

#### **PART I: PROJECT IDENTIFIERS**

Project Title:	Third National Communication an	Third National Communication and First Biennial Update Report to the UNFCCC			
Country(ies):	Panama	Panama GEF Project ID:1			
GEF Agency(ies):	UNDP	UNDP GEF Agency Project ID:			
Other Executing Partner(s):	National Environmental	Submission Date:	2		
_	Authorithy		February		
			2015		
GEF Focal Area (s):	Climate Change	Project Duration (Months)	36		
Type of Report:	National Communications (NC)	Expected Report Submission to Convention	January		
	Biennial Update Report (BUR)		2017		

PROJECT FRAMEWORK\* Project Objective: To assist Panama in the preparation of its First Biennial Update Report (BUR) and Third National Communication (TNC) for the implementation of its obligations under the United Nations Framework Convention on Climate Change.

**Project Component** (in \$) **Project Outcomes Project Outputs GEF Project** Confirmed **Financing** Co-financing<sup>2</sup> 30,000 National Circumstances 1. Revised and updated 1.1 Updated information on the 2,000 national circumstances, characteristics of Panama's relevant institutional geography, population, natural agreements for the resources, climate, society and economy that could affect its preparation of national communications and the ability to cope with climate FBUR, and the support change mitigation and adaptation. received for preparing the aforementioned FBUR. 1.2 Description of Panama's national socioeconomic development goals, priorities and circumstances, and the specific concerns and needs deriving from specific negative effects of climate change. 1.3 Description of relevant institutional arrangements for the continuous preparation of national communications and biannual update reports. 1.4 Description of the support received for making preparation of the FBUR possible. 2. The 2005 and 2012 National Greenhouse 2.1 Activity data compiled for 134,545 10,000 NGHGI is prepared and 2005, 2012 and 2013, according Gas Inventory included in the TNC And to the 1996, 2000 and 2003 the 2013 NGHGI in the Revised IPCC Guidelines for

Project ID number will be assigned by GEFSEC and to be entered by Agency in subsequent document submission.

Co-financing for enabling activity is encouraged but not required.

F	BUR	GPG LULUCF.	
		2.2 Building of capacities and institutional mechanisms with the main institutions and sectors (agriculture, LUCF, energy, industrial processes and wastes).	
		2.3 National emission factors for the main source categories reviewed, and a draft of their update.	
		2.4. Spreadsheets, summary tables and uncertainty management prepared for 2005 and 2012 greenhouse gas emissions.	
		2.5 Third National Communication Report published.	
		2.6 Updated table and summary of previous national inventory information.	
		2.7 Institutional arrangements developed for the NGHGIs and biannual reports, including synergies with the National Environmental Information System (SINIA), National Institute of Statistics and Census and any other relevant platform or database in the country.	

Vulnerability Assessment & Adaptation to Climate Change (V&A)	3. Completed vulnerability study, including recommended adaptation measures for identified Vulnerable sectors.	3.1. Update of climate scenarios for Panama, using IPCC recommended climate change models.  3.2. Update of key sectors vulnerable to climate change.  3.3. Improved technical and Institutional capacities for climate change vulnerability studies.  3.4. Vulnerability study in priority sectors and regions, including analysis of climate change impacts in these sectors and regions.  3.5. Analysis of climate change adaptation programs and projects (risk management programs, environmental management systems, technology transfer project, etc.).  3.6. Proposal for implementation of climate change adaptation measures, including a gender perspective.	200,000	18,000
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Climate change Mitigation measures	4. Assessment of sectors, actions and projects that could be included in a national emission reduction plan, to serve as input for structuring international assistance for preparing the national emission reduction strategy until 2030	<ul> <li>4.1 Compilation and analysis of information on national provisions for implementation of NAMAs and CDMprojects and initiatives in the international carbon market (including voluntary markets).</li> <li>4.2 Identification and assessment of low-cost, low-carbon development options in key sectors.</li> <li>4.3 Analysis of GHG - emitting sectors; cost-benefit analysis of measures; assessment of best GHG mitigation options; prioritization of mitigation measures (measures related to FBUR and TNC).</li> <li>4.4 Capacity-building in potential mitigation sectors for the development of NAMAs and other mitigation initiatives.</li> <li>4.5 Compilation, description and analysis of relevant information on mitigation actions or the set of actions being developed in the country.</li> <li>4.6 Compilation and analysis of information provided on participation in international carbon-market mechanisms.</li> </ul>	150,000	5,000
National Monitoring, Reporting and Verification	5. Arrangements, national measurement, reporting and verification are proposed	5.1 Identification and assessment of the different national MRV options and possibilities, according to national capacities and circumstances and taking into account the nature of the different mitigation actions.  5.2 Identification of the requirements for development of national institutional arrangements and the national MRV framework.  5.3 Report describing the requirements and recommendations for development of national institutional mechanisms for national MRV.	50,000	1,500

Description of Constraints and financial Gaps. Financial capacity Needs.	6. Updated assessment of the financial and technological assistance received and capacity-building needs	<ul> <li>6.1 Identification of financial, technological and capacity needs for mitigation actions.</li> <li>6.2 Updated information on the financial resources, transfer of technology, capacity-building and technical support received from the GEF, the parties included in Annex II and other developed country parties; gross capital formation and multilateral institutions for climate change activities.</li> <li>6.3 Proposed financing strategy for climate change actions.</li> </ul>	35,000	2,000
Compilation and submission of TNC and FBUR	7. TNC and FBUR documents finalized and submitted.	7.1 Inclusion of studies done for TNC.  7.2 Compilation, drafting, translation and publication of TNC.  7.3 Submission of TNC to UNFCCC, public presentation and distribution of copies to stakeholders.  7.4. Summary report of 2013 GHG Inventory included in FBUR.  7.5. Synthesis of mitigation measures and their effects.  7.6. Identification of financial, technical and capacity gaps related to mitigation issues.  7.7. Updated information on national MRV systems for adopted NAMAs and for REDD+.  7.8. Description of financial,	150,000	1,500
Monitoring and Evaluation	8. Monitoring and Evaluation	technical and capacity building support received.  7.9 Submission of BUR.  8.1 Monitoring and evaluation in accordance with the requirements, including monitoring, reporting and preparation of financial audits.	25,000	0
		Subtotal	774,545	40,000

Project Management Cost (Including Direct Project Cost up to \$9,000) <sup>3</sup>	77,455	40,000
Total Project Cost	852,000	80,000

<sup>\*</sup> List the \$ by project components. Please attach a detailed project budget table that supports all the project components in this table.

## A. SOURCE OF CO-FINANCING FOR THE PROJECT BY NAME AND BY TYPE

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Amount (\$)
Recipient Government	National Environmental	In-kind	80,000
-	Authority (ANAM)		
(select)		(select)	
Total Co-financing			
			80,000

# B. GEF FINANCING RESOURCES REQUESTED BY AGENCY, COUNTRY AND PROGRAMMING OF FUNDS

C		C		(in \$)			
_GEF Agency	Trust Fund	Country Name/Global	Programming of Funds	GEF Project Financing (a)	<b>Agency</b> <b>Fee</b> a)/ (b) <sup>2</sup>	Total c=a+b	
UNDP	GEF TF	Panama 🖂	Climate Change	852,000	80,940	932,940	
(select)	(select)		(select as applicable)				
Total Gra	Total Grant Resources			852,000	80,940	932,940	

a) Refer to the Fee Policy for GEF Partner Agencies

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This is the cost associated with the unit executing the project on the ground and could be financed out of trust fund or co-financing sources. For EAs within the ceiling, PMC could be up to 10% of the Subtotal GEF Project Financing.

#### PART II: ENABLING ACTIVITY JUSTIFICATION

A. ENABLING ACTIVITY
BACKGROUND AND CONTEXT
(Provide brief information about projects implemented since a country became party to the convention and results achieved):

Panama ratified the United Nations Framework Convention on Climate Change (UNFCCC) by means of Law 10 of April 12, 1995, and the Kyoto Protocol by means of Law 88 of November 30, 1998.

The Panamanian legal environmental framework is dictated by the General Environmental Law (Law 41 of July 1, 1998), which established the National Environmental Authority (ANAM in Spanish), defines the principles and guidelines for national environmental policy, and establishes the institutional mechanisms for environmental management, including: 1) the Inter-institutional Environmental System (SIA, in Spanish), comprised by sectoral public environmental institutions, as the interinstitutional coordination framework for harmonizing strategies, plans, programs and projects; 2) the National Consultative Commission on the Environment, consisting of governmental, civil society and indigenous region institutions, as the consultative body for national and inter-sectoral decision-making; and 3) the provincial, regional and district consultative commissions on the environment, with civil society participation, which are responsible for analyzing environmental issues and submitting recommendations.

As a party state to the United Nations Framework Convention on Climate Change (UNFCCC), Panama is carrying out a wide array of activities to fulfill its commitments. It has created the Climate Change and Desertification Unit (UCCD in Spanish) for this by means of Executive Decree 163 of August 22, 2006. The UCCD is responsible for facilitating enforcement of the Convention in the country, developing the national communications for the UNFCCC Conference of the Parties, and making the necessary arrangements for providing continuity to the process as well as participate in the formulation of policies and strategies to implement actions related to climate change. Within this framework, the country received financial aid from the Global Environment Facility (GEF), through the United Nations Development Programme (UNDP), for institutional strengthening and development of two national communications.

The country's First National Communication was submitted to the Conference of the Parties in 2000, and the Second National Communication was submitted in 2011. The country has also attained other achievements since its ratification of the UNFCCC, including the preparation of a guide for the preparation of CDM projects under the Kyoto Protocol in 2001, and the design of the national CDM project portfolio, preparation of a validation, reporting and monitoring manual, verification certification and presentation in 2001, approval by means of resolution of the procedure for endorsement of climate change mitigation project activities, a study of the forestry sector mitigation potential, and Panama's participation in the regional project "Capacity-building for the Second Stage of Climate Change Adaptation in Central America, Mexico and Cuba", Panama also counts with the Regional Visualization and Monitoring System SERVIR which provides critical information for Mexico, Central America, Dominican Republic and eastern Africa. SERVIR responds to natural disasters and environmental threats. It has a geospatial site which provides access to data and metadata from Mexico, Central America and the Caribbean.

REDD+ initiative for Reduction Emission from Deforestation and Forest Degradation aimed to improve forest management, increasing options for poverty reduction in an equitable and sustainable manner by distributing multiple benefits of forests, as well as concrete measures to reach the desired social and economic development parallel to an improved environmental management. It has reached important advances related to the first phase of the strategy development, as involvement of key stakeholders related to forests as indigenous people, development of first stage of forest inventory and carbon and forest monitoring system, including a new forest cover map 2012 and the information system of safeguards and forest reference levels are undergoing.

Upon entry to membership in the UNFCCC, the country established the National Climate Change Program by means of a legal regulation (Resolution AG-0049-2001), which set the foundations for execution of a climate change program and started actions for establishment of climate change institutions.

The year 2007 was an extremely productive one for the National Environmental Authority (ANAM) in terms of development of environmental policies, with the following being developed:

- 1. National Environmental Monitoring, Control and Oversight Policy, approved by means of Executive Decree 33 of February 26, 2007.
- 2. National Climate Change Policy, approved by means of Executive Decree 35 of February 26, 2007.
- 3. National Cleaner Production Policy, approved by means of Executive Decree 36 of March 1, 2007.
- 4. National Environmental Management Decentralization Policy, approved by means of Executive Decree 82 of April 9, 2007.
- 5. National Environmental Information Policy, approved by means of Executive Decree 83 of April 9, 2007.
- 6. National Water Resource Policy, approved by means of Executive Decree 84 of April 9, 2007.

