) the ENEE must pay for renewable energy-generated electricity an amount equal to the short-term marginal cost plus a markup equivalent to ten percent (10%) of that amount for the power plant's first 15 years of operation, plus an annual 1.5% base price adjustment; (ii) there will be an exemption from import taxes, tariffs, and duties on project machinery and equipment, as well as sales tax exemption for all project-related equipment, material and services; and (iii) there will be an income tax holiday for the first ten years of commercial operation.

1.5 Despite the enactment of specific legislation to foster the development of small and medium-sized hydro plants (SMHP), the country has a complex system for issuing authorizations, permits, licenses, contracts, and concessions that hinders the development of both hydroelectric and renewable energy plants. Developers are generally concerned by the lengthy process and the time required to comply with all these government formalities through SERNA and the ENEE.

1.6 Article 29 of Decree 218-96 gives SERNA the authority to prepare, coordinate, execute, and evaluate policies for the protection and use of water resources, as well as new resources and renewable energy. Pursuant to this authority, SERNA grants the permits, contracts, and licenses to develop SMHP projects. Specifically, SERNA (i) authorizes feasibility studies for potential hydroelectric sites; (ii) grants water concessions; (iii) issues environmental licenses; and (iv) authorizes operations contracts.

A. The Bank's strategy with the country and the sector

1.7 The Bank's country strategy with Honduras contained in document GN-2475, hinges on helping the Honduran government to boost competitiveness. Activities include (i) supporting the national authorities in their efforts to enhance management efficiency for renewable energy projects by spurring the development of renewable energy initiatives to diversify the energy matrix; and (ii) supporting the development of SMHP in the short term through technical assistance to identify and evaluate the technical, economic, environmental, and social feasibility of these initiatives, and consider the potential for public-private partnerships (PPPs).

B. Technical-cooperation strategy

1.8 The government requested this technical-cooperation operation to support the development of SMHP in order to help diversify the country's energy matrix through the introduction of renewable energy. This operation is eligible for funding from the IDB Infrastructure Fund (InfraFund) given that it will finance preparatory work, including feasibility studies, review of infrastructure project documents, studies relating to technical, economic, financial, credit, environmental, social, institutional, and legal viability, and the potential for PPPs in renewable energy projects in Honduras. In addition, the operation will provide technical assistance to help SERNA identify and eliminate barriers to the development of SMHP.

II. PROGRAM

A. Objectives and description

2.1 The objective of the present operation is to support the development of SMHP projects in Honduras in order to diversify energy sources, especially renewable energy. Specifically, the project seeks to: (i) support the development of two SMHP providing technical assistance to conduct the preinvestment studies described in Component 1; and (ii) build up SERNA's capacity by identifying and optimizing the application processes for the relevant authorizations to develop SMHP projects, and looking into potential PPPs.

B. Activities

1. Component I: Conduct preinvestment studies to develop hydroelectric plants (US$170,000)

2.2 This component will finance technical assistance to carry out the following preinvestment studies:

a. *Gualcarque project.* Feasibility studies including at least: (i) analysis of sites and available data; (ii) analysis of alternatives; (iii) topographic, hydrological, geological, geotechnical, and seismic risk studies; (iv) preliminary socio-environmental analysis (including the potential for generating carbon bonds); (v) preliminary engineering designs; (vi) economic and financial analysis; and (vii) consideration of PPP structures.

b. *Mixcure project.* Analyze available options and propose a development plan. The ENEE will supply existing data, but it will be necessary to update the hydrology information, study the proposed plans, and design the potential project.

The ENEE may consider entering into a PPP to develop these two projects.

2. Component II: Identify and optimize SERNA processes to promote renewable energy projects (US$80,000)

2.3 This component will provide financing to identify and optimize the processes followed by SERNA to authorize the development of renewable energy projects, including approval, licensing, and water concessions for SMHP.

III. COST AND FINANCING

A. Summary table of costs (US$000s)

Component	InfraFund	Local	Total
Component I. Preinvestment studies			
Consulting firm. *Gualcarque* feasibility study and *Mixcure* alternatives	160		160
Component II. Optimization of SERNA processes			
Legal, institutional, and environmental consulting services	80		80
Audit and program evaluation	10		10
Local support (in kind)		62.5	62.5
Total	**250**	**62.5**	**312.5**

B. Description and composition of financing

3.1 The total cost of this operation is US$312,500, of which US$250,000 will be financed with InfraFund resources, and US$62,500 will be contributed in kind by the ENEE and SERNA. The project provides for contracting a consulting firm (Component I) and individual consultants (Component II).

3.2 The nonreimbursable InfraFund contribution will complement the resources required for the feasibility studies and the study of alternatives, respectively, for the above two SMHP projects, and provide support for SERNA to optimize its processing of authorizations to develop SMHP projects, and explore potential PPPs. No other technical-cooperation funds are available with the requisite features and within the time frame required to prepare the present operation. This project is not eligible for other IDB-administered funds.

IV. EXECUTION

A. Executing agency

4.1 The project executing agency will be the Secretary of State of the Office of the Presidency (SEDP). The ENEE and SERNA will be the co-executing agencies for this project.

B. Execution mechanism

4.2 The SEDP will be responsible for day-to-day management of the project through its Technical Support Unit (UNAT) and the Special Project Advisor. The SEDP will be responsible, among other things, for supporting the development of specialized programs and projects, and the periodic evaluation of outcomes for the prioritized areas of reform, such as the energy and hydrocarbons sectors.

4.3 As executing agency, its duties include coordinating program execution, supervising the work of consultants in coordination with the co-executing agencies, and preparing program progress reports. These reports will be submitted to the IDB Country Office in Honduras (COF/CHO) for review and approval.

4.4 As co-executing agencies, the ENEE and SERNA will be responsible for technical supervision of the studies and activities financed by the operation. In addition, they will contribute all necessary logistical support for the consultants, and facilitate access to required information.

4.5 The Energy Division of the IDB's Infrastructure and Environment Department (INE/ENE) will provide support for this project, assisted by the project team and the INE/CHO.

C. Procurement of goods and services

4.6 The SEDP will be responsible for the selection and contracting of consultants in accordance with IDB procurement procedures, and with the Bank's direct support when necessary. Consultants will be selected and hired in accordance with Bank policies (document GN-2350-7).

4.7 The procurement plan, covering a ten-month period, is annexed to this plan of operations (Annex II).

D. Execution and disbursement schedule

4.8 The execution period will be 10 months and the disbursement period 12 months.

V. MONITORING AND EVALUATION

A. Monitoring

5.1 José Ramón Gómez at INE/ENE will have primary responsibility for monitoring this operation during execution. He will be assisted by the IDB Country Office in Honduras (INE/CHO).

B. Monitoring and evaluation

5.2 The executing agency will be responsible for supervising the work performed by consultants, and ensuring such work has been carried out in accordance with the respective terms of reference, complying with the deadlines for submission of reports.

5.3 The SEDP will submit quarterly progress reports on program activities. In addition, when required by the Bank, the SEDP will remit partial reports on the progress of the consulting services.

VI. VIABILITY AND RISKS

A. Benefits and beneficiaries

6.1 The principal beneficiaries of this operation are the ENEE and SERNA. The anticipated benefits include: (i) promoting the development of two SMHP projects and looking into potential PPP arrangements; and (ii) optimizing the SERNA approval process in order to encourage development of similar projects.

B. Risks

6.2 One major challenge to the present operation will be to successfully implement the changes identified in the analysis to optimize the authorization process for renewable energy programs in Honduras. This risk will be mitigated by the SEDP's participation in the program, and a high level of government support for the process.

VII. ENVIRONMENTAL AND SOCIAL REVIEW

7.1 The ESR reviewed and approved the technical-cooperation profile, without further action. Given the nature of the operation no negative environmental or social impacts are anticipated. Moreover, the planned studies include preliminary environmental and social evaluations for the hydroelectric projects. The operation and its outputs must comply with Honduran environmental and natural resource legislation, as well as Bank policies and procedures for the evaluation of social and environmental impacts.

7.2 In view of the activities to be financed under this operation and given the scope of the Bank's Environment and Safeguards Compliance Policy (OP-703), this operation is classified as category "C".

VIII. APPROVAL

Approved: _____ Date: _____

Leandro Alves
Chief, INE/ENE

HYDROELECTRIC PLANTS (SMHP) IN HONDURAS

(HO-T1094)

CERTIFICATION OF FUNDS

I hereby certify that this technical cooperation operation was approved for funding by the Infrastructure Project Preparation Fund – InfraFund (IFN) on 21 November 2008, in accordance with the approval of the project profile. I further certify that funds of up to US$250,000 are available in the InfraFund to finance the activities described and budgeted in this document. The funds reserved pursuant to this certification will be available for a period of nine (9) calendar months from the date of signature hereof. Should the project not be approved by the IDB within that period, the funds will no longer be reserved and the commitment will be considered to have lapsed, and a new certification will have to be signed to renew the reserve of funds. The commitment and disbursement of resources covered by this certification must be made by the IDB exclusively in United States dollars. The latter currency will also be used for payment of remuneration to consultants, with the exception of payments to local consultants working in their own country, whose services will be remunerated in local currency. No Fund resources may be used to cover amounts in excess of the amount certified for implementation of this plan of operations. Commitments assumed under contracts in currencies other than the Fund currency may result in an amount exceeding the amount certified, causing exchange rate differences for which the Fund assumes no risk.

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Marguerite S. Berger **Date**
Chief, Grants and Cofinancing Management
VPC/GCM