United Nations Environment Programme

Terminal Evaluation of the UNEP/GEF Project "Conservation and Sustainable Management of Below Ground Biodiversity"

by
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Evaluation Office
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Contents

LIST OF ANNEXES

Acronyms and Abbreviations

BD – Biodiversity
BGBD – Below Ground Biodiversity
CBD – United Nations Convention on Biodiversity Conservation
CCD – United Nations Convention to Combat Desertification
CIAT - International Centre for Tropical Agriculture
EA – Executing Agency
EO – Evaluation Office
FA – Focal Area
FY – Financial Year
GCO – Global Coordinating Office
GEF – Global Environmental Facility
GSBI – Global Soil Biodiversity Initiative
IA – Implementing Agency
KM – knowledge management
LF, logframe – logical framework
MTE – Mid-Term Evaluation
MTS - Medium Term Strategy
NGO – non-governmental organisation
OP – Operational Programme
PAC – Project Advisory Committee
PCO - Project Coordinating Office (Country level)
PIR – Project Implementation Report
PIU – Project Implementation Unit
PM – Project Manager
PMU – Project Management Unit
ProDoc, PD – Project Document
PSC – Project Steering Committee
SC – Steering Committee
SLM – sustainable land management
TE – Terminal Evaluation
TM – Task manager
ToC – Theory of Change
TP - Thematic Priorities
TSBF - Tropical Soil Biology and Fertility Institute
UNEP – United Nations Environment Programme

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Notice

The findings, interpretations, and conclusions expressed in this report are those of the author and do not necessarily reflect the views of UNEP or interview participants. While every effort was made to triangulate information, any misinterpretations, errors or omissions are the responsibility of the author.

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Project Identification Table

GEF project ID:	GF/1030-06-01	**IMIS number:**	GFL/2328-2715-4923
Focal Area(s):	Biodiversity	**GEF OP #:**	13,3
GEF Strategic Priority/Objective:	BD-2	**GEF approval date:**	8th February 2006
UNEP approval date:	Tranche I: 1 August 2002 Tranche II: 28 April 2006	**Date of first disbursement:**	Tranche I: 13 August, 2002 Tranche II: 4 May 2006
Actual start date:	Tranche I: 1 August 2002 Tranche II: 28th April 2006	**Planned duration:**	Tranche I: 36 months Tranche II: 36 months
Intended completion date:	Tranche I: July 2005 Tranche II: December 2010	**Actual or Expected completion date:**	Tranche I:June 2005 Tranche II: August 2010
Project Type:	FSP	**GEF Allocation:**	Tranche I: $5,022,646 Tranche II:$4,007,124
PDF GEF cost:	PDF A – US$25,000 PDF B – US$248,000	**PDF co-financing:**	US$36,000
Expected MSP/FSP Co-financing:	$7,438,678	**Total Cost:**	US$16.777.448
Mid-term review/eval. (planned date):	May 2005	**Terminal Evaluation (actual date):**	February-May 2013
Mid-term review/eval. (actual date):	May 2005	**No. of revisions:**	Tranche I: 4 Tranche II: 3
Date of last Steering Committee meeting:	December 2009	**Date of last Revision:**	Tranche I: 29.08.2007 Tranche II: 13.5.2009
Disbursement as of 30 June 2012:	Tranche I: $5,022,646 Tranche II:$3,961,322	**Date of financial closure:**	N/A
Date of Completion*:	Expected August 2010	**Actual expenditures reported as of 30 June 2012:**	Tranche I: $5,022,646 Trance II: $3,937,391
Total co-financing realized as of 30 June 2012:	Tranche I: $4,863,181 Tranche II:$6,643,630	**Actual expenditures entered in IMIS as of 30 June 2012:**	Tranche I: $5,022,646 Tranche II:$4,000,624
Leveraged financing:	Tranche I: $1,621,629 Tranche II:$2,446,504		

Source: Project Document, Terminal Evaluation Terms of Reference, comments provided by the Project Financial Manager

Executive Summary

Introduction.

i. The full-size GEF-UNEP project "Conservation and Sustainable Management of Below-Ground Biodiversity" (BGBD) was aimed "to enhance awareness, knowledge and understanding of below-ground biological diversity important to sustainable agricultural production in tropical landscapes by the demonstration of methods for conservation and sustainable management". It was a global multi-country project which covered benchmark sites in seven countries: Brazil, Cote d'Ivoire, India, Indonesia, Kenya, Mexico, and Uganda

ii. The Implementing Agency (IA) for this project was the United Nations Environment Programme (UNEP). The lead Global Executing Agency was the Tropical Soil Biology and Fertility Institute (TSBF) of CIAT (International Centre for Tropical Agriculture) in Nairobi, Kenya, which provided managerial, administrative and financial execution of the project, and helped to coordinate project activities including organization of global workshops, management of the global database and information system, publication of results, facilitating the reporting and transferring of funds from the implementing agency to the participating countries. In each partner country national executing bodies have been established in Universities or Scientific Institutes with high experience in studying below ground biodiversity.

iii. The project work was divided in two tranches: Tranche I running for August 2002-June 2005 and Tranche II running for April 2006-July 2010. This evaluation covers both Tranches focusing significantly on Tranche II because a separate evaluation has been undertaken of Tranche I considered as a Mid Term Evaluation (MTE) for the whole project.

iv. Total GEF financing was US$9,029,770, comprising US$5,022,646 for Tranche I and US$4,007,124 for Tranche II, as well as GEF financing that included PDF A US$25,000 and PDF B US$248,000. Financing from other partners exceeded GEF financing, with the reported co-financing and leveraged funding totalling US$11,506,811.

Findings and Conclusions

v. The key questions for this evaluation concern project effectiveness, catalytic effect and sustainability that are addressed in Part II of this report. The overall rating for this project based on the evaluation is reflected in the following table

Criterion	Rating
Attainment of project objectives and results	S
Sustainability of project outcomes	MU
Achievement of outputs and activities	S
Preparation and readiness	MS
Implementation approach	S
Financial planning and management	S
Monitoring and Evaluation	MS
UNEP Supervision and backstopping	HS

vi. The project was in general very successful in generating scientific knowledge of below ground biodiversity in the tropics, particularly in inventory of soil biodiversity and methods of its sampling and identification. These achievements also allowed the discovery of new species and making a number of new records of soil biota[1]. Activities in land conservation and land management technologies and biotechnology applications, and also training and other public relations actions in participating countries have provided noticeable impact in public awareness and capacity building at all levels: from grassroots to policy makers.

vii. The project managed to produce and disseminate new scientific knowledge about the interrelations between such environmental issues as biodiversity conservation and land degradation, and also a

[1] New records means findings of earlier known species in new habitats

cross-linkage with other key environmental and development issues such as food security, climate change and carbon and nitrogen cycle, potable water supply, genetic resources, etc. A few interesting results have been achieved in the field of environmental services assessment.

viii. While the project's intended outcomes were not achieved at the same level in participating countries, this non-uniformity helped to make the overall project implementation more comprehensive.

ix. As of August 2013 the project activities were still continuing through data processing and uploading to data bases, books and papers under preparation, and demonstration sites operational and supported to different extents from various sources.

x. However, there are a number of outstanding activities and issues that were not fully addressed during the project and this has affected the evaluation ratings. In particular, the global BGBD database although completed during the project, but due to reorganization of TSBF and some structural changes in CIAT HQ, was not integrated into the CIAT portal. The result is that at the time of this evaluation the global BGBD database and web-site were not operational, although there are plans to revive them. The evaluation also notes that the issue/concept of sustainable management of BGBD was not realized so much in the project as were BGBD conservation and/or BGBD use; results on conceptualization of economic evaluation of soil biodiversity were also not actively applied in case studies.

xi. The Review of Outcomes to Impact analysis has highlighted the strong catalytic potential of the project and replication effect (including practical applications of biotechnologies and scientific experiments, capacity building, policy making, new projects and scientific entities) in partner countries and even beyond, despite the fact that it has not developed any formal strategy or framework for scaling up activities and outcomes.

xii. However, it is uncertain at this stage whether the level of stakeholder ownership and participation would be sufficient to promote further dissemination of the project results. The overall project impacts have yet to be achieved. This evaluation considers that impact will be growing at least during 5-7 years after the formal project completion.

xiii. In terms of sustainability, it is difficult to evaluate the overall project as it differs in relation to the different project spheres: in general the most successful areas, scientific data generation and knowledge management, seem also to be the most sustainable, and the less successful practical applications are less sustainable in most cases. However, there are a few successful and sustainable practical examples of BGBD conservation and sustainable management in some countries.

xiv. The socio-political sustainability of the project is considered to be low. The project did not work out the exit strategy to enhance socio-political incentives to scale-up successful approaches and technologies. In general (with a few exceptions) the interest of support by national governments of project initiatives is low and occasional, so is support from strong international NGOs and businesses. Progress towards the development of legislation and enforcement is also weak.

xv. The strengthening and support of regional cooperation (for example, between Mexico and Brazil involving other LAC countries, between Kenya, Uganda and Ivory Coast involving other African countries) launched by the project, seems to be the more effective area for future development in the nearest future, than global project initiatives.

Lessons

Project design

xvi. The hosting of the projects mainly in universities and research institutes stimulated great success in providing sustainability of scientific and knowledge management results. On the other hand, although the project was designed, approved and implemented as a GEF targeted research project, many stakeholders noted that the results of the project will be more sustainable if they are mainstreamed in practice.

xvii. Project planning at national level should better take account of national, regional and local peculiarities and priorities, peculiarities of key stakeholders in different countries, and incentives for practical applications. Concerning project practicality it can be noted that the project had a strategy on how to identify and demonstrate technologies, but not a strategy on how to apply them. In other words, delivery and dissemination should be considered as an integral part of demonstration activities of the project.

xviii. While applying new technologies at local level, the issue of marketing and diversification of agriculture to avoid risks of technology misuse errors and unsteadiness in production is crucial and should be taken into account from the very project start.

Project implementation

xix. To get support from local people a biodiversity conservation project like this should create strong links to peoples' needs, mainly to soil fertility, pasture productivity, public health, clean water, etc.

xx. In future projects of this type, environmental education should be included as an essential subcomponent. This could serve as an effective awareness raising mechanism in the project.

Sustainability

xxi. Public awareness products and methods with a wider reach (such as illustrated booklets and brochures, cooperation with schoolteachers, extension officers, local NGOs and local authorities, etc.) produce quicker impact than specific scientific papers published in peer-reviewed journals and/or scientific monographs.

xxii. The catalytic effect of the project could have been higher if the project had developed a strategy or framework for scaling up its activities and outcomes.

xxiii. New data bases on biota and biodiversity created by separate projects are not viable if not integrated with existing functional national or international data and knowledge systems.

Impact

xxiv. Biodiversity is still not among priorities in rural areas at local and regional level, and project sites are not excluded. BGBD is still an abstract idea for many policy makers and governmental officials hence the relevance to general country strategies and plans is very obscure.

xxv. Innovative biotechnologies and good land use practices were identified and tested in pilot demonstration project sites over a total of 132 farmer-level demonstration plots. These practices and technologies were documented mainly in scientific literature and are not available to wide audiences and potential users. It is recommended that relevant information on technologies and approaches be provided to national extension services and to the WOCAT international data base for further dissemination.

Recommendations

xxvi. Data collected by the project should be integrated into existing international operational systems, such as JRC's European Soil Database, FIGS, The ECN Data Centre, and others. It is recommended to TSBF-CIAT to find opportunities to select appropriate systems and forward/upload the project data for public access taking into account intellectual property rights.

xxvii. An idea appeared during evaluation to establish an on-line scientific journal on soil biodiversity capable of publishing data on soil biota inventories, collections and data bases. Such information is currently not easily available in scientific literature, and this journal would be able to fill the gap. The University of Stellenbosch (South Africa) has already support this idea and is ready to host the journal. An initiative should be undertaken by the TSBF-CIAT or any active project partner to develop the idea.

Part I. Evaluation Background

1. Part I of the terminal evaluation provides the general country and institutional context, relevant project information (rationale, objectives, components, intervention areas and target groups, milestones in design, implementation and completion, implementation arrangements and main partners, financing, modifications) and the evaluation objectives, scope and methodology.

A. Context

2. United Nations Environmental programme (UNEP) since August 2002 led the project "Conservation and Sustainable Management of Below-ground Biodiversity" with the acronym CSM-BGBD, aimed at enhancing awareness, knowledge and understanding of BGBD important to sustainable agricultural production in tropical landscapes by the demonstration of methods for conservation and sustainable management.
3. The project explored the hypothesis that by appropriate management of above- and below-ground biota, optimal conservation of biodiversity for national and global benefits can be achieved in mosaics of land-uses at differing intensities of management, and furthermore result in simultaneous gains in sustainable agricultural production.
4. The initial project lifespan of 5 years was further subdivided into two tranches and after a few delays and a no-cost extension was completed in July 2010.
5. The project was executed in 7 tropical countries: Brazil, Cote D'Ivoire, Indonesia, India, Kenya, Mexico and Uganda.
6. This evaluation was conducted in January-April 2013.

