Terminal Evaluation Review form, GEF Independent Evaluation Office, APR 2016

1. Project Data

Summary project data			
GEF project ID		4780	
GEF Agency project ID		4897	
GEF Replenishment Phase		GEF-5	
Lead GEF Agency (include all for joint projects)		UNDP	
Project name		Promoting the application of the Nagoya Protocol on Access to Genetic Resources and Benefit Sharing in Panama	
Country/Countries		Panama	
Region		LAC	
Focal area		Biodiversity	
Operational Program or Strategic Priorities/Objectives		BD-4	
Executing agencies involved		ANAM, INDICASAT, Universidad de Panama and STRI	
NGOs/CBOs involvement		No involvement of NGOs/CBOs	
Private sector involvement		Private sector involved as co-financer, potential developer of discovered active compounds and beneficiaries	
CEO Endorsement (FSP) /Approval date (MSP)		December 13, 2011	
Effectiveness date / project start		January 24, 2013	
Expected date of project completion (at start)		December 31, 2015	
Actual date of project completion		December 31, 2015	
Project Financing			
		At Endorsement (US $M)	**At Completion (US $M)**
Project Preparation Grant	GEF funding	0	0
	Co-financing	0	0
GEF Project Grant		1.00	1.0
Co-financing	IA own	0	NA
	Government	0.30	NA
	Other multi- /bi-laterals	2.30	NA
	Private sector	0.81	NA
	NGOs/CSOs		NA
Total GEF funding		1.00	1.0
Total Co-financing		3.42	NA
Total project funding (GEF grant(s) + co-financing)		4.22	NA
Terminal evaluation/review information			
TE completion date		December 2015	
Author of TE		Marietta Fonseca	
TER completion date		February 3, 2017	
TER prepared by		Matteo Borzoni	
TER peer review by (if GEF IEO review)		Molly Watts	

2. Summary of Project Ratings

Criteria	Final PIR	IA Terminal Evaluation	IA Evaluation Office Review	GEF IEO Review
Project Outcomes	Satisfactory	NA	NA	Satisfactory
Sustainability of Outcomes	NA	Likely	NA	Moderately unlikely
M&E Design	NA	NA	NA	Unable to assess
M&E Implementation	NA	NA	NA	Moderately satisfactory
Quality of Implementation	NA	NA	NA	Moderately satisfactory
Quality of Execution	NA	NA	NA	Moderately satisfactory
Quality of the Terminal Evaluation Report	-	-	NA	Unsatisfactory

3. Project Objectives

3.1 Global Environmental Objectives of the project:

The project document does not state a global environmental objective, however it includes a so called country program outcome, which is formulated as follows: “To elevate to the level of State policy the protection of the environment to strengthen economic growth, tourism development and wellbeing in general” (ProDoc., p.25).

Panama's unique geographic position makes it a critical area for global conservation planning. Panama’s forests play an important role as migratory corridors between Central and South America. Because Panama is only 100 km wide, the corridor is particularly vulnerable (ProDoc., p.5).

Panama is unique in Central America since 45% of its land, 33,646 km^2, is still forested. Slightly more than one third of Panama’s land area is protected in the country’s 65 parks and reserves. However, deforestation continues at a rapid rate: 440 km^2 per year. At this rate, Panamanian forests will disappear within approximately 80 years. Several of Panama's ecosystems were recently acknowledged by the World Bank as being of global significance for conservation. Due to Panama’s extraordinary yet threatened biodiversity, it is considered a “threatened biodiversity hotspot” (ProDoc, p. 7).

3.2 Development Objectives of the project:

The Development Objective of the project is: “The discovery of nature-based products for the pharmaceutical and agrochemical industries and benefit sharing to promote the sustainable use of genetic resources in the Protected Areas System of Panama”.

A key problem that this project seeks to address is that royalties are typically perceived as the only financial mechanism whereby developing nations such as Panama can receive benefits from the exploration and exploitation of their genetic resources for drugs and agrochemicals. Unfortunately, the proportion of the explored genetic resources that generate royalties is relatively small. Moreover, spending worldwide on drug discovery research (amounting to tens of billions of dollars per year) is

almost all conducted in developed countries rather than the host countries where the biodiversity occurs naturally. As a result, the benefits that host countries receive from the exploration of their genetic resources are very limited.