Of the above instruments, the National Climate Change Policy has a goal of consolidating the national capacity needed for responding to climate change effects in accordance with the provisions of Panama's Constitution and laws, while potentiating the opportunities deriving from finance mechanisms coming out of the United Nations Framework Convention on Climate Change and the Kyoto Protocol.

As a result of the National Climate Change Policy implementation, the UCCD has been consolidated and strengthened, preparing it to take on UNFCCC responsibilities. In addition, the ANAM conducted widespread consultations for developing the National Environmental Strategy: Environmental Management for Sustainable Development 2008-2012 (ENA 2008-2012), which differs notably from the preceding National Environmental Strategy with regard to climate change – climate change playing a major role in the direction of environmental management.

Two actionable axes are defined in the aforementioned strategy (2008-2012) for reducing the effects of climate change in Panama: i) mitigation and ii) adaptation. Proposed mitigation measures include: i) increasing energy generation through clean sources (biomass, biofuels, photovoltaic solar, geothermal, hydro, tidal and wind sources) and ii) increasing energy efficiency and savings. The adaptation measures, for their part, focus on three aspects: i) management of coastal marine areas, ii) agriculture, and iii) infrastructure development. As a related climate change issue, the strategy emphasizes desertification and the need to reverse soil degradation in highly vulnerable areas such as the Ngäbe-Buglé Region, the Veraguas savannah and the "Dry Arc" of the central provinces. Currently, work is progressing on the ENA 2013-2017 through a process of widespread consultation, focusing on low-carbon sustainable development management.

Due to the fact that climate change represents a multiplier factor and magnifier of social, economic and environmental problems by heightening the vulnerability of territories and societies, posing a problem for human and national security, and for the purpose of aligning national climate change policy more to the Convention and the issues emerging from its deliberations and negotiations, widespread consultations have been conducted with all sectors and stakeholders in the country to define the context of modifications to the aforementioned policy and incorporate the new issues in terms of the progress achieved and in accordance with national readiness for confronting climate change.

To this regard, and after the aforementioned consultations, an Updated National Climate

Change Policy is being proposed, with defined principles, objectives and guidelines, which unlike the previous one seeks to establish strategies, guidelines and actions for reducing vulnerability and increasing the country's resilience and adaptive capacity for the transition of the Panamanian economy to a green economy that addresses the risks of climate change scenarios through adaptation, mitigation and risk management measures that assist national efforts for reduction of poverty and inequality.

This new policy proposal is grounded in the principles of mainstreaming of the environment as a proposal for inter-institutional and inter-sectoral articulation and coordination, integration of the climate change concept in planning and investment in the productive sectors and territories, attention to the most vulnerable groups to reduce the poverty and inequality related to climate change impacts, and focusing of the country's efforts to achieving Millennium Development Goals and the government's public policy commitments on resilience and adaptation to climate change.

Moreover, it is based on four (4) essential pillars: adaptation, mitigation, disaster risk management, and education, research, capacity-building and technology transfer.

This proposed modification of the National Climate Change Policy is currently in the process of approval by means of executive decree.

On January 9, 2009, the National Climate Change Committee (CONACCP in Spanish) was created to help ANAM with implementation of and follow-up on the National Climate Change Policy. This committee, presided over by the ANAM, has members from 17 public institutions and is responsible for making sure the necessary inter-institutional coordination systems are implemented for compliance with international climate change agreements of which Panama is a signatory, specifically along two main action axes: adaptation and mitigation. In 2013, by means of Executive Decree 52 of January 29, 2013, the regulation establishing this committee was modified to improve its capacity to fulfill its functions, increasing its number of members to 27. This committee is comprised by the following institutions: National Environmental Authority (ANAM), Ministry of the Economy and Finance (MEF), Ministry of Agricultural Development (MIDA), Ministry of Health (MINSA), Ministry of Education (MEDUC), Ministry of Commerce and Industry (MICI), Ministy of Public Works (MOP), Ministry of Social Development (MIDES), Panamanian Authority for Aquatic Resources (ARAP), Panamanian Institute of Agricultural Research (IDIAP), National Secretariat of Science, Technology and Innovation (SENACYT), National Civil Protection System (SINAPROC), the University of Panama (UP), Technological University of Panama (UTP), Panama Canal Authority (ACP), Secretariat of Energy, and the Electricity Transmission Company (ETESA). The CONACCP is headed by a Board of Directors consisting of three (3) positions: the Presidency, which will be occupied permanently by the representative from the National Environmental Authority (ANAM), and the Vice Presidency and Secretariat, which will be elected every two (2) years from among the permanent members, with re-election being possible.

To this regard, by means of Executive Decree 1101 of December 30, 2010, the Republic of Panama approved the "National Policy for Comprehensive Disaster Risk Management" (PNGIRD in Spanish), which is directly linked to the effects of climate change on our country.

Institutionally, the different bodies base their work strategies primarily on the guidelines of the Climate Change Policy and through their participation in the CONACCP. Some strategic directions, such as those of the Ministry of Agricultural Development, are aimed at considering watersheds as work units and promoting energy efficiency and sustainable development; these actions at the end of the day have a positive influence on the management of climate change effects.

The results of the NGHGIS reveal that Panama is a carbon dioxide (CO2) sink. Total CO2

emissions were estimated at 26,402.21 gigagrams (Gg), while removal reached 28,273.67 Gg. The net balance of CO2 emissions and removal for all sectors is 1,871.46 Gg, the total removed by the LU-LUCF sector, due primarily to the natural regeneration of soils that were used for agricultural activities and later abandoned.

Panama has no obligation, in the present context, to reduce GHG emissions; nevertheless, the National Climate Change Policy seeks to establish mechanisms to promote the incorporation of mitigation measures in order to make economic activities compatible with the sustainable social and economic development clearly established in the Kyoto Protocol and its Doha Amendment.

The National Climate Change Policy is based on the governing principles deriving mainly from the UNFCCC, which are listed below: i. Sustainable development, ii. Common but differentiated responsibilities, iii. Precautionary principle, iv. Principle of coordination and cooperation, v. Principle of equality and solidarity, and vi. Principle of knowledge management.

Panama has made significant headway in institutionalizing climate change issues and integrating climate change into national and sectoral public development policies. It is envisioned that the Third National Communication can help strengthen this integration process and inform the international community about the measures taken by the country to deal with climate change.

In this new national and international framework, and to fulfill the new obligations arising from the Conference of the Parties in Cancún and Durban with respect to the presentation of national communications and biennial update reports, the support of the Global Environment Facility is needed in order to continue with development and consolidation of technical and institutional capacities and with efforts to integrate climate change into national policies, plans and programs.

Panama's first Biennial Update Report (BUR) will provide an update of the last national communication submitted to the UNFCCC and will be based on the relevant components of the Second National Communication.

B. ENABLING ACTIVITY GOALS, OBJECTIVES, AND ACTIVITIES (The proposal should briefly justify and describe the project framework. Identify kev also stakeholders involved in the project including the private sector, civil society organizations, local and indigenous communities, and their respective roles, as applicable. Describe also how the gender dimensions are considered in project design and implementation):

The project is in line with GEF-6 strategic focal area on climate change mitigation, objective CCM3 on fostering enabling conditions to mainstream mitigation concerns into sustainable development strategies. Program 5 of this objective aims to facilitate the integration of the reporting and assessment results into the national planning process and to help countries mainstream mitigation action in support of the proposed 2015 agreement.

In keeping with its commitments as a Party to the UNFCCC, the Republic of Panama has set about starting preparation of its Third National Communication, in accordance with Article 4, paragraph 1, concerning the commitments of the Parties to the Convention, and Article 12, paragraph 1, concerning transmission of information on the implementation of said Convention.

To this regard, the planning process needs to begin for Panama's Third National Communication on Climate Change, which in accordance with the Convention's directives for preparing the Parties' national communications in non-Annex I, Decision 17/CP.8, must report:

a. A national inventory of anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol, to the extent its capacities permit, using comparable methods to be promoted by the Conference of the Parties.

- b. A general description of steps taken or envisaged by the non-Annex I Party to implement the Convention.
- c. Any other information the non-Annex I Party considers relevant to the achievement of the objective of the Convention and suitable for inclusion in its communication, including, if feasible, material relevant for calculation of global emission trends.

The project's long-term objective is to mainstreaming Panama's climate change into national and sectoral sustainable development goals, giving continuity to the process of technical and institutional capacity-building, in part, initiated and sustained by the national communications process.

The project's immediate goal is to assist the country in preparing and submitting its Third National Communication and First Biennial Update Report to the Conference of the Parties to the UNFCCC, hence complying with its obligations under Decision 1/CP.16, paragraph 60 and Decision 2/CP.17, paragraph 41 and its Annex III.

#### The expected outcomes of the project are:

- 1. Review and update of the national circumstances and institutional arrangements pertinent to preparation of the national communications and biennial update reports.
- 2. The Third National Greenhouse Gases Inventory and the report for base years 2005 and 2012.
- Completed vulnerability study including recommended adaptation measures for identified vulnerable sectors.
- 4. Assessment of sectors, actions and projects that could be included in the national emission reduction strategy.
- 5. Development of MRV system proposal.
- 6. Updated assessment of the financial and technological assistance received and capacities building needs.
- 7. FBUR and TNC completed and submitted to the UNFCCC Secretariat.

# The project outcomes will be achieved through a wide array of outputs and activities that include:

- Updated information on Panama's geographical characteristics, population, natural resources, climate, society, and economy that could affect its ability to cope with climate change mitigation and adaptation.
- Updated information on the institutional arrangements pertinent to preparation of the national communications and biennial update reports.
- O Systematic and institutional management of greenhouse gas emission data, and preparation of a national inventory for 2005 and 2012.
- o Review of national emission factors for key source categories (methane from enteric fermentation, nitrous oxide from agricultural soils, and CO<sub>2</sub> in the forestry sector).
- o Support for the creation of the National Greenhouse Gas Inventory System and its articulation within the National Environmental Information System.
- Development of reference mitigation, vulnerability and adaptation scenarios up to the Year 2050 for reduction of greenhouse gas emissions and to identify adaptation measures.

- Compilation and analysis of relevant information on mitigation actions or any set of actions being developed.
- Information in table form on mitigation measures, such as the name, nature of the action, coverage, quantitative objectives, progress indicators, methods and associated assumptions, implementation progress and the results obtained.
- o Compilation of data on participation in international markets.
- o Updated information on key sectors vulnerable to climate change.
- Improved technical and institutional capacities for climate change vulnerability studies.
- Vulnerability studies in sectors and regions including analysis of climate change impacts on these sectors and regions.
- o Analysis of Climate change adaptation programs and projects (risk management program, environmental management systems, technology transfer projects, etc).
- Proposal for implementation of climate change adaptation measures including the gender perspective.
- Updated assessment of financing, technology, capacity-building needs and support received.
- Assessment of the different options and possibilities for the national MRV according to national circumstances and capacities and taking into account the different nature of the mitigation measures.
- o Support for the development of national institutional mechanisms for internal control, reporting and verification.

The process of preparing national communications submitted to the Conference of the Parties to the UNFCCC has helped to institutionally strengthen the National Environmental Authority as a competent institution for implementation of the Convention at the national level. In addition to this and as a result of the financing for the preparation of the First and Second National Communications – and in the context of the creation of the Panamanian National Climate Change Committee – there has been an increase in national knowledge and concerns and knowledge of the different interest groups (government, non-government, private and academic sectors).

Based on the experience of the National Communications, it is understood that the most efficient way to cope with climate change is to foster truly shared management of the issue when dealing with all the aforementioned stakeholders, particularly with respect to the design and implementation of mitigation and adaptation actions, for achieving broader sustainable development objectives. Integration of the different sectors strengthens the technical and institutional capacity of the different stakeholders and institutions and does not limit itself to a reduced group of experts and decision-makers in the government institution responsible for compliance with national obligations to the Convention.

The National Environmental Authority, through its Climate Change and Desertification Unit, plays a leading and coordinating role in developing the actions needed for implementation of the Convention and its formal communication to the international community, acting in coordination with other interest groups for integrating climate change into ongoing national activities in order to obtain results for reporting and communicating through the national communications and biennial update reports.

Notwithstanding, this role requires greater strengthening in order to achieve more efficacious and effective climate change management.

The key stakeholders in the project consist of various institutions and organizations with different roles and participation. The interested parties that participate directly in execution of the project are mainly part of the public sector. The National Environmental Authority, through its Climate Change and Desertification Unit, will act as the project's coordinator and executing partner.

Relevant ministries such as the Ministry of Commerce and Industry and the Ministry of Agricultural Development play a key role in the preparation of the national greenhouse gas inventories, since they are responsible for the respective sectoral emission estimates according to IPCC guidelines, under the guidance and coordination of the Climate Change and Desertification Unit. Other bodies, such as the National Institute of Statistics of the Office of the Comptroller General of the Republic, the Secretariat of Energy, the Ministry of Health and the local (municipal) governments play a key role as providers of information for the greenhouse gas inventories.

In addition, relevant organizations and ministries such as the Ministry of Commerce and Industry, the Ministry of Agricultural Development, the Ministry of Public Works, the Ministry of Health, the Ministry of Economy and Finance, and the Panama Canal Authority play a key role as strategic partners in the development of mitigation measures and scenarios, particularly each sector's specific mitigation plan, and in the development and updating of reference scenarios and identification of NAMAs, including their preparation and inclusion in the national registry and their submission to the UNFCCC registry.

The National Environmental Authority will participate in capacity-building activities for the identification, preparation and execution of greenhouse gas emission mitigation actions in key economic sectors. The relevant organizations and ministries will participate in capacity-building and strengthening of activities for the identification, preparation and execution of greenhouse gas emission mitigation actions in key economic sectors. Other bodies, such as the University of Panama (UP), the Technological University of Panama (UTP), the National Secretariat for Science and Technology (SENAYT), the Panamanian Institute of Agricultural Research (IDIAP) and the National Institute for Professional Education and Training for Human Development (INADEH), among others, will also participate in the training activities, taking into account their role of fostering science, technology and innovation initiatives.

Civil society and the private sector will participate primarily through the National Consultative Commission, which will serve as a consulting body for the National Environmental Authority in national and intersectoral decision-making and will issue recommendations to the National Environmental Council. They will also participate through the provincial, regional and district consultative committees set up by Executive Decree 57 of March 16, 2000, which will analyze relevant issues in the provincial, regional or district context, as the case may be, and formulate comments, recommendations and proposals for the Regional Environmental Administrator. Likewise, national institutions and civil society organizations will also participate in the capacity-building activities. Represented on the different consultative committees (according to their area of action) are the business, worker and academic sectors and representatives from non-governmental organizations, agricultural producers, local governments, professional trade unions and the indigenous regions.

The National Civil Protection System (SINAPROC) also plays a pivotal role as a consultation framework through its Emergency Operations Center, as it includes 31 representatives from different institutions, among which are the Ministry of Agricultural Development, the Ministry of Health, the Ministry of Public Works, the Ministry of Government and Justice, the Ministry of Foreign Relations, the Ministry of Housing, the

Panama Canal Authority and the Office of the Comptroller General of the Republic. Moreover, it is the responsibility of the Ministry of Government and Justice, the Director of Civil Protection, the provincial governors and the national, regional and indigenous region directors, as authorities, to implement the provisions of the National Civil Protection System.

With respect to gender aspects, women will be involved not only as beneficiaries but also in the decision-making process for climate change activities.

An understanding of how the different social roles and economic situations of men and women affect and are affected differently by climate change will make adequate implementation possible of climate change adaptation and mitigation measures. To this respect, and for this particular project, the update of the national circumstances chapter of this biennial report will take into account this gender aspect in order to have a better understanding of how the different roles of men and women, as well as national economic and social circumstances, can affect the country's capacity.

The role of women in climate change mitigation actions has received limited attention, especially because the actions have been perceived more from a technical or scientific approach. However, since climate change is primarily the result of anthropogenic activities and affects all human beings, efficacious mitigation strategies must take into account gender patterns in the use of energy. To this respect the project will include the gender perspective in the identification, description and preparation of relevant mitigation measures.

With respect to the technical team to be contracted for implementing the support activity, gender equality will be taken into account.

Mitigation measures have focused largely on reducing greenhouse gas emissions by the transportation sector (changes in the public transportation vehicle fleet, road reorganization, improvement of public roads and construction of a subway in Panama City), and policies have been adopted to improve the national energy matrix, including promotion of energy efficient practices and energy generation from renewable sources (wind, solar and biomass). The country is also developing a project to create and build national capacities for preparing and implementing a national strategy for reducing emissions from deforestation and forest degradation through sustainable forest management (REDD+).

C. DESCRIBE THE ENABLING ACTIVITY AND INSTITUTIONAL FRAMEWORK FOR PROJECT IMPLEMENTATION (discuss the work intended to be undertaken and the output expected from each activity as outlined in Table A).

The National Environmental Authority will act as the project executor of the project on behalf of the government through the Climate Change and Desertification Unit (UCCD), in its capacity as the UNFCCC National Focal Point.

To ensure development of the activities inherent to preparation of the Third National Communication and the First Biennial Update Report, a national coordinator will be hired from day one of the planning process for the communication and biennial report in order to guarantee the full time availability of a coordinator for the activities. This coordinator will be under the supervision of ANAM and UNDP, through the UCCD, and will be responsible for coordinating and supervising the project's operational, administrative and technical execution; in addition, the coordinator will act as liaison for the Third National Communication and First Biennial Update Report with CONACCP institutions and the other key stakeholders in the preparation of both documents. The coordinator will have an administrative assistant, whose primary duties will be to handle administrative aspects, such as secretarial duties, document filing, help in preparation of meeting agendas for the coordinator, quotations, etc.

In addition, expert services or consultants on particular, specialized issues will be hired.

The government will provide support in kind for the project through the use of office equipment, facilities for conferences and meetings and office space.

UNDP-Panama will act as the GEF Implementing Agency and will help the country during the project's development to put into practice the planned activities; it will control and supervise the project on behalf of the GEF. The UNDP country office will supervise and help with execution of the project in accordance with regular procedures.

The Panamanian National Climate Change Committee (CONACCP) will be the framework for consultation and validation of the results of the Third National Communication and the First Biennial Update Report. This institutional framework will help give sustainability to the process of preparing the national communications and biennial update reports, permitting a multi-sectoral process.

#### Activities for execution of the national circumstances:

The Second National Communication information on national circumstances will be updated taking into account all new studies, projects and research conducted since that communication was prepared.

This outcome includes an update of the country's characterization in terms of geography, demography, natural resources, climate, education, social and cultural aspects, and macroeconomic parameters such as employment, income and services. It will also include characterization of specific sectors such as agriculture, forestry, soils, ecosystems and biodiversity, water resources, fishing, coastal resources, energy, wastes, tourism, transportation and health

In particular, it will analyze how the described national circumstances may affect Panama's capacity to deal with climate change mitigation and adaptation. Special attention will be given to the new information and data on the sectors that contribute the most to greenhouse gas emissions.

The country's national development objectives, priorities and circumstances will also be described, including specific concerns and needs deriving from the adverse effects of climate change.

Part of this outcome will include an update of the information on the institutional arrangements pertinent to preparation of the national communications and biennial update reports. A description of the level of support received for enabling preparation of this biennial update report will also be produced for this component of the project.

#### National greenhouse gas inventories:

By virtue of the First National Communication submitted in 2000, Panama prepared and presented the greenhouse gas inventory of emissions by sources and removals by sinks for 1994. After this, the country prepared the second national greenhouse gas inventory for the 2000 base year, which was included in the Second National Communication submitted in 2011.

In the Third National Communication the biannual time-series will be completed up to 2005 - 2010 and 2013. The 2005 - 2012 National Greenhouse Gas Inventory is expected to be prepared in 2016 and published in December 2016.

In order to ensure national inventories with greater transparency, coherence, comparability, exhaustiveness and accuracy, the 1994 and 2000 inventories were prepared using the method described in the Intergovernmental Panel on Climate Change (IPCC) Guidelines for National Greenhouse Gas Inventories, 1996 revised version; the IPCC Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories; and Good Practice Guidance for Land-use, Land-use Change and Forestry,

published in 2003 (this last was only used during the 2000 inventory).

The 1994 and 2000 inventories were also developed using emission factors and other parameters extracted from the IPCC Guidelines for National Greenhouse Gas Inventories, 1996 revised version, and the Greenhouse Gas Inventory: Reference Manual, IPCC – 1997.

In the adapted analysis, the evolution of emissions over time could be estimated applying updated emission factors. In necessary and justified cases, the emissions could be recalculated for previous inventories with the new updated methodologies and emission factors.

The 1994 and 2000 National Inventories included an estimate of net emissions for the following direct greenhouse gases: carbon dioxide (CO2), methane (CH4), and nitrous oxide (N2O). Also included were estimates of emissions of the following direct greenhouse gases: Nitrogen oxides (NOx), sulfur dioxide (SO2), carbon monoxide (CO) and non-methane volatile organic compounds (NMVOCs).

The national activity sectors considered in these inventories, following the IPCC Guidelines for National Greenhouse Gas Inventories, include: i) energy, ii) industrial processes, iii) agriculture (including livestock), iv) land-use, land-use change and forestry, and v) wastes.

The National Environmental Authority's Climate Change and Desertification Unit is the agency responsible for preparing the country's national greenhouse gas inventories. In fulfillment of its mission, the ANAM has an environmental information system that contributes to information management; at the same time, it has the Inter-institutional Environmental System, instituted by the General Environmental Law, which includes the main public institutions related to the sectors and economic activities included in the NGHGI.

Moreover, since an asymmetry exists at present between the information exchange platforms and databases of the different government institutions in order for them to be integrated into a single platform, a spatial data infrastructure (SDI) is being developed, with a platform under construction, for the purpose of achieving at mid-2014 a communication channel between the Geographic Information Systems and databases of the different institutions.

This platform is being designed with the cooperation of government institutions, among which are those in the Inter-institutional Environmental System.

It is important to mention that this platform will strengthen data and information management for the national greenhouse gas inventories. Its reinforcement is therefore needed, so that an inter-institutional database can be structured that manages data and information to feed into the preparation of these country inventories, and we can link into the SDI platform inter-institutionally. In addition, technological skills need to be developed to enable us not only to exchange information institutionally but also optimize relevant information analysis time in order to develop the national inventories in less time, establishing a regional model that can guide global decisions.

During the First National Inventory submitted in 2000, a wide participation was achieved by the different institutions linked to the sectors and activities included in the NGHGIs, including those that handle statistical information, mainly the National Environmental Authority, the Ministry of Commerce and Industry, the Ministry of Agricultural Development, the National Energy Commission, the Ministry of Health and the Office of the Comptroller General of the Republic. For this inventory, these institutions participated in the estimates of the respective sectoral emissions in accordance with IPCC guidelines and under the guidance and coordination of the National Environmental Authority. In each

institution, links were established for those who were given training in NGHGI methodology.

For the second national inventory consulting services were hired, but there was constant communication and collaboration with the different relevant institutions.

Although coordinated work management and the capacity-building process initiated in the first inventory were limited by the contracting of consulting services for the second inventory, the National Climate Change Committee has become the institutional platform for continuing with the strengthening process for national greenhouse gas inventories and biennial reports.

The national inventory and the First Biennial Update Report, which will be prepared in this project, are under the responsibility and coordination of the National Environmental Authority's Climate Change and Desertification Unit, which serves as the focal point in the UNFCCC. This will be developed in close coordination with the aforementioned ministries and other relevant institutions.

To date, and even for the 1994 and 2000 national inventories, little progress has been made on developing the emission factors, constituting a challenge that must be taken on for improving the quality of the inventories. Nevertheless, since the land-use, land-use change and forestry sector represented around 45% of national emissions in 1994, expressed in terms of equivalent CO2, and became a sector with negative emissions – that is, a carbon remover – in 2000, generating a significant impact on the country's emissions, efforts have been made to improve the quality of emissions estimates for this sector. To that end, preparation has begun of a forest cover and land-use map, using high-resolution images in 2008 and 2012 (PALSAR, ASTER, and RapidEye), and a national inventory to determine biomass and carbon in the forests and other land uses. This effort will enable substantial improvement of the information for emissions estimates in this sector.

The agriculture sector represents 21% of emissions for 2000, but the country's emission factors for this sector have still not been determined. Methane from enteric fermentation and nitrous oxide from agricultural soils with pasture animals needs improvement and can be improved during this project in order to improve the quality of the third national inventory for the agricultural sector.

A similar situation occurs for the energy sector, which represents 31% of emissions for 2000. The emissions estimates for the transportation sector could be improved through a joint energy-use study that could be developed by the Ministry of Commerce and Industry and the Secretariat of Energy, to make characterization of the transportation sector's energy demand possible by vehicle type and feature for the 2012 base year and subsequent years.

#### The main activities that will be carried out for this component are:

- Compilation of data and interaction with data providers (for the 2005, 2012 and 2013 inventories).
- o Renewal and strengthening of institutional mechanisms with other institutions and ministries for relevant sectors (energy; land-use, land-use change and forestry; agriculture; wastes; and industrial processes).
- o Preparation of worksheets and summary tables, estimation and management of uncertainties, preparation of graphs and tables, and analysis of results.
- o Publication of the 2013 inventory report.
- Preparation of summary information tables of the previous inventories, together with the 2013 inventory.

One proposed activity for the Third National Communication is the establishment of a National Greenhouse Gas Inventory System and its inclusion in the Environmental Information System. This project will provide technical support for this process.

#### Vulnerability Assessment & Adaptation to Climate Change (V&A):

In this component the assessment vulnerability and adaptation provides a comprehensive vision of the impacts of climate change and projected climate change impacts in the key sectors vulnerable. It will identify gaps and potential opportunities that will enable the Government to formulate plans and strategies for adaptation in these sectors.

The assessment will cover the information on climate and vulnerability in the agriculture, water resources, health, coastal zone, etc. to identify adaptation programs and projects (risk management programs, environmental management systems, technology transfer project, etc.).

This will aim to engender a high level of support to incorporate climate change issues in these sectors and strategies through stakeholder consultative meetings (Government, private sector, and other relevant stakeholders) to inform and exchange information regarding the impact of climate change.

This V&A study will require modeling to produce climate scenarios that will permit adaptation options. ETESA will have to provide information of climate in different region of the country. ANAM will be involved in sensitization efforts of the wider public, and particularly vulnerable groups will be voiced through involvement of representative NGOs and CBOs, including women, indigenous people, etc.

The overall objective will be to create adaptation options that are feasible and are designed for the long term. The outcomes will become part of the national development priorities and proposals for concrete interventions will be developed and financing sought for implementation of these options

### **Climate Change Mitigation Measures:**

The country has been developing policies, projects and megaprojects that, by their very nature, will contribute to the reduction of emissions, and in some cases even global emissions. For instance, the Panama Canal Expansion Project is a megaproject that will result in significant GHG emissions from the maritime sector. They integrate contributions in the context of mitigation measurement, reflecting the country's proactive and responsible attitude toward reducing greenhouse gases to comply with the objective of the Convention. The National Climate Change Policy (still undergoing approval) incorporates the green economy development approach, the purpose of which is to progress toward a low-carbon economy, in which one of the fundamental pillars is mitigation.

The foregoing poses the need to identify low-cost options for reducing the economy's carbon emissions and to design efficacious interventions. The Panamanian government has defined an energy policy that includes diversification of the energy matrix through expansion of renewable energy, among other measures, and promotion of energy efficiency.

The country has requested bilateral and multilateral assistance in order to provide information and train the different sectors with potential for developing Nationally Appropriate Mitigation Actions (NAMAs), identify the sectors and areas with the greatest potential for developing these mitigation management instruments, and identify the legal and institutional barriers for the development of these initiatives.

One activity to be considered in the project will be the compilation and analysis of data on the activities and group of actions (policies, strategies and projects) that have been, are being, and will be developed in the country and that have contributed, are contributing and will contribute to mitigation, regardless of their nature, objective and design, including initiatives related to international carbon market mechanisms.

### Needs and capacity to receive support for financial consolidation and technology.

A study is proposed of the needs and financial, technological and capacity limitations of the institutions responsible for climate change activities. This will be carried out through the compilation, synthesis and analysis of existing information, interviews, group discussions and visits, et. al.

#### **National Monitoring, Reporting and Verification:**

At the Conference of the Parties held in 2010 in Cancun, Mexico, Decision 1/CP.15 was adopted that states that the measurement, reporting and verification of mitigation actions in developing countries, with international support, will be subject to international measurement and verification in accordance with the guidelines to be developed within the Convention framework. In addition to this, it was decided that mitigation actions supported nationally will be measured, verified and reported in the country according to the general guidelines to be developed within the Convention framework.

In 2011, in Durban, the Conference of the Parties asked the Subsidiary Body for Scientific and Technological Advice, by means of Decision 1/CP.17, to prepare general guidelines for domestic measurement, reporting and verification (MRV) of appropriate mitigation actions supported nationally.

Within this context, the Third National Communication will propose the establishment of a national MRV system for appropriate national mitigation actions, following the guidelines to be developed by the Convention.

In this project an assessment will be made of the different options and possibilities for the national MRV according to the guidelines to be prepared, taking into account national circumstances and capacities and the different nature of the mitigation measures. In addition to this, the technical requirements will be identified for the development of national institutional mechanisms for national MRV, depending on what is proposed in the Third National Communication.

Finally, a report will be prepared describing these requirements for development of national institutional mechanisms for national MRV.

# Compilation, publication and submission of TNC and the first biennial update report:

The Third National Communication will be submitted to the Conference of the Parties of the United Nations Framework Convention on Climate Change according to the requirements and formats established by the UNFCCC Secretariat, the document will be disseminated in national and international workshops, and distribution of copies to stakeholders.

The First Biennial Update Report will be prepared according to the guidelines given in Annex II of December 2, CP.17, and will be submitted to the Conference of the Parties of the United Nations Framework Convention on Climate Change according to the requirements and formats established by the UNFCCC Secretariat. This first report will be submitted jointly with the achievement of the project's expected outcomes.

The objective of the FBUR component is develop the GHG Inventory 2013. Outputs expected from this component will be available information on national circumstances and institutional arrangements for implementation of BUR's; Review of mitigation actions and

	Possible information on development of NAMA (for transport and power generation); Identification of gaps, and related financial, technical and capacity needs related to mitigation issues and description of support needed and received; Information related to support received in preparation of FBUR and TNC. The TNC and the FBUR will be submitted to the UNFCCC in January 2017.
	business to the Critical invalidary 2017.
D. DESCRIBE, IF POSSIBLE, THE EXPECTED COST-EFFECTIVENESS OF THE PROJECT:	This activity will not lead directly to reduce GHG emissions, but will contribute to a better understanding and enhanced capacity for implementing Panama's climate change policy.
E. DESCRIBE THE BUDGETED M&E PLAN:	The project monitoring and evaluation will be carried out according to UNDP programming policies and procedures.
	Project start A Project inception meeting will be held within the first two months of project start with those with assigned roles in the project organization structure, UNDP country office and other relevant stakeholders.
	Quarterly The Project Coordinator shall report progress made in the quarterly reports to be monitored in UNDP ATLAS Platform.
	Bi-annual progress: Status Survey Questionnaires to indicate progress and identify bottlenecks as well as technical support needs will be carried out twice a year.
	Annually Annual Report: The Project Coordinator with the collaboration of the project team will prepare an annual report which will be submitted to the national coordination body and the UNDP offices in the country and at HQ. This report could be jointly reviewed during the fourth quarter of the year by the National Implementing Partner and UNDP, with the purpose of analyzing the progress into the results achievement, its relation with the expected effects, as well as the review of the Annual Work Plan for the next year.
	End of Project During the last three months, the Project Coordinator with the collaboration of the project team will prepare the Project Terminal Report, to be submitted and reviewed by the national coordination institution and UNDP.
	Audit on Project will follow UNDP Financial Regulations and Rules and applicable Audit policies.
F. EXPLAIN THE DEVIATIONS FROM	N/A

and their effects as well as options including associated methodologies and assumptions;

TYPICAL COST RANGES (WHERE

APPLICABLE):

# PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)

**A.** RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT(S) ON BEHALF OF THE GOVERNMENT(S): (Please attach the *Operational Focal Point endorsement letter(s)* with this template).

NAME	POSITION	MINISTRY	DATE (Month, day, year)
Elba Cortez	Director, International Affairs, GEF Operational Focal Point	AUTORIDAD NACIONAL DEL AMBIENTE	JANUARY, 15, 2015

#### **B. CONVENTION PARTICIPATION**

CONVENTION	DATE OF RATIFICATION/	NATIONAL FOCAL POINT	
	ACCESSION (mm/dd/yyyy)		
UNCBD	01/17/1995	Mirei Endara – Min	nister of
		Environment Nation	nal Environmental
		Authortity.	
UNFCCC	05/23/1995	Emilio Sempris Ceba	llos – Deputy
		Director, National En	vironmental
		Authortity.	
UNCCD	04/04/1996	Noel Trejos - Directo	r of Integrated
		Watershed Managem	ent, National
		Environmental Author	ortity.
STOCKHOLM CONVENTION	03/05/2003	Ministry of Healt	
	DATE SIGNED	NATIONAL FOCAL	DATE OF
	(MM/DD/YYYY)	POINT	NOTIFICATION
	, ,		UNDER ARTICLE
			7 TO THE
			MINAMATA
			CONVENTION
			SECRETARIAT
MINAMATA CONVENTION			

## C. GEF AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF policies<sup>4</sup> and procedures and meets the standards of the GEF Project Review Criteria for Climate Change Enabling Activity approval in GEF 6.

Agency Coordinator, Agency name	Signature	Date (Month, day, year)	Project Contact Person	Telephone	E-mail Address
Adriana Dinu, Executive Coordinator UNDP-GEF	Linn	January, 27, 2015	Yamil Bonduki, Programme Manager, UNDP (GLECRDs)		yamil.bonduki@un dp.org

 $<sup>^{\</sup>rm 4}$  GEF policies encompass all managed trust funds, namely: GEFTF, LDCF, and SCCF