B. The Project

Rationale

7. The soil biota community, including bacteria, fungi, protozoa and invertebrate animals, is extremely diverse and numerous. Few data are available from tropical regions, where it is suspected that the highest levels of diversity and density may be found. Although the biological diversity of the community of organisms below-ground is probably higher than that above-ground, it has generally been ignored in surveys of ecosystem biodiversity.
8. Soil organisms contribute a wide range of essential services to the sustainable function of all ecosystems, by acting as the primary driving agents of nutrient cycling; regulating the dynamics of soil organic matter, soil carbon sequestration and greenhouse gas emission; modifying soil physical structure and water regimes; enhancing the amount and efficiency of nutrient acquisition by the vegetation through mycorrhiza and nitrogen fixing bacteria; and influencing plant health through the interaction of pathogens and pests with their natural predators and parasites. These services are not only essential to the functioning of natural ecosystems but constitute an important resource for the sustainable management of agricultural ecosystems.
9. The processes of land conversion and agricultural intensification are significant causes of biodiversity loss, including that of BGBD, with consequent negative effects both on the environment and the sustainability of agricultural production. At the root level are a set of causes related to the processes controlling land use conversion and agricultural intensification including: population increase, national food-insufficiency, internal geographical imbalances in food production, progressive urbanization and a growing shortage of land suitable for conversion to agriculture. At the proximate level, loss of biodiversity is associated with decision making at the household and/or community levels about the crops and livestock to be produced, and the methods to be used for their production.
10. As land conversion and agricultural intensification occur, the planned biodiversity aboveground is reduced (up to the extreme of monocultures) with the intention of increasing the economic efficiency of the system. This impacts the associated biodiversity of the ecosystem e.g., micro-organisms and invertebrate animals both above- and below-ground thus lowering the biological capacity of the ecosystem for self-regulation and hence leading to further need for substitution of biological functions with agrochemical and petro-energy inputs.
11. Scientists have begun to quantify the causal relationships between (i) the composition, diversity and abundance of soil organisms, (ii) sustained soil fertility and associated crop production, and, (iii) environmental effects including soil erosion, greenhouse gas emissions and soil carbon sequestration. Consequently, actions that directly target the joint conservation of both above- and

below-ground components of biological diversity will have environmental benefits at ecosystem, landscape and global scales.

12. The failure to take such actions is partially attributable to the absence of agreement on standardised methods for the study of BGBD, and a lack of both knowledge and awareness of this key component of global biodiversity. Sustainable and profitable management of agricultural biodiversity, including BGBD, is dependent on information about the current status, the value perceived by the various sectors of society, and the factors which drive change in one direction or other. Despite its importance to ecosystem function, the soil community has been almost totally ignored in considerations of biodiversity conservation and management even at the inventory level.

13. The scarcity of information is in part due to lack of international consensus on standardized methods for the determination of BGBD, its functional significance and its present and future value. Furthermore, this methodology gap has limited the generalization and comparability of results from previous studies and their applicability to management of BGBD.

14. This project therefore addresses the means by which BGBD may be adequately managed and conserved in tropical agricultural landscapes. It was executed in 7 tropical countries: Brazil, Cote D'Ivoire, Indonesia, India, Kenya, Mexico and Uganda. The project work was scheduled into two tranches: Tranche I running for August 2002-June 2005 and Tranche II running for April 2006-July 2010. This evaluation covers both Tranches I and II of the project, mainly focusing on Tranche II, because a separate evaluation was done for Tranche I considered as Mid Term Evaluation (MTE) for the whole project.

Objectives

15. The project's development objective (goal) given in the project logframe is enhancing the conservation and sustainable management of below-ground biodiversity. Its immediate objective was formulated as "BGBD conserved and sustainably managed in globally significant forest ecosystems in seven tropical countries"[2].

16. The overall (main) project objective was formulated in the Project Document (p.22) as "to enhance awareness, knowledge and understanding of below-ground biological diversity (BGBD) important to sustainable agricultural production in tropical landscapes by the demonstration of methods for conservation and sustainable management". This was a carefully crafted objective statement that reflected the realization that at the point of project conceptualization, the lack of knowledge and understanding of BGBD and its importance for maintaining a healthy soil ecosystem was the single most important constraint towards conservation and sustainable management of soil biodiversity.

17. It was also stated in the project document that the project would "explore the hypothesis that, by appropriate management of above- and below-ground biota, optimal conservation of biodiversity for national and global benefits can be achieved in mosaics of land-uses at differing intensities of management and furthermore result in simultaneous gains in sustainable agricultural production"

Components

18. The project had five components corresponding to its anticipated outcomes[3] (Table 1).

19. Component I of the project was a targeted research component which sought to provide the information, knowledge and tools that form the essential basis for the proper development of other operational components of the project.

20. Component II sought to prepare inventories and evaluate the baseline for agrobiodiversity status and management, with particular reference to BGBD, and its second arm sought to facilitate cross-country analysis and synthesis of BGBD data using an International Information System on the World Wide Web.

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[2] At the early stages of GEF all projects had to have Development objective (Development Goal) and Immediate objective (Project purpose). The projects are supposed to meet their respective Immediate objective and only contribute to some extent to the Development objective. The development objectives were formulated in such a way that they covered a much broader agenda than the scope of the specific projects and it had been assumed that the projects will continue to contribute to the development objectives after their completion.

[3] At the early stages of GEF there was no clear difference between outcomes and outputs. In this section we apply the terminology used at the time of the project design.

21. Component III of the project sought to establish and implement sustainable and replicable management practices for BGBD conservation on pilot demonstration sites, which practices also show potential agronomic, social and economic benefits.

22. Component IV sought to improve decision making for stakeholders, particularly policy makers and other decision-makers, by providing an advisory support system and decision aids on recommended or alternative land use and land management practices which support agricultural development priorities as well as biodiversity conservation and environmental conservation (win-win situation).

23. Component V sought to enhance capacity of all stakeholder groups to implement conservation and management of BGBD in a sustainable and efficient manner in and beyond the participating countries. It also sought to increase awareness throughout the diverse groups of stakeholders of BGBD and its importance.

24. Table 1. Project components

Components	Anticipated outcomes
Component I Standardized methods	Outcome 1. Internationally accepted standard methods for characterization and evaluation of BGBD, including a set of indicators for BGBD loss
Component II Inventory of BGBD	Outcome 2a) Inventory and evaluation of BGBD in benchmark sites representing a range of globally significant ecosystems and land uses. Outcome 2b) A global information exchange network for BGBD.
Component III BGBD management	Outcome 3. Sustainable and replicable management practices for BGBD conservation identified and implemented in pilot demonstration sites in representative tropical landscapes in the seven countries.
Component IV Policy advisory system	Outcome 4. Recommendations of alternative land use practices and an advisory support system for policies that will enhance the conservation of BGBD.
Component V Capacity building	Outcome 5. Improved capacity of all relevant institutions and stakeholders to implement conservation and management of BGBD in a sustainable and efficient manner.

Intervention Areas and Target Groups

25. The project was initiated to fill a gap in the knowledge and awareness in soil biodiversity for the purpose of Global Biodiversity Assessment (undertaken by UNEP in 1995) where the sections of agrobiodiversity and in particular the below-ground component were considered as the most incomplete and inadequate, and also the project aimed at linking knowledge of soil biodiversity to agricultural productivity and food policies, also with those conserving biodiversity and environmental management.

26. The project was implemented by teams of technical experts, drawn from Universities, National Research Institutions and NGOs in the participating countries. Close collaboration has been established with National Agricultural Research institutions, extension services and NGOs in each of the countries, as well as a number of environmental institutes. Expertise in agronomy, agricultural economics and crop and pest management and land-use planning largely came from these partners.

27. The present capacity of seven participating countries was considered to be built upon, through “South-South” exchanges and training. For countries and site selection a comprehensive set of criteria was applied. The project addressed the general deficit in knowledge related to the conservation and management of BGBD, and sometimes of agrobio-diversity as a whole in the action plans and policies in agricultural and forestry sectors.

28. The project involved a wider range of stakeholders including farmers, extension officers, NGOs, scientists from Universities and National Agricultural and Forestry Research Institutions, and local, national and global decision-makers.

29. At the most direct level farmers in the project benchmark areas benefited from the advice and intervention of the project scientists, received directly or through collaborating NGOs and Government extension services.

30. At the national level, governments benefited from the improved information on land-use design, biodiversity conservation, environmental protection and rehabilitation of degraded land, as well from NGOs involved in the same sectors.

Milestones in Design, Implementation and Completion

31. To a certain extent the project can be considered as a response to the programme on agricultural biodiversity of the Convention on Biological Diversity initiated at COP-3 (decision III/11, Buenos Aires, 1996). The project evolved from the framework concept of Agricultural Biological Diversity presented and circulated by UNEP and CBD in November 2001 (UNEP/CBD/SBSTTA/7/INF/11)

32. The project started off at a slow pace, given the fact that conceptualization started as early as 1996. After project approval in August 2002, the final Memoranda of Agreement with convening country institutes was signed by January 2003, whereas institutional developments and Global Office appointments at the Executing Agency further delayed the full inception of BGBD. From 2004 performance improved markedly at all levels. An agreed extension of the first tranche by 6 months, led to a shared feeling of satisfaction among participants at the Annual Meeting 2005

33. The project was submitted for CEO endorsement of Tranche 2 on 7 September 2005. Due to the lack of financial resources the GEFSEC placed the project on hold. This delayed the start of Tranche II implementation which was only approved by the CEO GEF on 8 February 2006. Further, implementation of the activities in the Country Project Components was delayed at the start of the second tranche, mainly because of the additional time required to establish new and detailed agreements with the executing institutions of the country project components and subsequent delays in transfer of funds. Because of this it was not feasible to adhere to the original end date of the project of April 30, 2009. A no-cost extension to the end of August 2010 was requested and approved. Actually the project was completed on 15 July 2010.

34. A Mid-term evaluation of the project was conducted by the UNEP Evaluation and Oversight Unit in June 2005. There were no tremendous changes in the project design except some clarifications in the project governance and M&E.

Implementation Arrangements and Main Partners

35. UNEP was the Implementing Agency (IA) for this project with responsibility to provide overall project oversight to ensure that GEF policies and criteria were adhered to and that the project met its objectives and achieved expected outcomes in an efficient and effective manner.

36. The project was implemented in seven countries. This global structure required strong management that was a responsibility of the lead Executing Agency, the Tropical Soil Biology and Fertility Institute (TSBF) of CIAT in Nairobi, Kenya, in coordination with the national project executing agencies including: Brazil: Universidade Federal de Lavras; Côte d'Ivoire: Université de Cocody (Abidjan); India: Jawaharlal Nehru University; Indonesia: Universitas Lampung; Kenya: University of Nairobi; Mexico: Instituto de Ecologia, Xalapa; Uganda: Makerere University. TSBF was to be responsible for the overall coordination and execution of the Project in accordance with the key project objectives. It was expected that TSBF would undertake this task by making full use of relevant technical expertise at its Headquarters and the wide experience in coordinating and facilitating international networks. TSBF also provided managerial, administrative and financial procedures to ensure proper execution of the project, and at the same time helped to coordinate the project activities including organization of global workshops, management of the global database and information system, publication of results, facilitating the reporting and transferring of funds from the implementing agency to the participating countries.

37. At the Global level the Project Steering Committee (PSC) was the body that took decisions regarding all matters pertaining to the implementation and management of the project. It had representatives from all the Project Partner Countries, UNEP/GEF and TSBF. Project activities were coordinated by the Global Coordination Office (GCO) hosted by TSBF. GCO worked with assistance of the Project Advisory Committee (independent oversight committee of eminent scientists). The GCO included the Global Project Coordinator, Project Information manager, Project Administrator, Research Assistant and Secretary.

38. In each of the project partner countries a Country Program Coordinating Office (CPCO), led by the Country Project Coordinator was established. At the national level project implementation was supported by two national committees; the Project Implementation Committee that acted as National project Steering Committee and the National Project Advisory Committee. The latter included representatives of ministries and other national/international organizations (governmental and NGOs) concerned with agricultural development and biodiversity

conservation. This committee oversaw project activities and helped in establishing links between stakeholders, particularly with decision makers at governmental level. The Project Implementation Committee, chaired by the hosting institution (national executing body) included scientists, extension officers, NGOs and farmer groups with the specific responsibility of implementing project activities.