The project intends to generate tangible economic benefits to the country, in the form of business, employment and capacity building opportunities, through the discovery and development of new medicines or agrochemicals, thereby providing a rationale for the preservation of the biological resources that contain the genetic material. Through collaborations between Panamanian partners and academic and private sector actors abroad, the project focuses on the biodiscovery process, the enhancement of human and institutional capabilities in the country, and the transfer of equipment and expertise to Panama.

The development objective was to be achieved through the following four outcomes:

1. Discovering active compounds for pharmaceutical and agrochemical uses from terrestrial and marine organisms in protected areas and improvement of the capacities of the National Authority of the Environment (ANAM) for their monitoring.
2. Transfer of technology and practices to facilitate the discovery of active compounds and the sustainable use of biodiversity.
3. Benefits shared with national parks and the Panamanian population.
4. Increased national capacity on access and benefit sharing (ABS).

3.3 Were there any **changes** in the Global Environmental Objectives, Development Objectives, or other activities during implementation?

No

4. GEF IEO assessment of Outcomes and Sustainability

Please refer to the GEF Terminal Evaluation Review Guidelines for detail on the criteria for ratings.

Relevance can receive either a Satisfactory or Unsatisfactory rating. For Effectiveness and Cost efficiency, a six point rating scale is used (Highly Satisfactory to Highly Unsatisfactory), or Unable to Assess. Sustainability ratings are assessed on a four-point scale: Likely=no or negligible risk; Moderately Likely=low risk; Moderately Unlikely=substantial risks; Unlikely=high risk. In assessing a Sustainability rating please note if, and to what degree, sustainability of project outcomes is threatened by financial, sociopolitical, institutional/governance, or environmental factors.

Please justify ratings in the space below each box.

4.1 **Relevance**	Rating: Satisfactory

The TE did not rate relevance. This TER rates the relevance criterion as “Satisfactory”.

The project is well aligned with global and national priorities. More specifically, the project is consistent with the Nagoya Protocol, which stipulates that benefits arising from the utilization of genetic resources, as well as subsequent applications and commercialization, shall be shared in a fair and equitable way with the party providing such resources. Such sharing shall be upon mutually agreed terms. The protocol also stipulates that the parties shall encourage users and providers to direct benefits arising from the utilization of genetic resources towards the conservation of biological diversity and the sustainable use of its components. (ProDoc., p. 10).

Panama has a policy which facilitates access to genetic resources and distribution of the resulting benefits, and is taking initiatives to discover genetic resources through the Panama International Cooperative Biodiversity Group (ICBG). The project is consistent with Objective 5 of the National Biodiversity Policy of 2008, which proposes to develop new alternatives that contribute to promoting research into biodiversity, production systems, bioprospecting, biosecurity and access to genetic resources, thereby contributing to the creation of highly efficient and effective businesses in relation to the conservation and sustainable use of biological resources. In addition, the project is in line with the Convention on Biological Diversity ratified by Panama (ProDoc., p. 10).

The project is also coherent with Strategic Objective 4 of GEF-5 (Build capacities on access to genetic resources and benefit sharing) since it supports capacity building of the government of Panama for meeting its obligations under the convention on Biological Diversity. It also supports capacity building within key stakeholder groups and the scientific communities.

4.2 **Effectiveness**	Rating: Satisfactory

The TE rated the progress towards the achievement of each result, however an overall rating for the effectiveness criterion is not provided. This TER rates the effectiveness criterion as “Satisfactory” since outcomes were overall achieved.

The first expected outcome the project was to contribute to the discovery of 10 active compounds. The 2015 PIR (p.4) reports that there is high probability that eight compounds may be considered active compounds. At the time when the TE took place new tests were conducted with the help of private partners. The pharmaceutical industry expressed interest for one active compound. In addition, the project planned to test 2,500 extracts for cancer and tropical diseases treatment and to conduct bio-chemical bioassays. 16,684 tests were conducted by the Smithsonian Tropical Research Institute (STRI) and by the Institute of Advanced Scientific Investigations and High Technology Services (INDICASAT). Of the total number of tests, 516 were bioassays. Four scientific articles were also published (TE, p. 19). In addition, the project planned to contribute to the development of one guidance document for monitoring bioprospecting processes. Ultimately only proposals for the biodiscovery phase were prepared, while no proposals were developed for the other phases (i.e. formulation, field, analyses and testing, validation and registration, negotiation and marketing) (TE, p. 34). For the first outcome the project intended to develop an adjusted ABS agreement as a result of biodiscovery process including royalties. The TE reports (p. 35) that the project developed an “instrument” containing terms for

developing agreements on compounds in the clinical research phase, but no other information is added on the nature of the developed instrument.

For the second outcome the project envisaged to improve the installed capacities for collection, culture and long-term storage of microbes. Trainings were organized on the use and maintenance of research equipment for INDICASAT. In addition, 15 research projects were conducted by bachelor, master and PhD students. Protocols for bioassays were improved and 16 scientific papers were published (TE, p. 37).

For the third outcome the project planned to mark and map at least two trails within Coiba National Park. Only one trail was rehabilitated. The project also planned to organize an awareness raising campaign on the protection and uses of biodiversity and genetic resources in Coiba. An environmental awareness campaign was organized in 22 schools and this involved the use of brochures, newsletters and articles published in newspapers. Also radio messages were broadcasted. It was also planned that ICBG would have developed a biological inventory. In this regards, more than 5,000 micro fungi were collected and 2,346 plant species in the ICBG project area were identified. In addition, for the third outcome the project also planned to strengthen the capacities of Panamanian scientists on biodiscovery. 31 Panamanian students were trained in biodiscovery techniques, one graduated scientist was trained on laboratory techniques in Brazil and one biologist was trained in the Missouri biological garden (TE, p. 40-43 and PIR 2015, p. 13).

For the fourth outcome the project envisaged to increase awareness among the National Assembly members of the benefits of the ratification of the Nagoya protocol, which was ratified by the Assembly on October 2012. The project provided recommendations for three articles of the law creating the Ministry of the Environment (PIR 2015, p. 14). In addition, the project planned to improve the capacities for negotiations in ABS agreements of ANAM staff. In this regards, a capacity needs assessment was carried out and eight staff members (against a target of three) of the Ministry of Environment of Panama (MIAMBIENTE, the old ANAM) were trained in contract negotiations, risk management, stakeholder analysis, scenario analysis, and other relevant topics (TE, p. 45). The project also planned to develop two handbooks on ABS, one for ANAM and one for genetic resources users. A handbook was prepared for users of genetic resources in Panama focusing on two areas: guides on access for users of genetic resources, and references for authorities. Finally, for the fourth outcome the project also planned to develop a methodology to set fees for permits and access to genetic resources. The 2015 PIR simply reports (p. 18) that this output will be delivered in September 2015, however the TE reports no information in this regard.

For the development objective the project result framework has one single indicator and target, which consist in the discovery of one lead compound for agro-chemical or pharmaceutical use. However no specific information is reported in the TE or in the PIRs on this.

4.3 **Efficiency**	Rating: Moderately satisfactory

The TE does not rate the efficiency criterion. This TER rates efficiency as "Moderately Satisfactory".

At the end of November 2015 spent GEF-funded resources amounted to 85%. Considering that the end of the project was one month later, this percentage is relatively low.

There were important delays during the first year of the project, which were caused by administrative reasons and contract difficulties with STRI and INDICASAT (TE, p. 26). Essentially, almost no activity took place during the first year of the project, thus actual implementation time was two years only (TE, p. 49).

The project budget had very limited resources for the internal management of the activities. This problem was addressed by creating synergies and sharing costs with the MIAMBIENTE and with other institutions and projects such as the Panama Tourism Authority, the Ministry of Environment, the Smithsonian Institute, the Panama Chamber of Tourism (CAMTUR) and with The Nature Conservancy (with GEF funding administered by the Inter-American Development Bank (GEF ID 3889) (PIR 2015, p. 20, TE, p. 50). This improved the efficiency of the project.

4.4 **Sustainability**	Rating: Moderately unlikely

Although the TE did not rate the individual components of the sustainability criterion, the overall sustainability of the project is considered "Likely". This TER rate the Sustainability criterion as "Moderately unlikely" because of concerns in the sustainability of the institutional framework and of ownership of the project by Panama's Ministry of Environment (MiAMBIENTE).

This TER rates socio-political sustainability as "Moderately unlikely". This is because beyond the involvement of the staff of the Unit of Access to Genetic Resources (UNARGEN, which is part of MiAMBIENTE), no institutional and political ownership was built within MiAMBIENTE(p. 63).

This TER rates the sustainability of the institutional framework and governance as "Moderately unlikely" because of a high risk of staff turnover within the MiAMBIENTE. During the project implementation six staff members were removed and the remaining officers had many other functions, thus limiting their effective participation in the project (TE, p.50). This high turnover means gains from trainings organized by the project might not be sustained within MiAMBIENTE.

No relevant information is included in the TE or in the PIR to assess the financial and the environmental sustainability.

5. Processes and factors affecting attainment of project outcomes

5.1 Co-financing. To what extent was the reported co-financing essential to the achievement of GEF objectives? If there was a difference in the level of expected co-financing and actual co-financing, then what were the reasons for it? Did the extent of materialization of co-financing affect project's outcomes and/or sustainability? If so, in what ways and through what causal linkages?

The TE does not report clear data on spent co-financing. Figures on spent co-financing were obtained from one co-financier only, the Research Institute for Scientific and Higher Education Services AIP Technology(INDICASAT). When the TE was conducted INDICASAT contribution to the project amounted to Bls 2,014,752, which is equivalent to $US 2,014,752. The TE does not specify whether this amount was in-kind or in-cash. However, the co-financing provided by INDICASAT is much higher than its planned co-financing ($US 300,000).

Given that no information is provided for the other eight co-financer specified in the project budget, no general considerations on co-financing are possible in this TER.

5.2 Project extensions and/or delays. If there were delays in project implementation and completion, then what were the reasons for it? Did the delay affect the project's outcomes and/or sustainability? If so, in what ways and through what causal linkages?

Contract difficulties with STRI and INDICASAT and administrative problems provoked substantial delays. During the first year no concrete activities took place. More specifically, the project started on 24 January 2013, however the first meeting of the steering committee took place on 26 of November 2013 (TE, p. 26), which is 11 months later. An extension was requested, however the TE and the other accompanying documents do not specify its duration.

5.3 Country ownership. Assess the extent to which country ownership has affected project outcomes and sustainability? Describe the ways in which it affected outcomes and sustainability, highlighting the causal links:

The TE mentions that project had no institutional ownership within MiAMBIENTE (see Section 4.4). The TE also mentions that a higher support from the MiAMBIENTE would have probably enhanced the impact of the project (TE, 63).

6. Assessment of project's Monitoring and Evaluation system

Ratings are assessed on a six point scale: Highly Satisfactory=no shortcomings in this M&E component; Satisfactory=minor shortcomings in this M&E component; Moderately Satisfactory=moderate shortcomings in this M&E component; Moderately Unsatisfactory=significant shortcomings in this M&E component; Unsatisfactory=major shortcomings in this M&E component; Highly Unsatisfactory=there were no project M&E systems.

Please justify ratings in the space below each box.

6.1 **M&E Design at entry**	Rating: Unable to assess

The TE did not rate M&E Design at entry. This TER is unable to assess this criterion. This is because strong criticisms raised by the TE to the M&E Design at entry that are not supported by any explanation.

All indicators of the project results framework are SMART indicators. Following the template for GEF funded proposals, a M&E plan was included in the project document. The M&E plan includes annual project reports, project implementation reviews, quarterly progress reports, a project terminal report, a mid-term evaluation and a final evaluation. The plan also includes a budget.

In addition the TE emphasizes (p.19 and p.29) that the project results framework and the GEF tracking tools are not suitable for this project, however the author does not explain why she came to this conclusion.

6.2 **M&E Implementation**	Rating: Moderately satisfactory

The TE did not rate M&E Implementation. This TER rates M&E implementation as "Moderately satisfactory". This is because the PIRs report data for all indicators of the project results framework. The mid-term evaluation was not conducted (TE, p. 62).

The TE also stresses (p. 29) that the M&E tasks related to the collection of data for the indicators of the project results framework were particularly difficult, though no information is provided on why.

Neither the TE nor the PIRs give indications on whether the M&E system was used as a tool for adaptive management.

7. Assessment of project implementation and execution

Quality of Implementation includes the quality of project design, as well as the quality of supervision and assistance provided by implementing agency(s) to execution agencies throughout project implementation. Quality of Execution covers the effectiveness of the executing agency(s) in performing its roles and responsibilities. In both instances, the focus is upon factors that are largely within the control of the respective implementing and executing agency(s). A six point rating scale is used (Highly Satisfactory to Highly Unsatisfactory), or Unable to Assess.

Please justify ratings in the space below each box.

7.1 **Quality of Project Implementation**	Rating: Moderately satisfactory

The Implementing agency for this project was UNDP. The TE did not rate Quality of Project Implementation. This TER rates this criterion as "Moderately satisfactory". Although no specific weaknesses were identified in the TE on the performance of UNDP, the project was characterized by substantial delays during the first year.

The TE mixes considerations on the quality of project implementation with those on quality of execution. However, it specifies that coordination of the execution organizations with the UNDP country Office (CO) was positive. The program office of UNDP was also represented in the steering committee.

The TE also mentions that overhead costs were shared by various projects, thus improving the efficiency of this project (TE, p. 55).

7.2 **Quality of Project Execution**	Rating: Moderately satisfactory

The executing agencies for this project were ANAM, INDICASAT, Universidad de Panama and STRI. The TE did not rate Quality of Project Execution. This TER rates the Quality of Project Execution as "Moderately Satisfactory" because of the same considerations provided in Section 7.1 In fact, The TE mixes considerations on the quality of project implementation and with those on quality of execution.

As mentioned, the start-up of the project was elapsed for one year. This probably increased the workload during the remaining life of the project. In this regards, the TER specifies that the national coordination team was overwhelmed with too many activities. As a result, some important aspects did not receive enough attention. These include interactions with the Environmental Commission of the National Assembly, broadcasting projects results and activities, and the development of synergies with business chambers (TE. p.55).

8. Assessment of Project Impacts

Note - In instances where information on any impact related topic is not provided in the terminal evaluations, the reviewer should indicate in the relevant sections below that this is indeed the case and identify the information gaps. When providing information on topics related to impact, please cite the page number of the terminal evaluation from where the information is sourced.

8.1 Environmental Change. Describe the changes in environmental stress and environmental status that occurred by the end of the project. Include both quantitative and qualitative changes documented, sources of information for these changes, and how project activities contributed to or hindered these changes. Also include how contextual factors have contributed to or hindered these changes.

The TE does not include any relevant information on environmental changes caused by the project. Given the outcomes achieved it can be concluded that the project has not provoked positive or negative environmental changes.

8.2 Socioeconomic change. Describe any changes in human well-being (income, education, health, community relationships, etc.) that occurred by the end of the project. Include both quantitative and qualitative changes documented, sources of information for these changes, and how project activities contributed to or hindered these changes. Also include how contextual factors have contributed to or hindered these changes.

The TE does not report concrete socio-economic changes. However the TE mentions that the pharmaceutical industry has shown an interest in one active compound discovered by the project. Potential consequences are not explained. The project also rehabilitated a trail in the Coiba National Park. Although no considerations are provided in the TE on the possible effect of this activity, the rehabilitation of the trail in the park might in principle increase the number of tourists.

8.3 Capacity and governance changes. Describe notable changes in capacities and governance that can lead to large-scale action (both mass and legislative) bringing about positive environmental change. "Capacities" include awareness, knowledge, skills, infrastructure, and environmental monitoring systems, among others. "Governance" refers to decision-making processes, structures and systems, including access to and use of information, and thus would include laws, administrative bodies, trust-building and conflict resolution processes, information-sharing systems, etc. Indicate how project activities contributed to/ hindered these changes, as well as how contextual factors have influenced these changes.

a) Capacities

Human capacities were improved by organizing trainings on the use and maintenance of research equipment for INDICASAT. Protocols for bioassays were also improved. 31 Panamanian students were trained in biodiscovery techniques, two graduated scientists were trained abroad. Also, a handbook was prepared for users of genetic resources in Panama.

In addition, eight staff members of MIAMBIENTE were trained in contract negotiations, risk management, stakeholder analysis, scenario analysis, and other relevant topics. However, the high turnover of the MiAMBIENTE staff (see Section 4.4) casts doubt on the development of the institutional capacities promoted by the project.

b) Governance

The project provided recommendations for three articles of the law creating the Ministry of the Environment, which was officially approved.

8.4 Unintended impacts. Describe any impacts not targeted by the project, whether positive or negative, affecting either ecological or social aspects. Indicate the factors that contributed to these unintended impacts occurring.

No unintended impacts were reported in the TE or in the PIRs.

8.5 Adoption of GEF initiatives at scale. Identify any initiatives (e.g. technologies, approaches, financing instruments, implementing bodies, legal frameworks, information systems) that have been mainstreamed, replicated and/or scaled up by government and other stakeholders by project end. Include the extent to which this broader adoption has taken place, e.g. if plans and resources have been established but no actual adoption has taken place, or if market change and large-scale environmental benefits have begun to occur. Indicate how project activities and other contextual factors contributed to these taking place. If broader adoption has not taken place as expected, indicate which factors (both project-related and contextual) have hindered this from happening.

The TE does not mention any adoption at scale of initiatives promoted by the project.

9. Lessons and recommendations

9.1 Briefly describe the key lessons, good practices, or approaches mentioned in the terminal evaluation report that could have application for other GEF projects.

The TE does not include a section for lessons learned. The section named “operational level recommendations” include some lessons, which are here reported.

- It is important that the project budget include financial resources for managing and monitoring activities.
- Small projects like this cannot provoke great changes and indicators and target should realistically reflect potential impacts. When the scope of a project is very wide and resources are limited synergies with other project should be promoted.
- It is important to include a gender perspective in the design of projects in order to contribute to UNDP efforts to empower women and to improve gender equality

9.2 Briefly describe the recommendations given in the terminal evaluation.

Most important recommendations are reported below:

- The project execution time should be extended because many activities still need to be concluded.
- Specialized legal assistance should be hired to support agreements that still need to be developed.
- The experience gained by the project on access to genetic resources and on the Nagoya protocol should be organized and systematized. Main results should be presented in a public event at the presence of private sector representatives.

- In future projects the local population of protected areas should be involved in a pilot project on access to genetic resources.

10. Quality of the Terminal Evaluation Report

A six point rating scale is used for each sub-criteria and overall rating of the terminal evaluation report (Highly Satisfactory to Highly Unsatisfactory)

Criteria	GEF IEO comments	Rating
To what extent does the report contain an assessment of relevant outcomes and impacts of the project and the achievement of the objectives?	An assessment of outcomes has been included drawing on the data included in PIRs. However an analysis of the achievement of the projects development objective is missing. An analysis of impact is also missing.	**MU**
To what extent is the report internally consistent, the evidence presented complete and convincing, and ratings well substantiated?	With the exception of the sustainability criterion the report does not include ratings. References to facts and evidence is minimal. Some criticisms are not substantiated with explanations. For example, the TE stresses that M&E system had not budget when the project document has it. Also the indicators and targets of the results not not considered suitable by the TE for the implementation mechanisms of the project, but a clear justification is not provided	**U**
To what extent does the report properly assess project sustainability and/or project exit strategy?	A sustainability section is included. However it does not include considerations on socio-political, financial and environmental risks. An analysis of the exit strategy is barely touched.	**U**
To what extent are the lessons learned supported by the evidence presented and are they comprehensive?	Lessons earned are linked to the successes and shortcomings reported in the project. However they are obvious and of little learning value.	**U**
Does the report include the actual project costs (total and per activity) and actual co-financing used?	Data on co-financing is incomplete. The report includes graphs on project costs by activity with percentage of budget allocation and implementation by activity However, the total value of spent resources in not reported and it is not clear whether the percentage figures reported in graphs also relate to GEF-funds, co-financing or both .	**U**
Assess the quality of the report's evaluation of project M&E systems:	The TE raises important criticism on the quality of the M&E system at entry without properly explaining them. No considerations are included on the capacity of the project to use the M&E system as an adaptive management tool.	**U**
Overall TE Rating		**U**

TE rating: 0.3 x (3+2) +0.1 x(2+2+2+1) = 2.3 = U

11. Note any additional sources of information used in the preparation of the terminal evaluation report (excluding PIRs, TEs, and PADs).