

TC Document

I. Basic Information

▪ Country/Region:	Ecuador
▪ TC Name:	Program on Energy Efficiency in the Transport Sector
▪ TC Number:	EC-T1286
▪ Team Leader/Members:	Francisco Arango (INE/CCS) team leader; Sandra López (INE/CCS), Fernando Orduz (TSP/CEC), Marisol Inurritegui (RND/CEC), Patricio Crausaz (FMP/CEC), Gumersindo Velázquez (FMP/CEC), Betina Hennig (LEG/SGO)
▪ TC Taxonomy	Client support
▪ Date of TC Abstract authorization:	October 31 st , 2014
▪ Beneficiary:	Ministry of the Environment, Republic of Ecuador
▪ Executing Agency:	Inter-American Development Bank
▪ Donors providing funding:	SECCI ordinary capital fund (SCI)
▪ IDB Funding Requested:	US\$195,000
▪ Local counterpart funding, if any:	US\$50,000
▪ Disbursement period:	20 months (18 months of execution)
▪ Required start date:	June, 2015
▪ Types of consultants:	Firms and individual consultants
▪ Prepared by Unit:	INE/CCS
▪ Unit of Disbursement Responsibility:	TSP/CEC
▪ TC Included in Country Strategy:	Yes
▪ TC included in CPD:	No
▪ GCI-9 Sector Priority:	Protect the environment, respond to climate change, promote renewable energy and ensure food security

II. Objectives and Justification

- 2.1 The objective of this Technical Cooperation (TC) is to support the Government of Ecuador with the preparation of potential mitigation measures in the transport sector with a view to mobilizing international climate finance resources and reducing greenhouse gas (GHG) emissions. According to Ecuador's second national communication to the United Nations Framework Convention on Climate Change (UNFCCC), in 2006 the transport sector contributed with 8% of the country's overall GHG emissions and with 48% of the energy related GHG emissions.
- 2.2 This TC will contribute to Ecuador's national priorities, including the formulation of a National Strategy for Climate Change as stated in the Ecuadorian National Development Plan ("*Plan Nacional para el Buen Vivir 2013-2017*"). The operation will support Ecuador's strategy for greening the country's patterns of energy supply and consumption ("*Estrategia para el Cambio de la Matriz Energética*"), potentially reducing the consumption of fossil fuels by heavy-duty vehicles, which are one of the main

consumers of imported diesel fuel. Additionally, the operation aligns with the IDB Country Strategy with Ecuador 2012-2017 (GN-2680), which mentions the collaboration in the energy, transportation, and urban sustainability sectors. In terms of climate change, the strategy also identifies energy efficiency in the transport sector as a priority area.

- 2.3 This TC is aligned with the objectives of the IDB's Ninth General Capital Increase (GCI-9), which establishes that the Bank will support actions to achieve sustainable growth in Latin America and the Caribbean, including the promotion of global environment sustainability, addressing climate change, and ensuring that energy requirements for development are met. The GCI-9 further mandates that the Bank improves its capacity to assist the region in its transition to a green economy, including the development of institutional and regulatory frameworks to allow investments in areas such as sustainable transport, renewable energy and energy efficiency. The proposed TC will contribute to the implementation of IDB's Climate Change Strategy Action Plan along its strategies regarding: (i) strengthening the knowledge base available to the Bank and its clients; (ii) expanding lending and technical assistance in key sectors; and (iii) scaling-up investments and leveraging private sector investments. Also, the project is consistent with the indicators of the Bank's lending program as it provides support to small and vulnerable countries.
- 2.4 This operation contributes to the objectives of the Sustainable Energy and Climate Change Initiative IDB Special Program (IDB SECCI Fund), as it relates to the reduction of GHG emissions and the mobilization of financial resources for climate change mitigation. The Ministry of Environment of Ecuador has estimated that the renovation of heavy-duty vehicles could reduce 3.6 MtCO₂e/y. During the period 2008-2014, the Government of Ecuador, through its *Plan Renova*¹, has provided incentives for vehicle renewal worth US\$100 million. A reform to *Plan Renova* has the potential to mobilize new resources for the adoption of low-carbon vehicle technologies, which would reduce the consumption of imported fossil fuels and the emission of GHG.

III. Description of Activities/Components and Budget

- 3.1 **Component 1. Assessment of climate change mitigation actions.** This component will prepare studies for the design of potential actions to mitigate climate change through the adoption of low-carbon vehicle technologies in the transport sector in Ecuador. The expected outputs under this component include:
 - a. A market study for the deployment of low-carbon technologies for heavy-duty vehicles, including a diagnosis of the existing fleet, a characterization of the current technology supply for heavy-duty vehicles, an estimation of future additions to the existing heavy-duty fleet and an identification of suppliers of low-carbon heavy-duty vehicles (including hybrid and electric trucks and buses). The output will also include the elaboration of economic models for the deployment of low-carbon

¹ *Plan Renova* was adopted in September 2007 with the purpose of modernizing the country's fleet. The agreement that created *Plan Renova* is available under: <http://www.ant.gob.ec/index.php/servicios/plan-renova/base-legal/file/23-convenio>

technologies for heavy-duty vehicles, including mass transit and freight transport.

- b. An assessment of *Plan Renova* and a proposal to establish incentives for the adoption of low-carbon technologies for heavy-duty vehicles. The output includes an evaluation of the results produced by *Plan Renova* during the period 2008-2014 and the preparation of a set of recommendations to be included in the operating procedures of *Plan Renova*, with a view to promoting the adoption of low-carbon technologies for heavy-duty vehicles.

3.2 **Component 2. Nationally Appropriate Mitigation Actions (NAMA) on low carbon transport.** This component entails the preparation of a proposal for an internationally-supported NAMA on the adoption of low-carbon technologies for heavy duty vehicles, on the basis of the results from activities under component one. The activities of this component include the definition and assessment the following aspects that would constitute the main elements of the NAMA to be proposed:

- a. an estimation of GHG emissions and GHG emissions reductions that would result from renewing a portion of the country's heavy-duty fleet with low-carbon vehicles by means of providing incentives through a reformed version of *Plan Renova*;
- b. an estimation of the investments by the public and private sectors required for the renovation of a portion of the country's heavy-duty fleet with low-carbon vehicles and the justification of the need for international climate finance to support this effort;
- c. an assessment of financial, technical, regulatory and capacity barriers that prevent the renovation of the heavy-duty fleet, including the availability of low-carbon vehicle technology and maintenance providers, the assessment of potential technical barriers to international trade, the ownership of GHG emissions reductions, etc.;
- d. an estimation of development benefits (co-benefits) from the renovation of the heavy-duty fleet, including an estimation of fuel savings, reduction in fuel subsidies, reduction of criteria pollutants, efficiency gains in freight transport, etc.;
- e. recommendations on measurement, reporting and verification (MRV), including the definition of procedures for data collection and administration, and the incorporation of information in national GHG inventories and periodic reports to UNFCCC;
- f. an assessment of the risks associated to the renovation of the heavy-duty fleet, including regulatory risks and risks arising from the allocation and administration of international climate finance resources;
- g. an analysis that identifies stakeholders from the private and public sectors, including a preliminary assessment of capacities. In particular, the stakeholder analysis will look into the institutional arrangements and capacities to administer international climate finance resources; and,
- h. a strategy that describes the next steps required for the implementation of the proposed NAMA, including the identification of potential partners and sources of international climate finance.

Table 3.1. Indicative Results Matrix

Output	Indicator	Base	Target
Component 1			
Market study and economic models for low-carbon technologies for heavy-duty vehicles	Report	0	1
Assessment of <i>Plan Renova</i> and recommendations for the promotion of low-carbon technologies for heavy-duty vehicles	Report	0	1
Component 2			
Assessment and proposal of a NAMA on low-carbon transport	Report	0	1

Table 3.2. Indicative Budget (US\$)

Component Activity	Description	IDB	Counterpart ^a	Total
Component 1				
Adoption of low-carbon technologies for heavy-duty vehicles	Market study and economic models for the deployment of low-carbon technologies	100,000	15,000	115,000
	Assessment of <i>Plan Renova</i> and elaboration of recommendations	40,000	20,000	60,000
Component 2				
NAMA Proposal	NAMA on low-carbon freight transport	50,000	15,000	65,000
Execution, monitoring and evaluation ^b		5,000	0	5,000
Total		195,000	50,000	245,000

^a In kind: studies on GHG emissions from the transport sector, studies on low-carbon technologies for transport.

^b Include, e.g., independent peer review of project outputs and ancillary costs related to work meetings.

IV. Executing Agency and Execution Structure

- 4.1 The Ministry of the Environment of Ecuador has requested the Bank to be the executing agency for the technical cooperation. The Bank has experience providing technical assistance to Ecuador on the topic of NAMAs, including the elaboration of a concept for a NAMA on urban mobility in Ecuador (RG-T1871) and the identification and ranking of NAMAs in the energy sector (RG-T1831). The Bank is also currently executing a regional TC to support the development of NAMAs in six countries, including Ecuador (RG-T2357).
- 4.2 The execution and technical supervision of the TC will be under the responsibility of the Transport Specialist at the Bank's Country Office in Ecuador (TSP/CEC). These include the preparation of final versions of terms of reference, the administration of procurement processes and the supervision of all service agreements to provide technical assistance. A provision for the independent peer review of project outputs has been included in the budget under execution, monitoring and evaluation. The Climate Change and Sustainability Division of the Bank (INE/CCS) will provide technical input and support, as appropriate.

- 4.3 A working group will be established to organize and supervise the activities under the TC. The working group will be comprised by representatives of the Ministry of Transport and Public Works (MTOP), the Ministry for the Coordination of Strategic Sectors (MICSE), the Ministry of the Environment (MAE) and the IDB. If deemed necessary, other institutions may also be part of the working group. The group will approve terms of reference, support the work of the consultants, review and approve outputs, and facilitate strategic decisions by the relevant institutions. The Climate Change Secretariat at the Ministry of the Environment will coordinate the working group and be responsible for: (i) facilitating the communications within the working group; (ii) requesting and gathering inputs from members of the group; and (iii) convening meetings and working sessions.
- 4.4 The procurement of individual consulting services will be carried out by the IDB in accordance with Human Resources policies (AM-650). The procurement of firm consulting services will be carried out by the IDB in accordance with the Policies for the Selection and Contracting of Consultants Financed by the Inter-American Development Bank (GN-2350-9). The procurement of consulting services other than consultants will be carried out by IDB in accordance with Corporate Procurement Policies (GN-2303-20) while IDB's new policies regarding the matter are not in force.

V. Major Issues

- 5.1 The proposed TC requires the participation of different stakeholders from both public and private sectors. Ensuring a smooth execution will require an active effort by the project team to guarantee an adequate coordination among stakeholders. In order to avoid risks regarding the quality of the work developed by participating consultants, the project team will supervise the products by continuously reviewing, monitoring and evaluating during the preparation and final delivery stages of the requested products.

VI. Exceptions to Bank Policy

- 6.1 This operation does not involve any exceptions to the Bank's policies.

VII. Environmental and Social Strategy

- 7.1 No environmental and/or social impacts are anticipated as the result of the operation's execution. On the contrary, the products from this TC will contribute to reduce GHG emissions and achieve other global and local development benefits. Therefore, the project has been classified as Category "C" according to the Environment and Safeguards Compliance Policy of the Bank (OP-703) (see the [Safeguard Policy Filter](#) and the [Safeguard Screening Form](#)).

Required Annexes:

- Annex I: [Letter of Request](#)
Annex II: [Terms of Reference](#)
Annex III: [Procurement Plan](#)