39. The National Executing Agencies reported directly to the GCO and the GCO reported to UNEP/GEF.

40. Linkages were also provided to about 50 other international and national projects, and international donors such as CGIAR and FAO, DIVERSITAS programme, IUCN, WWF and others

Financing

41. In accordance with the Tranche II project document and final technical report, the overall Project Budget was the following

	Planned[4]	Actual[5]
Tranche I – GEF contribution	$5,022,646	$5,022,646
Tranche II – GEF contribution	$4,007,124	$4,000,624
Expected co-financing confirmed at project approval	$7,438,678[6]	
Actual co-financing contribution project partners Tranche I		$4,863,181
Actual co-financing contribution project partners Tranche II		$6,643,630
PDF-A (GEF)	$ 25,000	$ 25,000
PDF-B (GEF)	$248,000	$248,000
PDF Co-financing support	$36,000	$36,000
Total project	$16,777,448	20,839,081

42. The project has attracted counterpart funding, particularly in kind from project partners and stakeholders, which is discussed further in Part II, section C5 Financial Management.

C. The Evaluation

43. In accordance with the ToR, this terminal evaluation is undertaken to assess project performance (in terms of relevance, effectiveness and efficiency), and determine outcomes and impacts (actual and potential) stemming from the project, including their sustainability.

Purposes

44. The evaluation has two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote learning, feedback, and knowledge sharing through results and lessons learned among UNEP as the project implementing agency (IA), TSBF-CIAT as the project executing agency (EA), the selected universities in partner countries and the GEF and their partners. The evaluation aimed to identify lessons of operational relevance for future project formulation and implementation.

Criteria and Key Questions

45. A minimum set of evaluation criteria grouped in four categories has been provided by the ToR: (1) Attainment of objectives and planned results, which comprises the assessment of outputs achieved, relevance, effectiveness and efficiency and the review of outcomes towards impacts; (2) Sustainability and catalytic role, which focuses on financial, socio-political, institutional and ecological factors conditioning sustainability of project outcomes, and also assesses efforts and

[4] Source: Project Document, Tranche II, cover page

[5] Source: UNEP GEF PIR Fiscal Year 10 (1 July 2010 to 30 June 2011), cover page

[6] Source: the same as above and also page 2 and 24 of the Project Document, Tranche II

achievements in terms of replication and up-scaling of project lessons and good practices; (3) Processes affecting attainment of project results, which covers project preparation and readiness, implementation approach and management, stakeholder participation and public awareness, country ownership/driven-ness, project finance, UNEP supervision and backstopping, and project monitoring and evaluation systems; and (4) Complementarity with the UNEP strategies and programmes.

46. In accordance with the ToR, the evaluation focuses on the following sets of **key questions**, based on the project's intended outcomes[7]:

- How successful was the project in establishing internationally accepted standard methods for characterization and evaluation of BGBD, including a set of indicators for BGBD loss?
- How successful was the project in creating an inventory and evaluation of BGBD in the benchmark sites?
- To what extent was the project successful in creating sustainable and replicable management practices for BGBD conservation in the 7 countries?
- To what extent did the project improve capacity of relevant institutions and stakeholders to implement conservation management of BGBD in a sustainable and efficient manner in and beyond the participating countries?
- How successful was the project in enabling global information exchange network for BGBD?
- How successful was the project in enhancing BGBD conservation through recommendations of alternative land use practices and an advisory support system?
- To what extent did the provision of an advisory support system for BGBD conservation improve decision making for stakeholders, particularly policy makers?

Timeframe, data collection and limitations of the evaluation

47. The evaluation took place between 21 January and 30 April 2013. The list of persons interviewed during the course of evaluation is provided in Annex 3 and the itinerary and evaluation timeline is provided in Annex 2.

48. The evaluation methodology was based on the ToR and several manuals and guidelines, such as UNEP Evaluation Manual,. GEF. Evaluation Office. "Guidelines for GEF Agencies in Conducting Terminal Evaluations. Evaluation Document No. 3. 2008"; UNEP. "Evaluation Policy. Evaluation Office. September 2009"; GEF. "Review of Outcomes to Impacts. Practitioner's Handbook. GEF Evaluation Office with Conservation Development Centre. Draft. June 2009".

49. The logic and data sources used for the terminal evaluation is described in the Annex 2 and 4:

50. In terms of constraints, it should be noted that the evaluation was organized after more than 2 years of the project completion. This limited the availability of many project partners and stakeholder to be interviewed, because many of them have shifted to other positions and those available have forgotten to a certain extent what has been done in the past. On the other hand, this time lag allowed for a better understanding of the real progress being made towards project impacts and sustainability, because many intermediate and unplanned results were not supported after project end, and other results appeared even after it.

51. Another big problem was difficulties in receiving information from all countries and stakeholders involved in the project (the evaluator got very limited information from Uganda, Indonesia and India, and no information from Ivory Coast). However, the triangulation approach and fragmentary information from the open sources provided enough information to get the overall impression of the project.

[7] The full set of extended questionnaire (not used as a question list to fill in, but as a list of topics to be discussed) was developed by the Evaluator on the basis of the ToR and used in meetings with the project stakeholders (annexes 8,9) for interviewing.

Part II. Project Performance and Impact

A. Attainment of Objectives and Planned Results

A 1. Project activities and outputs achieved

52. In part I (sections “Objectives” and ”Components”) the full range of the project objectives and anticipated outcomes have been listed.

53. The project Logical Framework Matrix contains sixteen associated activities related to five outcomes and 63 performance indicators mainly drafted as project outputs[8].

54. This framework, containing performance indicators, means of verification, list of risks and assumptions related to each outcome and activity has been used for general communications, M&E and adaptive management (discussed in Section “Monitoring and Evaluation”), and reporting. The formulation of several activities as well as some performance indicators and means of verification were slightly changed after the MTE in Tranche II project document to clarify intended results, but did not influence the overall project context.

55. All participating countries formally used the standardized framework matrix for planning and monitoring of the activities. Indeed, planning and implementation processes differed in countries reflecting national priorities and country peculiarities. This resulted in project intended outcomes being advanced to different degrees in participating countries. This non-uniformity of the results provides a synergy and comprehensiveness of the project as a whole.

56. It is difficult to trace the achievement of the project development objective (goal) and purpose by all performance indicators as they were formulated in the project logframe. Not all of these 63 indicators, in particular those suggested to indicate the progress in the project activities were used for reporting in annual PIRs, but only 20 of them related to the progress of the project objectives and outcomes, and also 16 formulations of the project activities used instead of other 43 performance indicators. Our overall evaluation of these “main” indicators (20+16=36) shows that basically the project’s goal and purpose have been achieved mainly in terms of capacity building and identification of BGBD conservation practices, but failed to a certain extent in cases of internet-based information system and data base[9], demonstration of ecosystem services and conservation of biodiversity threatened areas; that indicates the ambitious character of the project’s overall purpose.

57. The achievements of the project outcomes and activities can be followed via annual PIRs and national reports, which are detailed enough and useful for tracking project progress. Also these results were reaffirmed during field mission (see assessment of anticipated results in Annex 11). Basically, all activities were completed, with varying levels of success in laying the foundation for longer term impacts based on different baseline factors: awareness and knowledge levels, infrastructure and government priorities.

Outcome 1. Internationally accepted standard methods for characterization and evaluation of BGBD, including a set of indicators for BGBD loss

58. The lack of standardized methods for BGBD study (including sampling) and evaluation has been a crucial point for the development of conservation practices and sustainable management of soil biodiversity. The project undertook tremendous efforts at the global and national level (seminars, workshops, roundtables) to harmonize these methods and make them available to global community. It took more time and work than had been anticipated, but finally resulted in the manual developed and published in English, Spanish and Portuguese (A Handbook for Tropical Soil Biology), which can be considered as a basic guideline in this aspect providing a useful platform for further development of methods and approaches for BGBD conservation and sustainable management. About 30 scientific papers have been published on this topic.

59. The significance of BGBD in ecosystems functions and links between different biophysical components within tropical landscapes and ecosystems have been studied and justified by different examples. Main functional groups of soil biota have been identified in accordance with domains and kingdoms, size and related ecosystems processes. These achievements are

[8] The logframe followed the GEF formulation at 2006 on outcomes and outputs and was based on 2002 logframe.

[9] See also para 68

reflected in numerous (more than 100) scientific reports, books and articles published in scientific journals and also some of them available on the national web-sites.

60. New methods to indicate soil quality and soil health using soil biodiversity have been suggested and tested in the project benchmark areas that add value to soil biota to be used as integral indicator for land use and land degradation assessment and not only for loss of BGBD. The scientific concept of "soil health" has been enhanced.

61. A number of studies on the economic valuation of BGBD were implemented by the project in several countries, especially in Indonesia, India and Mexico. A big progress was made in conceptualization of economic evaluation of soil biodiversity using concepts of ecosystem services and soil health and adaptation of different economic models and methods to valuate BGBD, such as contingent valuation, travel cost method, hedonic price models, replacement costs, cost-benefit analysis, and others. The complexity of this topic and progress achieved through the project was underlined during a workshop held in Uganda in late 2009. Unfortunately, the project managed to apply very few of these approaches in particular studies at the project sites/plots (the only example in Mexico was discovered during evaluation). This made it difficult to determine demonstrable economic benefits derived from management of BGBD

Outcome 2a: Inventory and evaluation of BGBD in benchmark sites representing a range of globally significant ecosystems and land uses.

62. The project has provided the following main results on the inventory and evaluation of BGBD in benchmark sites:

63. A great number of books and scientific papers published describing previously unknown below ground ecosystems, natural habitats and soil biota of 14 benchmark sites in globally important tropical areas, such as Amazonia, tropical forests of Mexican Gulf coast, Himalayas and others.

64. Records on different soil biota groups [these concern results on inventory on macrofauna and the specific groups pertaining to the macrofauna (earthworms, ants, termites and beetles), mesofauna (acari and collembolan), nematodes, microsymbionts (the nitrogen fixing bacteria and arbuscular mycorrhizal fungi) and phyto parasitic fungi and their antagonists] added to existing databases, including new species discovered, presence of extremely rare species confirmed, taxonomic revisions of particular species, etc.

65. Collection of different soil biota groups prepared and stored in museums and universities, and used for exhibitions, educational and scientific purposes.

Outcome 2b. A global information exchange network for BGBD developed.

66. Databases and information systems were installed in partner countries and accessed nationally and internationally.

67. Nevertheless, the project web-site is poor, and the links to the national web-sites have not been updated since project completion, although some national web-sites (Kenya, Brazil and Mexico) are active and functional. The information about similar web-sites in other countries is unavailable since links to them provided at the global web-site are not operational[10].

68. A Global Data base has been announced as a project achievement, but at the time of this evaluation it was clear that it should be considered as a project shortcoming. The database site promised to be established and managed by TSBF on behalf of the consortium (TSBF has guaranteed the sustainability of the database after the projects) is weak and almost useless for scientific and decision making purposes. The possible risk of this was pointed out even in the GEFSEC and IAS comments in 1998. TSBF promised to maintain this Database after project completion but this did not happen. To be fair it should be noted that the global BGBD database was completed during the project, however due to reorganization of TSBF and some structural changes in CIAT HQ, the database has not been integrated into the CIAT portal so far.

69. Some countries are developing their own data bases with varying levels of success (e.g. from simple Excel files in Kenya to impressive soil biota section in overall national biodiversity data base in Mexico, where Lavras University BGBD data base is used for follow up scientific studies in Amazonia, Systema Braziliero de Biodiversidade, and others).

[10] After completion of the evaluation report the new information from the Project Global Coordinator was received about plans to finalize the final technical report and make this available at the WEB site.

70. The project made a big contribution to the UNCBD International Initiative for the Conservation and Sustainable Use of Soil Biodiversity (UNEP/CBD/SBSTTA/10/14), which is actively supported by FAO AGP (Plant Production and Protection Division) framework[11]. GSBI (Global Soil Biodiversity Initiative) launched in 2011 can also be considered as an indirect result/impact of the project. The main focus of GSBI is very close to the intended outcomes of the BGBD project, and includes such key areas as to "Standardize Methods and Data Synthesis for Global Scale Analysis" of soil biodiversity, "Manage Soil Biodiversity for Delivering Ecosystem Services", and "Inform Policy on Soil Biodiversity and Ecosystem Services" [12].

Outcome 3. Sustainable and replicable management practices for BGBD conservation identified and implemented in pilot demonstration sites in representative tropical forest landscapes in seven countries

71. A number of experiments at the project sites have been undertaken to reveal and demonstrate the most effective practices in sustainable management of BGBD, mainly related to tropical agriculture, such as options for nutrient cycling and enhancing nutrient uptake, the control of soil borne pests and diseases, improving soil structure and hydrological function, improved organic matter management and effects of different systems on soil quality aspects. More than 50 scientific papers had been published on this issue by the end of the project and still, publishing continues.

72. Besides demonstration, quite a number of experiments were also carried out to investigate the effect of management options on the soil biota and soil quality, or how they affect soil biota related processes like respiration, nitrification and Nitrogen leaching, enzyme activity and other. These experiments provided a good understanding of the possible workings of these different management options rather than promoting these options and expecting that these will be accepted by farmers directly. In cases with demonstration of integrated pest management practices and mycorhiza and rhizobia inoculations, uptake of the technologies by the farmers was noticed even before the project ended.

73. A number of training events for local farmers in in the form of field days, stakeholders meetings and others have been provided with the help of local NGOs to promote management practices for BGBD conservation.

74. In some countries, even successful experiments have not led to the adoption and wide replication of these technologies by farmers. For example, in Brazil the project has mainly concentrated activities on studies and scientific experiments and not on practical application.

75. Furthermore, the replicability of effective practices is not evident in most of the countries visited. For example, in Mexico closer to the project end and without technical support, farmers who were enthusiastic at the start of the project decreased their activity and step by step returned to traditional land use practices. The main reason was the lack of market incentives to apply innovative biotechnologies, even though these biotechnologies were effective for BGBD conservation purposes. In Brazil, the coordination between universities and EMBRAPA (The Brazilian Agricultural Research Corporation) was limited just to soil survey, but could have been more effective in terms of practical applications given the fact that EMBRAPA's mission is to provide feasible solutions for the sustainable development of Brazilian agribusiness through knowledge and technology generation and transfer.

76. In Kenya, on the contrary, the practical application of biotechnologies has been poorly adopted throughout the project, but by the time of evaluation the project impact in this case was very high, because since 2007-2008 the business companies (such as Finlays/Dudutech and MEA) were involved in the development of innovative biotechnologies through production of biofertilizers and plant protection means, and with the help of national extension services the application of locally produced mycorhiza and rhizobia increased several times and even affected other countries through the export of these products and knowledge.

Outcome 4. Recommendations of alternative land use practices and an advisory support system for policies that will enhance the conservation of BGBD.

77. The project's findings and recommendations were widely presented at different events at global and national levels (conferences, international days of biodiversity and soils, etc.), as well as

[11] http://www.fao.org/agriculture/crops/core-themes/theme/spi/soil-biodiversity/initiatives/en/
[12] http://www.globalsoilbiodiversity.org,
http://www.globalsoilbiodiversity.org/sites/default/files/WhitePaper_London2012.pdf

CBD technical workshops and COPs. The project also has launched a number of different activities to support BGBD conservation and alternative land use practices from the grassroots level to the level of national and international policy makers, such as: series of papers published, trainings for farmers on sustainable land use and land management with specific attention to soil biota functionality, policy briefs on BGBD in relation to natural resources presented to governmental officials, establishing links to national media, etc.

78. The project activities added value to the development of integrated soil fertility management practices, integrated pest management in agriculture and forestry, and organic farming approach in the partner countries and proved the competitiveness of such approaches with "chemical" farming.

79. On the other hand, the evaluation found that the target of an advisory support system for policies was a bit ambitious because of the diversity in social, economic, education and scientific backgrounds in all of the participating countries.

80. For example in Mexico, where the national decision support informational system called CONABIO (National commission on conservation and management of biodiversity) was technically and institutionally ready to open a window for BGBD data, (even more prepared than Brazil, a country with deep scientific traditions and knowledge in soil biodiversity), the institutional barriers did not allow for the creation of something similar in this direction. Nevertheless, an interesting example was noticed in Kenya, where with the support from CBD and GEF focal point, the "Draft Policy on BGBD in Kenya" has been prepared by Ministry of Agriculture and Ministry of Environment for parliament hearings. In Uganda the project team issued a number of policy briefs on BGBD in relation to natural resources, BGBD and capacity building, BGBD and invasive species and BGBD in relation to sustainable agricultural development. The indirect impact was the establishment of the Soil Institute, which will maintain the follow-up activities.

81. The system of Extension Service in Kenya has adopted the elements of BGBD conservation and management practices to be used at the local level and to support farmers in using bio-fertilisers and competitive methods of conservation land use. In Mexico, the absence of such governmental support service (closed in 70-80s) hampers the effective promotion of such biological methods at farmer level.

82. Nevertheless, the information about technologies tested and developed in the project is not widely available in general except at project sites, within partner countries and the scientific community. The project did not make effective attempts to disseminate this knowledge with existing global web instruments[13], such as WOCAT.

83. Studies on the effectiveness of the concept of payments for ecosystem services (PES) were also supported by the project, e.g. in Mexico it was discovered that the experiment in biosphere reserve in Los Tuxtlas has shown that 300 pesos (~USD25) per hectare is a very small amount of money to encourage farmers not to apply less friendly traditional technologies and shifting to biotechnologies (an attempt to apply the PES approach). On the other hand, people are ready to consider this input to develop some innovative agricultural biotechnologies which maintain ecosystem services indirectly. In Brazil there were also start-up activities on PES, with results expected in the near future.

84. Fragmentary economic analyses have been undertaken in several countries that showed the economic advantages of innovative biotechnology applications (e.g. 20% increased income with application of rhizobium in Mexico).

Outcome 5. Improved capacity of all relevant institutions and stakeholders to implement conservation and management of BGBD in a sustainable and efficient manner.

85. According to the information collected during this evaluation, the results around this topic can be considered as the most successful with impressive and comprehensive scientific results gained within components 1 and 2a. Actually, the results of this component will support the project's long-term impact in different directions at least for several years (see section "Effectiveness").

86. Formal results of this component at different levels are the following:

– 8 international training courses conducted on different BGBD conservation and management topics – from soil biota groups taxonomy to global data analysis and economic evaluation of BGBD

[13] For example, WOCAT: https://www.wocat.net/

- 134 students received degree training during the course of the project. This includes first degree training, MSc and PhD students. This process is still on going
- 14 demonstration benchmark sites established and operational for further scientific and training activities
- 11 of local NGOs and more than 200[14] rural households directly involved in the BGBD conservation and management practices
- Popularization of BGBD conservation and management practices through publication and dissemination of picture stories, cartoons and role-playing games

87. Informal results evident via meetings and discussions with policy makers in Kenya and Brazil (and also confirmed by the interviews with project team members in different countries) show their growing understanding of the role of soil biodiversity functions and importance in keeping land use and soil resources sustainable and productive, and also as a source of new effective and safe agricultural technologies.

88. The overall rating on delivery of activities and outputs is **S (satisfactory).**

A 2. Relevance

89. All participating countries with significant expertise in soil biology have tropical forests, representing a wide range of types (humid to sub-humid, lowland and mountainous). Several of the participating countries have globally important "mega-diversity" areas. These sites are currently under pressure for land conversion and agricultural intensification. At all sites, the interest of stakeholders from government agencies to NGOs and farmers has been established in support of the project.

90. National Governments in the participating countries in this project have all ratified the CBD. Agricultural development policies in all countries have also been established to promote land use/management practices that are sustainable and productive, while simultaneously conserving the environment.

91. The project at the time of its design and implementation was consistent with the Nairobi Declaration on the UNEP Role and Mandate, and several functional divisions and Malmo Ministerial Declaration. In addition to what has been noted in the "Milestones in Design…" section, at the time of the project preparation, the importance of the conservation and sustainable use of biodiversity important to agriculture had been increasingly recognized and had been detailed in the decisions adopted by the Conference of the Parties (COP 4) to the CBD. By the end of the project it was still relevant to all of the redefined cross-linked five primary roles and consistent mainly with UNEP's sub-programme on "Ecosystems Management"..

92. Key project activities were consistent with GEF Biodiversity FA, BD-2 Strategic Priority (Mainstreaming biodiversity in production landscapes and sectors), OP 3 and OP 13. In doing so, the project was designed to: a) develop internationally accepted standard methods for characterizing and evaluating below-ground biodiversity; b) demonstrate sustainable and replicable management practices for BGBD conservation, which is consistent with the objectives and priorities of the GEF OP#13, biological diversity important for sustainable use of agro-ecosystems with regard to the list of Annex 1 of the CBD; c) support the objectives of GEF OP#3 on conservation and sustainable use of biological diversity in environmentally vulnerable areas; d) build capacity of partner country scientists to carry out research in soil biodiversity all integrated with ecosystem and agro-biodiversity benefits to their local communities and for global benefits; e) explore means of contributing to policy frameworks in the partner countries.

93. Therefore, it can be concluded, that the project implementation strategies, goals and objectives were consistent with: i) Sub-regional environmental issues and needs; ii) the UNEP mandate and policies at the time of design and implementation; and iii) the relevant GEF focal areas, strategic priorities and operational programme(s)

94. The overall rating on relevance is **HS (highly satisfactory)**

[14] This figure is very preliminary. To expert assessment it is the minimum number of those who accepted the biotechnologies. In the case of those also involved in the assistance of field researches the number grows up to 500.

A 3. Effectiveness

95. The evaluation finds that this project has no negative results.

96. However, it is not easy to assess the effectiveness of this comprehensive and complicated project even by following the project logframe. As noted in Part 1 (section "Objectives), the project has slightly different formulations of its overall objective, development objective (goal) and intermediate objective (purpose). In the final technical report, activities were mixed with outputs (performance indicators) and formally did not correspond to all project indicators, neither were there any formal links traced between activities/outputs and results/outcomes in this document.

97. The detailed assessment (see Annex 11) of the project anticipated results shows a number of discrepancies between intended outputs/performance indicators and actual effects. Formal evaluation shows that at least one third of the project outputs can be considered as not having reached the intended target, especially if partner countries are assessed from a uniform base.

98. It is obvious that during project design, it was impossible to plan overall project outcomes and outputs separately in different countries, taking into account their social, cultural and economic peculiarities as well as different scientific and educational backgrounds.

99. Nevertheless, at the stage of mid-term evaluation there were possibilities to clarify priorities of different countries and to set more national-specific goals based on the results of Tranche I. This could have made project interventions more effective in terms of country needs (for example, to concentrate the project where it was more effective on scientific and knowledge management, decision support, public awareness or practical application issues). As it had not been done at global level at that stage, the national teams continued to implement their country programmes based on their own country needs, keeping the overall goal of the project in mind. The Global coordinator's office did not limit national teams in their planning activities and gave them as much flexibility and freedom as they needed.

100. The result was the variability of the project's successful results and approaches in different countries, which sometimes are even hard to compare. On the one hand, it decreased the possible strength of the general results of project at the global level, but on the other hand, this helped to discover a diversity of approaches to BGBD conservation and management, which is equally important to the global standardization of BGBD assessment and characterization issues.

101. There were some discrepancies noticed during evaluation on the project focuses between the project stakeholders. For example, if project teams in some countries the global coordinator considered the project to be mostly targeted on scientific studies and receiving new knowledge, then in other countries and also some members of advisory and steering committees considered the project should be more focused on practical applications, such as sustainable management of soil biodiversity through improvement of land use practices and soil fertility. It is important to say that these differences in opinions were not harmful to the project but even productive as they allowed disclosure of different sides of the project relevant to different countries.

102. The main scientific effect of the project is that the project revealed the complicated and comprehensive aspects of BGBD in tropics. New records[15] and even new species were discovered. The new understanding of the role of BGBD in ecosystem functions and services were described through the links between BGBD, soils, above ground biodiversity, land use, and biophysical components of ecosystems and their properties. Figuratively speaking, the project helped to start the assembly of a puzzle of soil biodiversity, its links to other components of ecosystems, and conservation and management issues. The whole picture is not drawn yet, there are still a number of gaps to be filled in future, but if at the beginning of the project it was just a knot of separate pieces of information, by the end of the project this knot became a structured pattern, and ways on how to fill gaps are definitely known. This is in and of itself a great project success.

103. One of the most effective project results in awareness raising with both immediate and long-term impacts was publication and dissemination of illustrated brochures explaining environmental and practical importance of soil biodiversity mainly for children. The approach to presenting scientific results in the form of cartoons was so successful that even policy makers in the countries consider these brochures the most informative. As we also noticed informally during the

[15] New records means findings of earlier known species in new habitats

evaluation, even the scientists who were the authors of these brochures are more proud of this result than of their scientific papers published in peer-reviewed journals.

104. The majority of the project partners, national policy makers and specialists noted the limited uptake of BGBD practical applications by farmers at local and national levels, despite extensive efforts and scientific support. This is also discussed in the "Sustainability" section. However, the ROtI analysis indicates a strong foundation has been laid for increased uptake and replication of the project outputs, but will depend on many contextual factors, including mainly the market and legal conditions.

105. The GEF focal point representative in Kenya is quoted as saying: "*We got from this project more than we had expected, at all levels from global to grassroots*". Benefits included new investments in agricultural industry, technology and knowledge transfer, improved skills of specialists, new specialists in agriculture and forestry, scientifically enlightened farmers and communities, strong support in solving gender issues in rural areas, etc. Direct biodiversity conservation and sustainable land management activities were less successful.

106. The successful Kenyan example on the enhancing application of biofertilizers by fertilizers producers has shown how science and technology can move "from labs to market". MEA and DUDUtech companies located in Kenya at present time not only cover the local market, but export biofertilizers to more than 10 countries, mainly in West Africa.

107. On the basis of independent interviews with different persons involved in the project, it is necessary to say that despite of the overall global success of the project in various anticipated outcomes and outputs, the achievements in individual partner countries were different and added value to the whole project success. In the table below we tried to make a quantitative efficiency rating of the project impact in individual countries. It is necessary to note that although it is a comparative list, it does not mean that any country was better or worse in the unofficial competition of the project results. The purpose of this comparison was to provide information on which achievements should be used as better examples for further dissemination and replications in follow-up activities related to BGBD issue.

Country	**Science and experiments**	**Knowledge management and decision support**	**Practical applications: technologies and sustainable land management**
Brazil	*****	****	***
Mexico	****	***	****
India	***	***	***
Indonesia	**	*	**
Kenya	***	****	*****
Uganda	*	**	***
Cote d'Ivoire	**	**	*

108. Frankly this expert rating is very rough, because not all aspects have been taken into account precisely. For example, here it is not reflected that India and Indonesia were strong in both science and in economic evaluations, and Mexico – in social aspects, not only in BGBD. Knowledge management in Kenya was strong in public awareness, and in Brazil mostly in universities through teaching students. Cote d'Ivore was strong with NGOs involvement, etc. Some project impacts, such as establishing a Soil Institute in Uganda, will display its effectiveness later on. Anyway, the table in general presents the gross level of countries' achievements

109. The overall rating on effectiveness is **S (satisfactory)**

A 4. Efficiency

Cost-effectiveness

110. All persons interviewed stated that project funds were delivered as promised. All persons interviewed claimed that the administration of funds was effected in a transparent manner. National level team managers and members praised the project's administration of this project for

exceptional efficiency and transparency. There were no issues raised about inefficiencies in the management of the financial resources of the project.

111. The evaluator found that the project was handled efficiently and well. The financing at global level was organized through experienced TSBF-CIAT, and at national level also through experienced departments in universities or scientific institutes, which had prior experience in other international projects and good knowledge in organizing bidding procedures and contracting project partners.

112. The global management team and national teams at their level attempted to minimize possible disruptions by seeking and securing funding from other sources that would support all the activities after Tranche I funding ceased and before Tranche II funding was opened. All disbursement and reallocation of savings were in time, effective and transparent.

113. The project was cost effective and managed to leverage additional co-financing (see "Cofinancing" section). The final amount of co-financing amounted to more than USD 11.5 million, which was more than 56% of the total project budget (excluding PDF stage). The most effective co-financing has been achieved in Brazil, India, Kenya and Mexico.

114. The cost-effectiveness of the project activities varied in partner countries as a result of the different initial skills and competencies. e.g., project results achieved in the project timeline in Brazil and India were higher even if the project sites were remote and the GEF budget allocations to national subcomponents were equal.

Timeliness

115. The project consisted of two phases. The first (Tranche 1) officially run from August 2002 to June 2005, and the second from April 2006 to July 2010. Generally the project was implemented according to the timelines agreed upon in the Steering Committee meeting for the upcoming year. There were some delays in the beginning of the project due to seasonal circumstances (cropping) and unpredictable adverse conditions (such as drought and plant diseases) that required additional trials in the field activities. The delay between the two tranches was mainly caused by funding problems (change of procedures for approval and funding of Phased/Tranched projects). These delays were discussed at the project steering committee meetings and a no-cost extension was agreed with the implementing agency (UNEP). The project was completed in July 2010.

116. The project delays did not adversely affect the overall project results. Moreover, considering the virtual nature of the project during the breaks between the two phases and no-cost extension at the project end, the delays were managed quite well. However, in the opinion of a few project stakeholders interviewed, the delay in the approval of the second tranche was rather disruptive in that the activities were interrupted, even though the project team took advantage of the pause to follow through some changes in the organisation of the project that were considered necessary.

117. The overall rating on efficiency is **highly satisfactory (HS)** in view of cost efficiency, and efforts in leveraging not only financial resources but also existing expertise, partner knowledge, networks and global events.

A 5. Other Results

118. To have a whole picture of the project results it is necessary to underline those which are beyond the project logframe, but have emerging long-term effects, indirect outcomes and impacts.

119. The main project results at global level are as follows:

- The hypothesis was proved on the examples of project benchmark sites that, by appropriate management of above- and below-ground biota, optimal conservation of biodiversity for national and global benefits can be achieved in mosaics of land-uses at differing intensities of management, and furthermore results in simultaneous gains in sustainable agricultural production.
- The project has filled the knowledge gap about BGBD, especially in tropics, and in particular in a few globally biodiversity important areas.
- The discovery of new species, actualization of soil biota and soil survey in remote globally important areas.
- Development of the concept of soil and soil biota functions in biosphere and human life, and indicating capacities including links to global environmental issues (such as climate change, above ground and agricultural biodiversity conservation, land degradation and sustainable land management (soil quality and health), food security, public health, water resources, etc)

- Developed understanding of interrelations between different groups of soil organisms and above-ground biodiversity and ecosystem functions.
- Start-up internationalization of educational programmes on BGBD issue.
- Development and improvement of links between scientists from different countries, including those established through annual meetings and trainings.
- Development of a network for international collaboration on BGBD conservation.
- Provision of assets (labs, cars, computers) and methods for systematic inventory of BGBD in the project benchmark areas
- Globally important collections of different groups of soil biota and banks of germoplasm created or enhanced
- Influence on international agreements and initiatives (CBD, Global Soil Partnership (FAO), Global Soil Biodiversity Initiative)
- Growing role of Kenya as a country of heightened global interest and UNEP demonstration site of global importance..

120. Basic project results at national and local levels included:

- The project played a catalytic role for national and regional initiatives related to biodiversity conservation and land use..
- Cooperation between different stakeholders was improved (science, universities, national and local authorities, local people, business)
- Cooperation between different scientists and specialists (biologists, soil scientists, economists, sociologists, agronomists, etc) was improved.
- Knowledge and skills of local farmers were enhanced.

A 6. Review of outcomes towards impacts

121. In the final technical report it was underlined that some of the project targets could not be met given the research focus of the project. The project would need a model for theory of change and model for the engagement of development partners to set realistic targets. Farmers were very willing to learn, but lack of knowledge and skills in BGBD conservation and management presented severe constraints that would have required a more structured approach that was not within the scope of the project.

122. The diagram below (provided and described also in Annex 6) illustrates the Theory of Change (ToC) towards overall impact for the project. The model was presented in the Inception report and discussed with the former Project Global Coordinator and National Coordinators in Kenya, Mexico and Brazil during field mission. Recommendations from their perspectives have been taken into consideration in the final ToC diagram.

123. The process of identifying the project's intended impacts and review of the project logframe are briefly explained below.

124. Analysis of the project's overall strategy, main objective and logframe, MTE, and project implementation reports since 2007 to 2011 allows us to conclude that actually the project has pursued two main cross-linked globally important environmental goals: biodiversity conservation and preventing land degradation through sustainable management approaches. Despite the fact that land productivity and land degradation issues were not directly addressed in the project documents it was evident during field evaluation that actually they served as both driving forces and incentives to study the practical application of scientific knowledge on BGBD in agriculture and forestry. Therefore these two main environmental goals closely connected within the project strategy can be considered as mutually complementary items, which if realised, would provide a win-win situation where gains are achieved not only in biodiversity but also in agricultural production and resource conservation. To that extent, they both serve as impact drivers to each other and/or project impacts. Sustainable agricultural practices applied by farmers in the project affected sites and enhanced knowledge management in BGBD conservation and management are considered to be corresponding socio-economic and capacity building impacts of the project.

125. The analysis of the project documents and field evaluation mission made it possible to conclude that the project to different extents was intended to have overall impact in four main spheres:

- Environmental Benefits: BGBD to be conserved and sustainably managed in globally significant forest and agro- ecosystems in seven tropical countries
- Reduced Environmental Threats: Reduced and prevented land degradation as a threat to biodiversity
- Sustainable development and improving people livelihoods: Sustainable agricultural production

- Knowledge management and Capacity building: Enhanced knowledge and understanding of BGBD

126. These spheres are reflected in the ToC graph as four basic lines from Strategies to Impact with Outcomes and Intermediate results strung together on these interlinked lines.

127. The Project's Logical Framework (LF) matrix provides enough basic information to track the impacts pathway and build ToC graph. The LF (updated in Tranche II) contains intervention logic through Development Objective, Purpose, and Outcomes. The project's Outcomes were at the same time formulated as project Components to be implemented through related Activities with reference to relevant Performance Indicators, Verification Means, and Risk and Assumptions. The overall logic of the project looks like a chain of outcomes, whereby those outcomes achieved in the first stages are considered as impact drivers and necessary conditions for the others down the line to be realized. This is evident from the project MTE and PIRs, which show that during first tranche of the project the funds were invested mainly in Components/Outcomes 1 and 2 to provide capacities for next projects stages planned for the second tranche.

Theory of Change

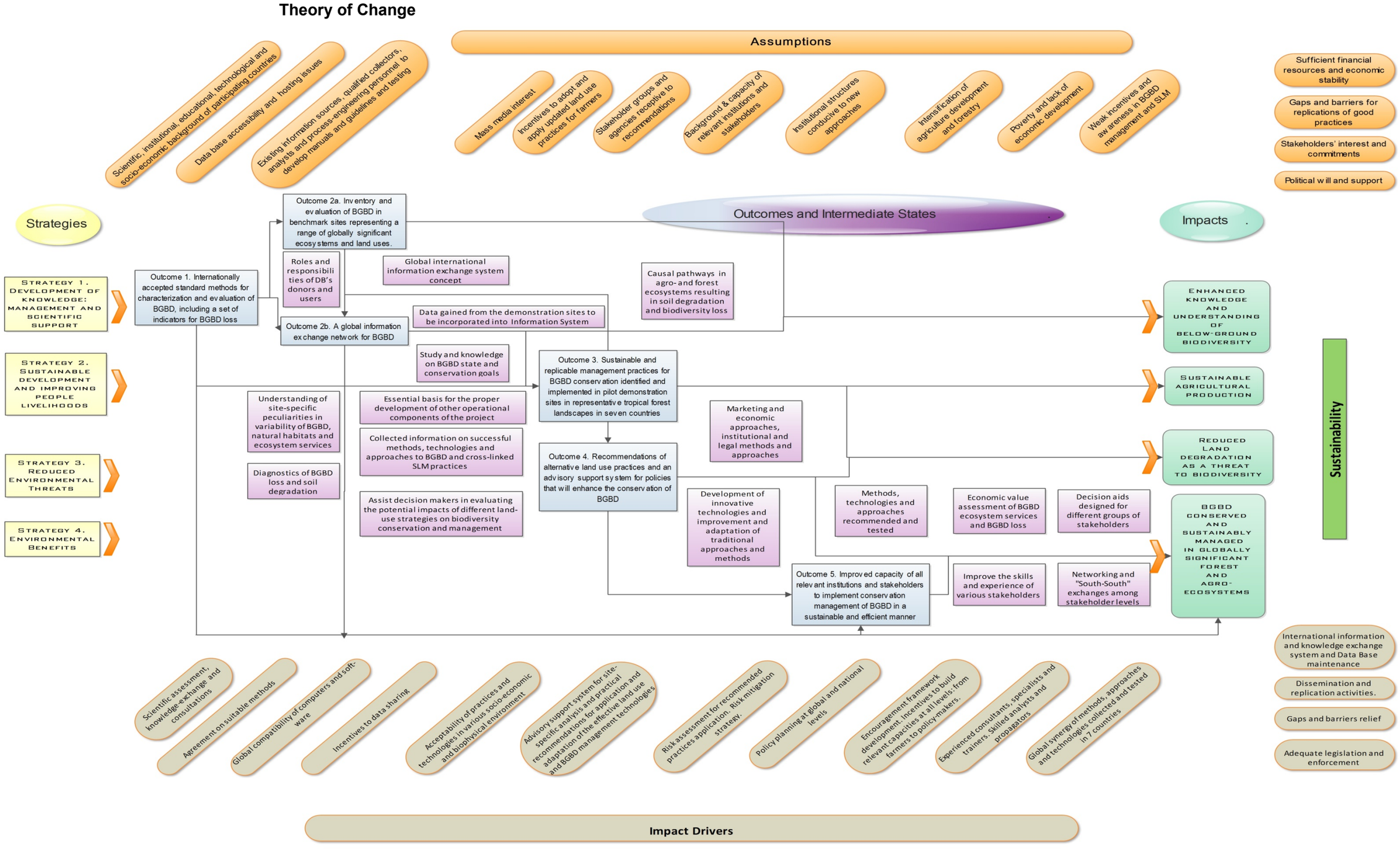

Table 2. Results rating of project

		Rating		Rating		Rating (+)	Overall
Outputs	**Outcomes**		**Intermediary**		**Impact (GEBs)**		
1.1.Methodologies for characterizing BGBD selected, standardized and tested in all the countries participating in the project. 1.2.Key indicator (s) of BGBD loss identified and tested 1.3.Methods for evaluating the economic (and livelihood) benefits of BGBD for stakeholders (at local, national and global scales) developed	1. Internationally accepted standard methods for characterization and evaluation of BGBD, including a set of indicators for BGBD loss	**C**	1. New knowledge and research results: - Study and knowledge on BGBD state - Diagnostics of BGBD loss and soil degradation - Understanding of site-specific peculiarities in variability of BGBD and natural habitats - Essential basis for the proper development of other operational components of the project	**A**	1. BGBD to be conserved and sustainably managed in globally significant forest and agro-ecosystems in seven tropical countries	N A	**CA**
2.1. Land-use mapping of benchmark areas carried out. 2.2. Agreed methods for BGBD characterization for a full range of land-use intensities agreed upon and applied. 2.3. Ecosystem health in Benchmark area in relation to BGBD evaluated. 2.4. International information exchange network developed.	2. Inventory and evaluation of BGBD in benchmark sites representing a range of globally significant ecosystems and land uses A global information exchange network for BGBD.		2. New knowledge and research results: - Study and knowledge on BGBD conservation goals: what ecosystem services are used, what organisms serve for that and how - Causal pathways (chains of causes and sequences) in agro and forest ecosystems resulting in soil degradation and biodiversity loss (types of land use, technologies in forestry and agriculture, social, market, economic and political causes and relevant impact - Understanding of site-specific peculiarities in BGBD ecosystem services Global international information exchange system concept. Roles and responsibilities of DB's donors and users. Assist decision makers in evaluating the potential impacts of different land-use strategies on biodiversity conservation and management Enhancement of the capacity to undertake agrobiodiversity-related research in and beyond the participating countries		2. Reduced Land degradation as a threat to biodiversity		

3.1. Characterize farm and land management practices 3.2. Management practices for BGBD conservation selected and evaluated 3.3. BGBD management and conservation practices implemented in pilot demonstration sites. 3.4. Environmental benefits of BGBD conservation and SLM evaluated and valued.	3. Sustainable and replicable management practices for BGBD conservation identified and implemented in pilot demonstration sites in representative tropical forest landscapes in seven countries		3. Collected information on successful methods, technologies and approaches to BGBD and cross-linked SLM practices Providing basis for the development of recommendations for sustainable alternative land use practices which simultaneously conserve BGBD and incorporate priorities of the local stakeholders Data incorporated into the International Information System (data base) to be used to mainstream the knowledge gained from the demonstration sites beyond the benchmark areas and participating countries		3. Sustainable agricultural production		
4.1. Scenario analyses and policy evaluation for conservation of BGBD initiated. 4.2. Alternative strategies for BGBD conservation and sustainable land-use management negotiated. 4.3. Actions and policies at local and national levels proposed.	4. Recommendations of alternative land use practices and an advisory support system for policies that will enhance the conservation of BGBD		4. Methods, technologies and approaches recommended and tested in 7 countries to support and rehabilitate BGBD and linked soil properties important for soil fertility and practical use (soil resources), and ecosystem services (GHG emissions, carbon sequestration, fresh water supply, etc): development of innovative technologies and improvement and adaptation of traditional approaches and methods,		4. Enhanced knowledge and understanding of below-ground biological diversity		
5.1. Capacity enhanced in disciplines identified as lacking in countries participating in the project. 5.2. Awareness and knowledge of BGBD and its functions among stakeholders from farmers to national planners and international community enhanced.	5. Improved capacity of all relevant institutions and stakeholders to implement conservation management of BGBD in a sustainable and efficient manner.		5. Economic value assessment of BGBD ecosystem services and BGBD loss Costs of soil and BGBD rehabilitation and maintenance by different methods and technologies Decision aids designed for different groups of stakeholders Substantial implications for planning at scales above (i.e. national) and below (i.e. district and village); these implications and concerns built into the dialogue from the outset Improve the skills and experience of various stakeholders Networking and "South-South" exchanges among stakeholder levels				

128. The insight of this logic acted as a background to the structure of the project ToC diagram. The structure is not simple, because the results of each Outcome/Component add value and serve as Intermediate Stages not only to the overall Project Impacts, but to the next Outcome/Component as well. Therefore the project "strategies" and relevant impacts are not equal in terms of dependence from its outcomes. For example, development of knowledge depends on outcomes 1 and 2, but successful achievement of environmental benefits needs results achieved through all outcomes and intermediate stages.

129. Evaluation of impact pathways in different partner countries shows that the progress along different strategic lines varies in different countries, but serves as adding values to the whole project synergy and success (see "Effectiveness" section). The final technical report also shows the overall successful story with the project outputs which had 100% achievement in the implementation status with the exception of output 4.2. "Alternative strategies…" fulfilled by 80% (cited from last PIR).

130. The ratings for outcomes, progress towards 'intermediate states', and Impact can therefore be defined as following (see table 2 above and more detailed explanation in Annex 6)

- *Outcome Rating:* **C:** The project's intended outcomes were delivered, but were not designed to feed into a continuing process after project funding.
- *Rating on progress toward Intermediate States*: **A:** The measures designed to move towards intermediate states have started and have produced results, which clearly indicate that they can progress towards the intended long term impact.
- *Impact:* There are no achieved documented changes in environmental status during the project's lifetime

131. Accordingly, the likelihood of impact achievement is CA which is translated as **Highly Likely.**

B. Sustainability and catalytic role

B1. Sustainability

132. The sustainability issue has been addressed in the title of the project and its objectives, therefore project results on sustainability target should be quite clear. Nevertheless, during project design the sustainability assurance was not strong enough despite identification of the majority of risks and assumptions. The project aimed at promoting the recognition of the importance of BGBD by stakeholders through investment in a number of activities (institutional infrastructure, Web-site, economic benefits assessment, support and replication of good practices, stakeholder awareness and capacity building, and even policy support). However, it was not evident that all project outcomes would be widely supported and up-scaled after project end at different levels: local, regional, national, and global. The main risks identified included weak political will, low experience, knowledge and skills in successful BGBD management at all levels, and stakeholder commitments.

133. It is difficult to evaluate the overall project sustainability as it differs in relation to the different project spheres: the most successful aspect - scientific development and knowledge management - also seems to be the most sustainable, and the less successful practical applications are at the same time less sustainable in most cases. The BGBD data base in Mexico can be considered as one of the few successful and sustainable practical examples in the project; however, at the global level it is unsustainable. On the contrary, the lilies bulbs production technology in Mexico was not as sustainable as it had seemed at the beginning of the project. The production of biofertilisers in Kenya has grown tremendously, although it was not intended to be that way at the start of the project. Another example is the large number of students trained in Brazil as a result of scholarship support from the national government, which was not in the case Uganda for instance.

Socio-political sustainability

134. The political context was unstable in some countries involved but predictable and so was not a threat to project implementation and the sustainability of results. On the other hand, the level of ownership by the main national and regional stakeholders does not seem sufficient to allow

for the project results to be sustained. There is no evidence found (except very few examples, such as the "Draft Policy on BGBD in Kenya"[16] or CONABIO national data base on biodiversity with a section of BGBD in Mexico[17]) that regional or national governments are interested in supporting the project initiatives, although their representatives took part in different conferences and meetings organized by the project.

135. In the final technical report it was also stated that "The project has not developed a clear exit strategy in the sense that outcomes of the project are taken on board by the CBD, the MDG or the CGIAR for example. Probably more attention should have been devoted to establishing links with these international bodies and advocacy organisations, making use of existing structures and embedding the project in existing initiatives like the Soil Biodiversity Initiative".

136. At the project preparation and initial stages, no incentives to stakeholders, which could have been the main impact drivers, were identified to maintain project results. In the evaluator's opinion, this is a project shortcoming as it did not develop adequate methods/initiatives to maintain project outcomes and follow-up replication and dissemination activities. Such activities should be supported by regional and national policy makers, through legislation, enforcement, and planning

137. Country ownership is also difficult as some countries do not have the institutions that deal with BGBD or even with soil (biological) quality and because it is not clear what benefits can be expected from devoting specific attention to this topic. Building these institutions will be important if global benefits from more judicious use of soil biological resources are to be achieved.

138. The project did not provide socio-political incentives to scale-up successful approaches and technologies, thus decreasing the sustainability of its results and progress towards anticipated impacts in BGBD management, including environmental benefits, reduced environmental threats and sustainable agricultural production. The project activities were concentrated mainly in Universities and scientific institutes. These institutions could (and will) sustain only the knowledge management and (partly) the capacity building impacts.

139. The evaluation of Socio-political sustainability is **Moderately unlikely (MU):** there are significant risks that affect this dimension of sustainability.

Financial resources.

140. The project did not develop any strategy for financial sustenance of its results. There is evidence that the lack of financial resources seriously jeopardizes sustenance of project results and onward progress towards impact. For example, at the time of this evaluation there were no resources in TSBF to update and support the project web-site which was intended to be an international hub on BGBD issues. In India and Mexico, farmers adopted land use practices that favour beneficial soil biota, but they are not fully satisfied and demand further financing for support and improvement. In Uganda graduate training is still needed to support soil biota inventory, etc.

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[16] In Kenya the project managed to initiate the "Draft Policy on BGBD in Kenya" prepared by Ministry of Agriculture and Ministry of Environment. It is unlikely that this policy will ever be adopted, however the process around these hearings raises awareness and interest to the topic in terms of soil biota assessment, identification and sustainable use, evaluation of related threats and risks, raising awareness, sustainable land management and diversity of ecosystems. This process together with extension services supported by government and business sector has already upscaled high demands for biological farming in Kenya.

[17] Also in Mexico the socio-economic study undertaken in the project sites during the last years of the project discovered the growing interest of local population to soil biodiversity knowledge and management, not only in communities passed through trainings, but also in neighboring villages. This study also traced a number of necessary activities to support and maintain these incentives, but a gap between grassroots incentives and top-down readiness to support that is still big. However, on the grassroots level, due to the project interventions in local trainings, the share of households ready to pay for and apply conservation biotechnologies is growing, and there is still high demand even after the project end.

141. However there are a number of projects in different countries which are based completely or partly on the results of the BGBD project and are supporting national project team members and development of the project results (see the "Replication" section below). An outstanding example of the financial sustainability of the project results has been received from Kenya, where a direct link has been established between a university and a fertilizer company which supports through royalties the on-going research in the university, and also helps the company to train and get qualified specialists graduating from the university.

142. The evaluation of financial sustainability is **Moderately likely (ML):** there are moderate risks that affect this dimension of sustainability

Institutional framework.

143. Hosting the project within universities and academic institutes is more likely to provide more sustainability to the project results than if hosted in any governmental centre (like Project Management Unit or Project Implementation Unit), because universities are interested in long-term application of the project results (at least in educational programmes, courses and scholarships). Research institutes also have the ability to promote project approaches and ideas. Research institutes and universities are still providing unofficial, so called "silent" in-kind support to the project for example: energy supply, security, lab equipment, storage of collections, qualified personnel, etc.[18]. Also, universities have an informal influence on governmental policies through participation in expert and advisory groups and committees, outreach programmes, etc.

144. The project has stressed the general importance of soil health and soil ecosystem function in increasing agricultural production in a sustainable manner as an alternative to fertilizer-only options, and presented this view in the various fora. Different training activities and short-term courses provided by the project to students, scientists and NGOs also add to institutional sustainability in the long-term.

145. The most ramified institutional network supporting project results appears in Kenya and includes the University as a knowledge exchange hub and educational and scientific centre, museums as public awareness and collection centres, and NGOs, which are strong on the local level working with farmers and undertaking training. Others include governmental agricultural exchange services in each country administrative unit (district), and business companies, which also have their training departments and knowledge dissemination and public encouragement strategies (e.g. developing the scientific and practical business concept of "Active Soils", including not only long-term fertility, but also aspects of soil carbon storage and biodiversity management).

146. Institutional sustainability of the project results is also supported by national para-organisations created within the context of the project. For example, BiosBrazil scientific partnership (http://www.biosbrasil.ufla.br) served as a knowledge and information exchange hub, and also as an informal forum for scientific discussions and data sharing.

147. Despite these initiatives, the project in general was not in a position to negotiate alternative strategies, action plans or policy frameworks, regulations and rules to manage BGBD and ecosystem services. No other institutional initiatives except stakeholder workshops designed to attract the attention of regional and national authorities, and "various boards and committees" (cited from the final PIR) were undertaken either at global or national levels.

148. The project did not establish strong long-term links with big international NGOs working in the field of biodiversity conservation and land use, such as WWF, IUCN, and others, despite their representatives having been involved in the project framework to varying extents. With the

[18] There are examples of using project sites as campuses for further educational programmes, e.g. University of Amazonia uses the project site in Benjamin Constant. There are also examples from almost each partner country that the follow-up actions even after more than 2 years after project completion are still active, and there is evidence that the data collected within the project framework will be processed for at least 5 years more in different scientific reports, papers and student's and PhD works.

exception of Kenya, the project also has not kept in touch with businesses. In the evaluator's opinion, the national teams mainly located in universities and scientific institutes implicitly were not ready for such cooperation due to lack of management experience, and this resulted in a weak maintenance of the project perspective practical results.

149. The evaluation rating of institutional sustainability is **Likely (L):** there are no or negligible risks that affect this dimension of sustainability.

Environmental sustainability

150. The last PIR (FY-11) states that "Environmental benefits could ... not be expected given the complexities associated with linking environmental processes to the function of soil organisms or soil biodiversity. The project has contributed to the development of concepts on environmental and economic benefits... but we lack ... to predict effect of management practices on these soil biological characteristics".

151. A wide-scale adoption of sustainable land management practices was not the scope of this project, so environmental benefits in terms of conserved biodiversity, improved soil productivity, reduced erosion, reduced incidence of pest and disease, reduction in inorganic fertilizer use or sequestration of soil carbon, etc. have not been evaluated within the project even though they took place. Only very few of site-specific "good" land use and biodiversity management practices have been demonstrated and that cannot be considered as sufficient to further replication and dissemination.

152. Project sites are subject to more or less predictable disasters or changes, so, significant environmental factors were not anticipated, which can influence the future flow of project benefits, as well as any project outputs or higher level results.

153. The most dangerous environmental risk of the project results in the evaluator's opinion is connected with possible invasion of alien species by inoculants with biofertilisers. The public awareness of this risk is still very low, and many scientists are only just starting to understand that improper management of soil biodiversity could be a danger to public health, a source of diseases and risk to soil fertility. To prevent this risk the biofertilizers' producers and farmers should take into account the variety of habitats, biophysical conditions, plants, soil treatments and necessity to use locally adapted non-harmful inoculums. This is still far from reality, but, in Mexico for example, there is evidence of cooperation between scientists and business in this direction.

154. The evaluation of environmental sustainability is **Likely (L):** there are no or negligible risks that affect this dimension of sustainability.

155. Thus we assess the **overall project sustainability as moderately unlikely (MU)**, because overall rating for sustainability cannot be higher than the lowest rated dimension.

156. Based on the above analysis we would like to underline the following basic assumptions and impact drivers affecting project sustainability (see also diagram of the Theory of change, Annex 6): sufficient financial resources, understanding and elimination of gaps and barriers for replications and dissemination of good practices, stakeholders' interest and commitments, political will and support, adequate legislation and enforcement, international knowledge exchange and maintenance of global data base on BGBD.

B2. Catalytic Role and Replication

Catalytic Role

157. There is no doubt that the project is suitable for replication as it benefits important management practices in soil biodiversity conservation linked to sustainable land management in tropics. By sharing good practices and innovative approaches, the project team has attempted to sensitize stakeholders about the benefits that can accrue through biological methods in agriculture and forestry. Nevertheless, in the absence of a favourable environment, it is too early to discuss direct replication effects, as the project's broader outcomes are likely to take longer time to be achieved.

158. Document reviews and field assessment provided the evidence of a few replication activities and of the catalytic role played by the project:

- Scientific methods and approaches elaborated and tested in BGBD project are being applied to study similar processes and interactions between biota and soil within other

projects on agricultural activities, e.g. cotton and soya-bean growing in Brazil and Uganda, organic farming in India and Mexico, vermicomposting in Mexico and Uganda, coffee-based agroforestry systems, cover crop and conservation tillage systems in Indonesia, and others.

- Demonstrations and experiments done on farmer's fields, that have resulted, e.g. in early adoption of technologies to control fungal infection and rotting of the Lily bulbs that occurred in the Mexican benchmark site, in the use of rhizobium inoculation and increased acreage of soybean cultivated in the Ugandan benchmark area.
- Some commercial companies in Kenya are now packaging inoculums to address challenges of plant pests and diseases, nutrient uptake and fertility improvement. Three African countries were trained in inoculums production and are now producing and packaging their own inoculums for transferring the BGBD interventions to the field.
- Project countries have results on different BGBD intervention technologies, some of which will directly benefit farming systems through enhancing nutrient cycling, controlling pests and diseases, establishing trees and tree nurseries and supporting commercial production, all of which will directly benefit ecosystem services, crop production and environmental conservation through reduced use of mineral fertilizers and synthetic herbicides and pesticides.
- Lessons learnt in relation to the economic valuation of BGBD, possible interventions to enhance soil life and environmental benefits that can be obtained from it. Although these lessons have not been widely disseminated, but having been compiled and documented in the project scientific publications, they form the basis for recommendations to inform policy makers to further conservation and sustainable management of BGBD.
- Contribution to the awareness and capacity of farmers and other stakeholders on the management options for conservation of BGBD and improving soil biological quality through farmer field days, demonstration days, and farmer participatory monitoring and evaluation exercises.

159. Indirect catalytic effect has been provided also within the project by informal competition between national teams, knowledge exchange between and within countries that catalyzed new studies and research in universities, strengthening of related chairs and departments. Universities served and are still working as regional hubs of knowledge on BGBD. Also, informal scientific communities have been developed based on the work of national project teams, such as BIOSBrazil group.

160. The project was effective not only in leveraging funds but also in promoting partnership between specialists from different countries, through conferences and workshops, exchange of knowledge in innovative biodiversity and land management practices. One of the indirect results of the project was GSBI (Global Soil Biodiversity Initiative launched in 2011).

161. As it could be seen from the examples provided, the project has: catalyzed some *behavioural changes* in terms of use and application by the relevant stakeholders of technologies and approaches show-cased by the demonstration projects; provided *incentives* (mainly competencies) to contribute to catalyzing changes in stakeholder behaviour from grassroots to policy makers. To some extent this has contributed to *institutional changes* by mainstreaming of project-piloted approaches in the regional and national demonstration projects (see below "Replication" section; slightly contributed to *policy changes* (especially in Kenya and Mexico), created opportunities for national teams and lead universities and scientific institutes to catalyze change.

162. Despite of these activities and achievements, the project did not develop any specific strategy or framework for scaling up its activities and outcomes..

Replication

163. There is no obvious evidence of replication at the local level, but replicability of results is demonstrated through raised awareness on soil biota environmental and practical application even among neighbouring communities not covered by the project sites.

164. At the national and international levels, project replicability is evidenced by a number of different projects such as: CGIAR Commercial Products project (COMPRO) implemented by CIAT in 2009-2011, FAO-GEF 5-years project "Development of SFM and Support to REDD for Dryland Forests in Kenya" with total cost of more than USD 11 million, The "Biota East Africa" project - co-operation between German and African Institutions, INOLEG project on microbium inoculation in Brazil implemented in 2009-2011, and others (see Annex 12)

165. Although according GEF guidelines no ratings are requested for the project's catalytic role, to reflect this in the table requested by the TOR we can evaluate the overall project catalytic role as **Satisfactory (S).**

C. Processes affecting attainment of project results

C1. Preparation and Readiness

166. As per work already done for the Inception report on Quality of Project Design (see Annex 6), the overall assessment was **Moderately Satisfactory (MS)** based on clear objectives and pathways, project feasibility for implementation within the time frame, effective and efficient governance and implementation mechanisms and relevancy to other work. There were some concerns raised that the project timeframe and objectives were a bit ambitious, not all possible risks were properly identified, there were weaknesses in the arrangements to the project sustainability and there was sometimes nonconformity between intentions based on the baseline assessment and project performance indicators.

C2. Implementation Approach and Adaptive Management

167. The project governance was top-down, but very "democratic" and flexible. It means that the project did not issue any additional particular regulations on how to organize the project implementation and coordination process, M&E and adaptive management. National teams were flexible in selecting ways and methods to implement the project and this made it possible to take into account national peculiarities. For example, in Brazil the national team decided to study beetles and fruit fles, in Mexico and Brazil educational kits, cartoons and booklets were also issued, activities which were beneficial but not previously planned.

168. On the other hand, the members of the national project teams noticed that they could have more influence on the project strategy and project plans if they were more actively encouraged by the central project governance to present their feedback to the project's global authorities actively and on regular basis.

169. The project was meant to have a steering committee established, with membership constituted from representatives of the country executing agencies. However, as underlined in the MTE, this did not happen and by default the country component coordinators had a seat in the PSC, which in practice operated more like a project management unit. Not all units and committees specified in the project document really worked as intended in the original governance arrangements of the project. As a result of the MTE the project management structure was revised and Steering committee was established and functioned during Tranche II. Actually there were 4 annual meetings of Steering committee, which regularly reviewed the project strategy and provided recommendations for the improvement of the project timetable and priorities identification. Representatives from the Technical Advisory Group attended these meetings and also the technical workshops/meetings when needed.

170. At the national level the situation with the project governance differed in various countries. For example, in Mexico and Kenya, the national steering committees served as units to define country priorities and even as knowledge exchange hubs at the level of national policy makers, while in Brazil this was not workable, and actually the project priorities were discussed between main stakeholders involved (basically among heads of the working groups).

171. In any case, it is necessary to recognize that there were no big conflicts within project governance either at global or national levels, except some minor tensions on the authorship rights of scientific products, which were regulated, nevertheless, by the Global coordinator.

172. There was no specific adaptive management strategy and/or regulations in the project. All necessary corrections (adaptive measures) in the project management were made "on the job", according to procedures described in the project document and work plan.

173. In particular, annual Project Implementation Reviews (PIRs) served as a basic instrument for adaptive management and project monitoring tool as they contained assessment of the project implementation progress and action plan to address objectives that were rated as 'Moderately Satisfactory', 'Moderately Unsatisfactory', 'Unsatisfactory' or 'Highly Unsatisfactory' during the previous PIR. The action plan contained information of personal responsibility and timing to

solve problems identified in the previous PIR. In addition, the PIR had a section on risk assessment and top risk mitigation plan.

174. The rating on implementation approach and adaptive management is **(S) satisfactory.**

C3. Stakeholder Participation and Public Awareness

Engagement of Stakeholders

175. The Project Document identified and outlined the engagement of a wide range of target groups both in partner countries and at global level. A separate annex in the project document was devoted to public involvement, stakeholder identification and support, and linkages with other projects at benchmark sites.

176. At the global level the project helped to build a partnership between scientists of different specialities from biologists and soil scientists to economists and sociologists. The project also created a bridge between UNEP, and CGIAR and CBD, drawing IUCN and WWF attention to the global BGBD.

177. Given the scientific character of the project most of the partner institutions at national level consisted of universities and, to a lesser extent, national research institutes. The role of NGOs or CBO as well as private entities was less clear to the project management, so it was difficult to actively involve them in the implementation of the project on a regular basis.

178. Staff from universities and scientific institutes participated in the project based on personal interest and in individual capacity. It was therefore difficult to interest institutional representatives to take a place in governing bodies like the project steering committee (both at global and national level).

179. Nevertheless, it does not mean they were not involved in the project. Although countries differed in the extent to which stakeholders were involved in the project, there were a number of successful examples of coordination and joint work of different groups.

180. With the help of the national advisory / national steering committees, strong links have been established in some countries between academic institutions and businesses, universities and farmers, government representatives and research institutes, etc. For example, in Mexico, the Steering committee served not only as supervising body, but also helped to select project sites taking into account not only scientific but also security and socio-economic perspectives. Actually the committee also served as a “policy makers club” of knowledge exchange and dissemination.

181. Local communities were engaged in project implementation in different countries in different ways: In Brazil, they helped in field experiments, sites identification, understanding of biophysical links and functions in virgin Amazonian forests. In Mexico, they were involved also in testing practical applications of technologies, participatory meetings to select sites for applications, maintenance of the project results, field monitoring and sampling.

182. In total this project involved more than 190 scientists and specialists from 50 institutions and 7 country teams at any given time. It was difficult to balance the national and international interests in moving the project forward as one consolidated project. It required national and international meetings for coordination, planning, exchange of information and generation of outputs (in total 8 training workshops, 13 annual meetings, workshops and conferences (excluding annual national events), and 4 side events to COP and SBSTTA (see Annex 10).

183. A key and innovative feature of the project was strong involvement of students who carried out the research and implementation of activities in the field (more than 150 students engaged in the project in different countries). There was no funding for student stipends, and the capacity to attract students and get grants for student research varied strongly between countries and institutes.

184. Despite all these efforts and achievements, the project did not manage to go far beyond outreach of scientific community. The perspectives of those who could affect the outcomes and sustain project impacts (primarily policy makers, big international NGOs and private business) were not taken into account entirely and that reduced the project sustainability.

Public Awareness Activities

185. As mentioned in different sections above, the project public awareness activities were not unique in different countries and include the following actions at global and national levels:

scientific articles and books, project global web-site and national web-sites, policy briefs, reports made at different international and national meetings, presentations in mass-media, popularization through illustrated comics, albums and cartoons, meetings with local administrations and heads of communities, local participatory analysis and discussions, extension services provided by local NGOs and other extension officers, informal discussions with local farmers, children and other community members.

186. Nevertheless, despite these occasional examples, communication efforts for information dissemination and outreach (except scientific pillar) was overall weak, mainly because there was no systematic targeted set of activities planned from the start of the project. For future projects like this, professional public awareness specialists are required.

187. The overall rating on stakeholder engagement and public awareness can be considered **satisfactory** based on the active engagement of a limited set of the target stakeholders. However, considering the low baseline of general awareness on the subject of BGBD and its functions with many of the stakeholders in the countries, efforts to inform stakeholders laid the foundation for more active engagement going forward. There is a lot of evidence to show that farmers and policy makers in different countries became more aware of the role of BGBD. The training of students created more capacities for the future, and the popularization of BGBD knowledge through coloured booklets and brochures made local people and communities more aware of the importance BGBD.

C4. Country Ownership and Drivenness

188. The project outcome 4 (Recommendations of alternative land use practices and an advisory support system for policies that will enhance the conservation of BGBD) was proposed to directly contribute to national development priorities and plans through an advisory support system for policies that enhance the conservation of BGBD that provided increasing attention and awareness of BGBD at the government level.

189. Country ownership was strengthened by involving relevant country representatives from government and civil society in the project through their participation in the national steering committees, although the extent of the involvement differed in various countries. Moreover, participation of government officials in training and monitoring activities throughout project implementation was a great support to the project plans.

190. All financial commitments from participating countries were fulfilled and even exceeded.

191. As noted in the “Relevance” section above, at macro level the project was in line with sectoral and development priorities and plans of the partner countries. However, the BGBD issue is still an abstract idea for many policy makers and government officials hence, the relevance to general country strategies and plans is very obscure.

192. The successful examples of growing country drivenness and maintenance of the BGBD project impacts and follow-up actions include: the initiating of new national and international projects (see “Replicability” section), changes in national policy (Kenya), establishment of Soil Institute (Uganda), open window for BGBD data in national biodiversity data base (Mexico), etc.

193. The rating on country ownership and drivenness is **moderately satisfactory** based on the role (current and potential) of the project partners. National stakeholder involvement has been limited and sustainability of the project is not firmly grounded beyond the project partners. However the interest and potential from governments is quite high.

C5. Financial Planning and Management

Budgeting

194. The project document contains the following financial information:

- detailed project budget by countries and by outcomes/components including GEF financing and co-financing
- detailed GEF financing and co-financing budget by main categories of costs
- alternative co-financing and commitments of different institutions by countries and international funds/organizations in cash and in kind.

- rules for financial reporting, cost overruns, and use of non-expendable equipment (items costing $1,500 or more) as well as items of attraction such as pocket calculators, cameras, computers, printers, etc.
- forms for different financial statements and expenditures
- detailed project budget by years of implementation in UNEP format
- incremental costs matrix
- financial duties of Administrative Assistant

195. After being updated for Tranche II and taking into account MTE recommendations, the financial planning strategy also included audit reports, indicators for financial monitoring, requirements for the financial officer position in the Country Project Coordinating Office.

196. Financial management was successful in general, except for very few delays in receiving national financial reports and as a consequence – delays in reporting from TSBF-CIAT to UNEP. Procurement and disbursements were done on a timely basis and in accordance with annual procurement plans, which had been discussed at national advisory/national steering committees and adopted by TSBF-CIAT.

197. Financial management of the whole project undertaken by TSBF was convenient for all project partners, who acknowledged the financial relationships throughout the project even though the financial regulations in various countries differ. The selection within each country of financial institutions having experience and flexibility in implementing numerous international projects added value to effective disbursement and procurement. There were no significant problems in financial management or use of the project funds.

198. Contracts and a MoU with the project partners were signed in time, both within Tranche I and Tranche II.

199. Numerous consulting contracts were issued during the course of the project for research studies and training. Detailed terms of reference were developed by the global and national teams in conjunction with the relevant partners and in most cases, all partners were given the opportunity to provide relevant input.

200. Financial management at national level was also successful and this evaluation found no shortcomings in the countries visited. For example, in Kenya and Brazil the financial management was organised through parties (funds/grant offices) having substantial experience in financial management of international projects, and in Mexico – via experienced financial department of the Institute of Ecology, which provided strict financial control.

Expenditure and Reporting

201. The financial management did not require big allocations towards national financial bodies and also did not require creation of special new financial structures; nevertheless financial allocations, especially in some countries, were frequent and needed regular ‘no objections’ from the Global coordinator office.

202. Each semi-annual progress report from the country parties submitted a chapter with financial status (commitments and disbursements).

Project Revisions

203. UNEP supervision was timely and effective. There were 3 budget revisions to the project made in August 2007, February 2009 and May 2009. The budget revisions included reallocating funds from savings to undertake additional activities such as a closing conferences, publishing books, organizing side events, and others related to the project outcomes.

204. A final financial revision is anticipated for a project closing.

205. Good project management and efficient implementation has given the project plenty of buffer and flexibility and the project appears to be finishing up under budget with excess funds being used for additional activities.

Audit

206. No financial provision was made in the budget for audits. Audit reports were submitted on an annual basis by the EA. The cost was covered by co-financing to GEF funds.

Co-financing

207. Project co-financing was successful. The total co-financing consists of: USD 4,863,181 at Tranche I including USD 1,621,629 of leveraged funds and USD 6,643,630 at Tranche II: including USD 2,440,504 of leveraged funds.

208. Unfortunately, not all project partners fulfilled their initial commitments. For example, Indonesia, Uganda, CIAT and others did not fully carry out their financial obligations, but Brazil, India, Kenya exceeded their initial pledges. Nevertheless, all countries except Indonesia mobilized additional co-financing from new sources.

209. Co-financing was provided in-kind in the form of: scholarships to students; research productivity fellowships and grants; salaries of staff, use of equipment, facilities, reference collections, security; hosting and organization of meetings and workshops; NGOs salary, and others.

210. Leveraged funds in cash were mostly provided for scholarships and research fellowships.

211. The rating of financial planning and management is **Satisfactory.**

C6. UNEP Supervision and Backstopping

212. The Project Document established the roles and responsibilities of UNEP as GEF implementing agency, including responsibility for overall project supervision to ensure consistency with the GEF and UNEP policies and procedures, guidance on linkages with related UNEP and GEF funded activities, monitoring implementation of the activities undertaken. Also UNEP was responsible for clearance and transmission of all financial and progress reports to the Global Environment Facility.

213. All partners considered the support and advice provided by UNEP - such as approval of modifications in time, restructuring the project when needed, and also in achieving outputs and outcomes - very instrumental in the success of the project. Communication on progress and access to materials was also reported as excellent.

214. The rating on UNEP supervision and backstopping is **highly satisfactory**. This was mainly due to the Task Manager who was willing to be flexible and responsive to partner country needs.

C7. Monitoring and Evaluation

M&E design

215. The project document stated that monitoring would concentrate on the management and supervision of project activities, seeking to increase the efficiency and effectiveness of project implementation, and on-going evaluation would assess the project's success in producing each of the programmed activity milestones and outputs with respect to both quantity and quality. Roles of the project staff in the M&E process were identified. Performance indicators were planned to be applied to the work-plan at the start of each year and utilized at each point of the evaluation process. An evaluation as a means of assessing project success in achieving its objectives was proposed to be carried out mid-term (end of Phase 1) and at the end of the project.

216. The project M&E design was upgraded at the second stage of the project implementation. In particular, it added:

- Annual desk evaluation by UNEP/DGEF Coordination to measure the degree to which the objectives of the project had been achieved (in addition to the standard midterm and final evaluations as well as supervision missions conducted by the UNEP Project Management Officer and/or UNEP Fund Management Officer).
- Execution performance concept: execution monitoring assesses whether the management and supervision of project activities is efficient and seeks to improve efficiencies when needed so as to improve overall effectiveness of project implementation.
- The concept of Delivered outputs with a table titled "Description and timing of expected outputs by project component", and based on the timing of expected outputs and milestones on the monthly base.

- Indicators for evaluating whether the project management unit is effectively operational
- Project Impact and Intervention Logic concept detailed with the List of Key Performance Indicators referenced to baseline and methods of data collection.
- Detailed responsibilities of the project stuff and bodies.
- Framework for progress reporting in table format.
- Checklist/timetable for principle substantial report to be delivered.

217. Based on the evaluator's assessment, rating on M&E design is **moderately satisfactory (MS).**

Quality of the project logframe as a planning and monitoring instrument

218. The project logframe was well designed to serve as a tool for guiding project design, and implementation/management, although it was a bit ambitious in timeframe and objectives, and not all possible risks were properly identified. It was updated in 2008 to track possible progress towards achieving project objectives, impact and sustainability. PIRs basically reflected what had been provided in the Tranche II Project Document, their structure reflected three separate sections: *Progress towards achieving the project objective and outcomes* (with description of indicators applied, baseline level, mid-term target, end target, level to date of evaluation, and progress rating), *Project implementation progress* (pointing Expected completion date, Implementation status as of date of evaluation (%), comments and problems to be addressed, and progress rating), and *Risks assessment* with level indication.

219. This structure provides opportunity to monitor project gaps and underline those under MS, MU, U and HU rating to be addressed in the Action plan, and propose/correct risk mitigating activities.

220. The indicators mentioned in the logframe to assess the global objectives and broader outcomes were SMART[19] basically, but did not clearly reflect the difference between project outcomes and outputs. The large number of indicators also provided difficulties in national reporting, and they have never been used as a whole set (see also section "Project activities and outputs achieved".

Adequacy of baseline information

221. The project has collected and presented a comprehensive set of baseline information, which relates not only to the project objective and outcomes, but even to each activity/output with indication of data sources and methods to further collect information and monitor results. This information was used in the logframe and PIRs to monitor project progress.

Arrangements for monitoring and evaluation

222. The responsibilities for M&E activities were clearly defined, data sources and data collection instruments were appropriate, and the frequency of various monitoring activities specified and adequate. Targets for outputs were specified by their titles and performance indicators referred to each activity, as well as to objectives and outcomes.

223. The project monitoring and evaluation plans seem to be useful, in that they allowed for a structured monitoring and evaluation of the progress which was useful for internal communication and planning as well as for the external communication (i.e. with donors and partners). However, it should be noted that depending on the project and the topics covered it was not always possible to set targets for the number of beneficiaries to be reached, or to set targets related to the improvement of livelihoods, or in terms of number of species effectively protected through conservation and management practices, or number of ecosystem services effectively managed. Therefore not all of the project indicators suggested in the logframe were used for PIR reporting.

[19] SMART: Specific, Measurable, Achievable, Relevant, and Time-bound

Budgeting and funding for M&E activities

224. There was a zero funding in the M&E line of the project budget allocated specifically for ongoing monitoring, reviewing of assumptions and results for adaptive management. Nevertheless in the project, M&E was addressed informally through project management activities, and M&E cost was covered by IA fee. The final PIR also indicated that the project had budgeted for M&E activities indirectly. At the last stages of the project some savings of $9,922 were used for monitoring activities.

225. The rating on M&E arrangements is **satisfactory (S)**

M&E Implementation.

226. Actually both at global and national level the project logframe was used as a basic monitoring tool. At national level the overall project logframe and performance indicators were slightly adapted to the countries' specificity, but not in a way that influenced anticipated project results. Therefore in general the M&E system was operational and facilitated timely tracking of results and progress towards basic projects objectives throughout the project implementation period. This is evident from the national semi-annual report and overall annual PIRs, which were basically complete and accurate.

227. The basic information from the project reports (both national and global) were summarized by the Project Coordinator and presented at the annual Steering Committee meetings for assessment and adaptive decision making and changing needs.

228. On the other hand, despite the big number of indicators suggested in the project logframe, the evaluator did not find in the project reports any kind of detailed analysis of the approximation of the intended results measured against the overall set of performance indicators stated in the project document.

229. Some of the monitoring forms requested by GEF were difficult to fill without special training of the national teams, especially on cost-efficiency. The difference between and peculiarities of outcomes/outputs/milestones/impacts/performance indicators/impact indicators etc. were not clear to national teams.

230. In our opinion, based on the interviews during field mission, M&E guidelines and training could have been helpful in partner countries in addition to the strong M&E system described above in the "M&E design" section. Such guidelines could also explain the project intervention logic to show the place of each performance and/or impact indicator in the evaluation of the overall project goals.

231. Without these guidelines the M&E system was not sustainable, it did not create capacities to ensure that the project monitoring data (except data at national levels and/or scientific data) will continue to be collected and used after project closure.

232. However, the project did well on supervision and backstopping, efficiency and achievement of outputs based on the good communication and meetings, partner updates and Steering Committee meetings. