## **IMPLEMENTATION COMPLETION MEMORANDUM (ICM)**

#### A. BASIC TRUST FUND INFORMATION

TF Name: Capacity-Building for the Implementation of the Cartagena

Protocol on Biosafety in Colombia (P077171)

TF Number: TF052187 (GEF3 MSP - Supervision);

TF020392 (GEF2 PDF Block A - Preparation)

TTL/TF Managing Unit: Willem Janssen/LCSAR

TF Amount: US\$ 1 million

Recipient of TF funds: Government of Colombia (GoC);

Responsibility for the project execution was delegated by the Ministry of the Environment (the GEF focal point in Colombia)

to the Alexander von Humboldt Institute (ÎAvH).

Type of TF: Free-standing / Recipient Executed

Single/Multi Donor: Single-Donor

Donor(s) Name(s): **GEF, IBRD** 

Purpose of TF: Co-financing

TF Approval/Clearance Date: 05/02/2003

TF Activation Date: **08/29/2003** (Effectiveness Date)

TF Closing Date(s): September 30, 2007 (originally December 31, 2006)

ICM Submission to TFO: January 31, 2008

## **Cost and Financing Table:**

Cofinancier	Original	Actual
GEF	-Project: US\$ 975,000	-Project: US\$ 975,000
	-PDF A: US\$ 25,000	<u>-PDF A:</u> US\$ 25,000
	Subtotal GEF: <i>US\$ 1,000,000</i>	Subtotal GEF: <i>US\$</i> 1,000,000
Recipient (GoC)	US\$ 2,787,839	US\$ 2,787,839
Total Project	US\$ 3,787,839	US\$ 3,787,839
Cost (w/ PDF A):		

Rating Summary		
Overall TF Outcome	Satisfactory	
Overall Risk to Development Outcome	Satisfactory	

Bank Performance	Satisfactory
Recipient Performance	Satisfactory

#### B. TRUST FUND DEVELOPMENT OBJECTIVES AND DESIGN

#### 1. Trust Fund Development Objectives

Provide original statement of objectives from the approved/cleared IBTF. If original objectives have been changed, explain the timing and nature of the revisions, their justification and approval authority given

The Project Development Objective (PDO) was to enable Colombia to implement the basic objectives of the Cartagena Protocol, including the assessment, management and monitoring of the potential risks posed by trans-boundary movement of genetically modified organisms (GMOs) to the conservation and sustainable use of biodiversity, including human health risks. The major objectives for GEF support were to improve capacity across ministries and among key stakeholders to analyze, inform, and make decisions to reduce potential risks related to GMOs, increase benefits to society, and protect biodiversity.

Immediate objectives included strengthening the legal and regulatory frameworks, and enhancing institutional capacity and effective communication strategies in order to build sufficient capacity to assess and manage risks associated with the trans-boundary movement of GMOs.

No changes were made to the PDO and specific objectives of the project during the implementation period.

### 2. Original (and Revised) Trust Fund Activities/Components

Provide original activities/components to be financed by the Trust Fund. If original activities/components have been changed, identify them, and explain the nature of the revisions, their justification and approving authority.

**Component 1:** Strengthening legislative framework and operational mechanisms for Biosafety management in Colombia

Key activities include: a) the revision and adaptation of legal instruments to regulate and harmonize public policies related to GMOs in correspondence with policy implications of the Cartagena Protocol; b) the establishment of a National Biosafety Council (NBC) comprised of three Technical Committees with expertise in environment, health, and agriculture; c) the establishment of proper mechanisms to coordinate these committees; and d) the development of a publication on "Policies and Procedures Manual" with respect to the Cartagena Protocol.

### **Component 2:** *Institutional capacity-building in Biosafety*

Component 2 includes: a) training activities for experts from ministries, scientific institutes, policy makers as well as representatives from consumer and producer groups; b) scientist exchange visits to Argentina, Cuba, and Mexico to train selected technical personnel of ministries and institutes in risk assessment, risk management, and research on GMOs; and c) the development, publishing, and dissemination of manuals and guides related to the courses and workshops.

**Component 3:** Establishing the biosafety database system and Biosafety Clearinghouse *Mechanism (BCH)* 

Component 3 focuses on: a) the creation and design of the Colombian Biosafety Clearing House Mechanism (www.bch.org.co); b) related activities such as procuring equipment, finding a

location for the central portal, as well as designing and updating the website with appropriate data files; as well as c) promotion of website to the Colombian scientific community and public.

## Component 4: Centers of excellence, research networks, risk assessment and monitoring

Component 4 includes a) the establishment of a central laboratory for the characterization and detection of the molecular biology of GMOs; b) networking with other national research centers of excellence to cooperate in specific research areas, and c) the development of two pilot research projects (potato and rice) on gene flow and its potential impact on Colombia's local biodiversity.

#### **Component 5:** Project Coordinating Unit

Component 5 consists of the technical and administrative coordination as well as the operational planning of the project. All related responsibilities were designed to be carried out by the Project Coordinating Unit (PCU), located in the Institute Alexander von Humboldt (IAvH).

No major changes to the original project design were made during implementation.

#### 3. Outcome Indicators

Provide original performance benchmarks to be measured in the assessment of outcome If none were established, explain why not.

At the time of preparation of this project, GEF medium-sized projects were expected to prepare a Project Brief only. The Project Brief contained specific success indicators outlined in its Logical Framework, and it was agreed that monitoring and evaluation would be based on these indicators. A table of the resulting key output and outcome indicators and achieved results is displayed in Annex 2. The project's achievements are discussed in greater detail under point C.2.

### 4. Other Significant Changes in Trust Fund Design

Describe and explain the rationale for any changes made in design, scope and scale, implementation arrangements and schedule and funding allocation

Two extension requests and one reallocation of the budget by categories were requested by the Recipient. Neither affected the Project Development Objective.

#### C. OUTCOME

## 1. Relevance of TF Objectives, Design and Implementation

Discuss how the Trust Fund objectives, design and implementation are proved relevant to current global/regional/country priorities and the Bank's sector strategy

The Government of Colombia (GOC) has been engaged in the formulation and implementation of biosafety systems since 1991 and was one of the leading countries to formulate the Cartagena Protocol. The development and application of biotechnology products has been identified as a fundamental element for the Colombia's development, as reflected in the National Development Plan (NDP) 2002-2006. The NDP 2002-2006 emphasizes the importance of institutional capacity-building in biotechnology and biosafety as well as related research and information exchange in

order to implement the Cartagena Protocol and to find a balance between environmental, social, and economic objectives.

At project preparation, the project was consistent with the 1997-2007 Country Assistance Strategy (CAS) of the World Bank Group for Colombia, which identified the protection and conservation of the environment together with macroeconomic stability and the peace process, as essential elements to ensure sustainable development. In particular, it recommended that special attention should be paid to: (1) incorporating environmental considerations and sustainable development incentives into key production sectors and the provision of public service; (2) enhancing capacity of environmental management authorities and seeking opportunities for partnership with other government agencies and the private sector, NGOs and academia; and (3) promoting sector policies and investments to enhance poverty reduction in rural areas.

The 2002-2006 CAS (extended to 2007) also emphasizes the role of *environmental and natural resource management* to ensure environmental sustainability and to conserve biodiversity. It cites the peace agenda as the mandate for forging ahead with Government's reform program including the environmental and social sectors, with focused support for rural development and natural resources management. The government's agricultural strategy rests on preparing the sector to take on the challenges of regional/global trade agreements, strengthening the science, technology and innovation components of agricultural production, and responding to global demand while guaranteeing the conservation and protection of biodiversity and ecosystems.

### 2. Achievement of TF Development Objective

Discuss and rate the extent to which the Trust Fund development objectives have been met, with linkage to outcome indicators. This includes an assessment as to whether the actual output/deliverables were successfully completed, compared to the expected output, for each activity/component of the Trust Fund. For activities where the output is a report or a dissemination event such as a workshop, conference, training, or study tour, discuss and rate the Quality, Presentation and Dissemination. Applicable reports and/or documents are to be attached to the ICM

Overall, the project met or exceeded its development objectives in creating a functional intersectoral biosafety working group among nine ministries and institutions. Despite delays, the final results of the project are satisfactory as some components not only achieved their targeted output and outcome indicators but even exceeded some of them, as described below. For a quick overview of results, please consult the table in Annex 2.

**Component 1:** Strengthening the legislative framework and operational mechanisms for Biosafety management in Colombia

Component 1 was completed **satisfactory**. The main achievements of this component's activities are: a) the awareness-building within the engaged institutions on biosafety issues and the establishment of an inter-ministerial biosafety working group; b) the revision of Colombia's legal framework regarding the use of GMOs; c) the "Policies and Procedures' Manual on Biosafety and GMOs"; d) the development of new regulations; and e) three national dissemination workshops. In sum, Component 1 initiated and deepened inter-institutional communications on GMOs and biosafety issues, strengthened institutional capacity and disseminated the achieved outcomes to the scientific community and general public. Yet, it did not fully achieve its performance targets regarding the development of new legal tools. In retrospect, these targets were too ambitious as the process of formalizing the inter-sectoral biosafety working group took more time and effort than expected, and thus fell short of finding unanimous agreement on how to handle GMOs and define appropriate legal tools.

#### **Component 2:** *Institutional capacity-building in Biosafety*

Component 2 exceeded expected outcomes and hence is rated **highly satisfactory**. The main achievements of this component are: a) the strengthened technical and scientific institutional capacity through various learning activities (Annex 3), particularly the creation of the formal Graduate Program in Biosafety of GMOs; b) the publication of technically informative handbooks and webpages (Annex 6); c) the dissemination of information about the project activities at various international events (Annex 4).

**Component 3:** Establishing the biosafety database system and biosafety clearing house mechanism (BCH).

Component 3 meets all targets and was completed **satisfactory**. The main products are: a) the full establishment and functioning of the Biosafety Clearing House - Colombia (BCH)—a mechanism set up by the Cartagena Protocol to facilitate the exchange of information on Genetically Modified Organisms (GMOs), it provides information on the CP and biosafety in general as well as specific facts on regulations and activities in Colombia (in the form of general information material, specific studies, and scientific data); b) The broad dissemination and recognition of the existence and use of the BCH Colombia through a workshop on the use of the BCH; c) the publication and distribution of a user's manual and brochure for BCH to ensure the appropriate and sustainable use of this tool. The success of the dissemination activities and information materials is demonstrated by the increase in the average number of visitors to the BCH. In August 2007, BCH had an average of 1705 visitors per day, compared to 299 visitors per day in January 2007 (Annex 5).

### **Component 4:** Centers of excellence, research networks, risk assessment and monitoring.

Component 4 achieved all targets and was completed **satisfactory**. The main outputs achieved include: a) the construction, establishment and equipment of the Inter-institutional Laboratory for the Detection and Monitoring of GMOs. This laboratory provides Colombia with the necessary infrastructure and basic technical capacity to assess and manage risks associated with the transboundary movement of GMOs. To ensure sustainability of the central laboratory, the involved institutions—ICA, INVIMA and IAvH—assigned funds for 2007 and 2008 and are planning to reserve funds in the future specifically for this purpose; b) the establishment of a network of research centers on biosafety in Colombia (including ICA, CORPOICA, IAvH, CIAT); c) the execution of three inter-institutional research projects on gene flow and impact evaluation (rice, corn, and potato) as well as an additional project on information systems and data bases of wild species; d) a summary report on the results obtained by the four projects; e) a manual on the procedures of the laboratory.

#### **Component 5:** *Project Coordinating Unit (PCU)*

Component 5 was completed **satisfactory**. Throughout the project process, the PCU in the Institute Alexander von Humboldt performed in a satisfactory and timely manner, including activities related to administrative procedures, disbursement, report writing, and formulation of annual work plans. In addition, the PCU organized and successfully conducted several additional activities that have helped the project to achieve more in-depth results and international recognition.

#### 3. Efficiency

Describe the degree to which the Trust Fund activities have been efficiently implemented, in terms of their associated costs, implementation times and economic and financial returns.

Despite a slow start-up, all key output and outcome indicators have been successfully achieved. Several exceeded their initial target, demonstrating high efficiency in implementation. The nature of the project, with predominantly non-quantitative results, does not allow for a pure economic and financial returns analysis; however, the outputs achieved display the wide-spread impact this medium-sized project had for institutional strengthening, capacity-building, and expanded dialogue on biosafety in Colombia. The project has managed to exceed several of its targets, produced additional deliverables and generated direct and indirect benefits. This will be elaborated in the following section.

#### 4. Development Impacts, including those that are Unintended/Unrelated to TF Objectives

Discuss all other outcomes and impacts achieved under the Trust Fund (including unintended, positive and negative). Where relevant, discuss how the Trust Fund has contributed to the development/strengthening of relevant institutions, mobilization of other resources, knowledge exchange, recipient policy/program implementation, replicable best practices, introduction of new products, New Forms of Cooperation with Other Development Institutions/NGOs, etc., which would not have been achieved in the absence of the Trust Fund.

In addition to the achievements described in Section C.2, the project generated various unintended positive side effects:

- The project enjoyed international recognition as demonstrated through conferences and workshops, regional internships, and contact with experts and international scientific and agricultural centers around the globe).
- The technical and operational knowledge generated was helpful in providing information for and promoting cooperation between the GEF-WB Multi-Country FSP and MSP regional projects on Capacity Building for Compliance and the Cartagena Protocol on Biosafety under preparation.
- The project ensured medium-term (financial) sustainability for the central laboratory as well as the BCH.
- The project strengthened dialogue and efficient interaction between involved institutions, building the foundation for future collaboration and joint formulation of regulatory proposals on GMOs.
- The Alexander von Humboldt Institute and the Project Coordinating Unit both benefited from (content and administrative) knowledge gains and increased efficiency in their operations.

#### 5. Overall TF Outcome

Justification for overall outcome rating, taking into account the Trust Fund's relevance, achievement of each TF development objectives, efficiency and development impact. (Rating Scale would be consistent with the six point scale used in ISR/ICR: Highly Satisfactory (HS), Satisfactory (S), Moderately Satisfactory (MS), Moderately Unsatisfactory (MU), Unsatisfactory (U) and Highly Unsatisfactory (HU))

There are five major outcomes of the project:

1. Output: Nearly 500 people benefited directly from the project's capacity-building activities including the Biosafety Graduate Program. Outcome: This training helped to strengthen Colombia's human resource capacity to engage in better informed biosafety decision-making.

- 2. Output: Nine inter-sectoral working groups on biosafety were created and met regularly to discuss Colombia's status quo on biosafety regulation and its compliance with the CP. Outcome: Meetings created awareness of the issue within the respective institutions.

  3. Output: The project produced six widely disseminated publications, which are listed in Annex
- 6 and available online. Outcome: The project enjoyed a high level of international recognition.
- 4. The newly established Central Laboratory for the Detection and Monitoring of GMOs contributes to Colombia's specialized infrastructure for biosafety research. Its sustainability is guaranteed by the continuous (financial) support from the three institutions involved.
- 5. The successful implementation of the Biosafety Clearing House-Colombia represents another important medium-and long-term impact of the project. It exceeds its initially planned function as a source of information by providing a platform for dissemination and communication to all layers of society (nationally and internationally).

Given these results, the overall achievement of the project objective and the respective trust fund objectives is satisfactory. Achievement of actual outputs and outcomes from each of the components had been rated as satisfactory in the last GRM Report (July 26, 2007). This rating is underlined by the results from a participatory user survey, which was conducted prior to project closure.

### D. Risk to Development Outcome

1. Follow-On Results and/or Investment Activities
Identify and provide a description of the role played by this TF that led to those follow-up activities or investments checked below. (Check all that are applicable):
Activity/Investment: Recipient/Other Investment;X_ Grant Project/Program;X_ Bank Project; IFC Financial Project/Activity, Other (explain)
The lessons learned from the project at hand and the capacity built during the past four years in Colombia have been incorporated into two additional multi-country projects: Regional FSP — Capacity-Building for Compliance with the Cartagena Protocol on Biosafety, and the accompanying Regional MSP — Communication and Public Awareness Capacity-Building for Compliance with the Cartagena Protocol on Biosafety. As one of the involved countries, Colombia will be a main source of information and an important player to build capacity on biosafety within the region.
2. Replicability

As a WB-financed pioneer project in the area of Biosafety in Latin America, the lessons learned on methodology as well as some of the outputs created (e.g. publications) in the project at hand will be of relevance to future projects, and have already been incorporated into the the abovementioned two multi-country biosafety projects. The project will contribute to knowledge

Describe and rate the extent to which the Trust Fund has generated useful lessons and

methodology that are replicable in other sectors and/or regions.

exchange (avoiding overlapping efforts) and to overcoming the knowledge asymmetry on biosafety and use of GMOs across Latin America and other regions (e.g. Africa).

### 3. Overall Risk to Development Outcome

Rate how likely, and for how long, the outcomes will be sustained after completion of Trust Fund activities, and the likelihood that some changes may occur that are detrimental to the achievement of the TF development objectives. These may include factors such as technical, financial, economic, social, political, environmental, government ownership/commitment, other stakeholder ownership, institutional support, governance and natural disasters exposure. (Rating Scale would be consistent with the four point scale used in ISR/ICR: Negligible to Low (L), Moderate (M), Significant (S) and High (H))

To ensure sustainability and national commitment of the project results at hand, the project activities were designed to complement a longer-term national effort to strengthen Colombia's biosafety framework, which is underlined by the high counterpart commitment. Furthermore, Colombia's engagement in the additional GEF-WB multi-country biosafety projects demonstrates its continued political interest to strengthen its capacity to comply with the CP and build on the results achieved to adequately manage and assess the use of GMOs.

For the moment, with the nomination of Colombia's Biosafety Focal Point and the three Competent Authorities as well as the nine biosafety working groups, a permanent inter-sectoral space for discussion in Colombia's administration has been established to ensure that the discussion and regulatory adaptation continues after project termination. Given the numerous outputs achieved with respect to institutional capacity-building (training courses, Biosafety Graduate Program, research studies) it is expected that the knowledge generated will lead to better-informed management outcomes and improved technical assessment capacity in the relevant decision-making institutions in the medium-run. Certainly, this capacity must continue to be strengthened and broadened as biosafety and related technical innovations are not static but change over time.

The government's dedication to sustainably improve Colombia's capacity in biosafety is demonstrated by the involved institutions, which use and financially support the project outputs, such as the laboratory and the BCH. Additional sustainable outputs of the project include the publications produced during project implementation, which have been widely disseminated (physically and online). Overall, the sustainability of the project outcomes rated as **significant**, especially considering the planned continued involvement of the GEF and the World Bank in similar projects in the region.

#### E. PERFORMANCE

#### 1. Bank

Rate and justify rating on how well the Bank carried out its specific responsibilities assumed under the Trust Fund. If the TF financed Secretariat functions, describe how well the Secretariat carried out its roles and responsibilities, and its exit strategy, if any. If the Bank is executing Recipient work on behalf of Recipient, describe how well the rationale for Bank execution (as specified in the IBTF) was realized. (Rating Scale would be consistent with the six point scale used in ISR/ICR: Highly Satisfactory (HS), Satisfactory (S), Moderately Satisfactory (MS), Moderately Unsatisfactory (MU), Unsatisfactory (U) and Highly Unsatisfactory (HU))

The Bank carried out five formal supervision missions throughout project implementation (April and December 2004, July 2005 (MTR), May 2007, and July 2007). In its final report, the PCU states that "the World Bank constantly and effectively followed-up on the project throughout implementation."

### Rating? HU to HS.

### 2. Recipient (for Recipient-executed TFs only)

Rate and justify rating on how well the different tasks that were expected from the Recipient under this Trust Fund were carried out. (Rating Scale would be consistent with the six point scale used in ISR/ICR: Highly Satisfactory (HS), Satisfactory (S), Moderately Satisfactory (MS), Moderately Unsatisfactory (MU), Unsatisfactory (U) and Highly Unsatisfactory (HU))

The PCU was effective in implementing project activities efficiently, building relationships to promote project activities, involving stakeholders in the project, and disseminating results. The PCU's outreach efforts are exemplary, demonstrated by the numerous achievements that exceeded their original commitments and expected targets and the additional activities conducted. The project team worked effectively with the various government entities to ensure broad engagement of and concerted collaboration between various sectors. The project's participation in aforementioned national and international gatherings as well as its engagement in producing relevant publications underlines these efforts. Therefore, PCU performance was rated satisfactory.

Financial Management is rated **moderately satisfactory**. All project funds have been disbursed, except for an approximately \$20,000, which has been reimbursed to the World Bank. All audit reports were submitted in a timely fashion and found acceptable.

#### F. LESSONS LEARNED / RECOMMENDATIONS

Describe the most significant positive and negative lessons learned from the success or failure of the grant activity and, as appropriate, make constructive recommendations for each stakeholder involved (Donor/Bank/Recipient/Development Community)—based on the assumption these stakeholders might decide to undertake a similar activity at a future time.

The most relevant lessons learned from the project can be summarized in three points:

- 1. The *inter-sectoral collaboration and continued dialogue among key stakeholders* were crucial in making project implementation more efficient and effective. The continuous dialogue between members of the competent authorities and biosafety working groups was critical for reaching consensus and discussing next steps in strengthening Colombia's regulatory framework to comply with the Cartagena Protocol.
- 2. Combining workshops and courses with an in-depth academic graduate program was advantageous and effective.
- 3. Strengthening information and communications channels to objectively communicate concepts and decisions taken with respect to GMOs and biosafety has been crucial. In this respect, the project made use of four dissemination channels: i) the handbooks as sources for general as well as specific up-to-date information; ii) the BCH online database and platform for discussion and inquiry; iii) the provision of courses and workshops open to multi-sectoral participants; and iv) the project's representation in national and international conferences.

#### Additional lessons learned are:

- 1. Despite the benefits of including various sectors in the discussion on institutional strengthening in biosafety, one must not underestimate the complexity of involving many institutions with different viewpoints and objectives. Working out details and defining responsibilities is a time-consuming process which must be taken into account during project preparation in order to avoid delays during implementation. Nevertheless, biosafety projects should continue to encourage inter-sectoral dialogue as it combines efforts and broadens viewpoints as well as access to different groups in the society.
- 2. The process on how to integrate the economic analysis is crucial from the beginning of project preparation, especially given the complex nature of the project like the one at hand. As a typical cost-benefit analysis is difficult to apply, a continuous stakeholder analysis involving surveys could be a recommended activity to improve impact measurement.

In sum, the project laid the foundations for the development of an adequate biosafety system in Colombia. However, efforts need to continue to guarantee efficient, effective, and publicly approved decision-making with respect to the use of GMOs in Colombia. The FSP and MSP multi-country projects under preparation constitute an ideal opportunity to continue the efforts commenced in Colombia and to make use of the capacities generated throughout this project.

# G. ICM PROCESSING AND COMMENTS

1. Preparation

TTL at Approval: Matthew McMahon

TTL at Closing: Willem Janssen

Comment of TTL at Closing: XXXX

Prepared by: A. Horst and W. Janssen with inputs from I.J. Ekanayake, M. McMahon,

J. Martinez, J. Estupinan.

Date Submitted to Approving Manager: XXX, 2008

2. Approval

Manager: Ethel Sennhauser

Date Approved by Manager: Manager's Comment:

3. TFO Evaluation of ICM Quality

TFO Reviewer:

TFO Rating on the Quality of ICM (Satisfactory or Unsatisfactory):

Comment and Justification for Rating Given by TFO: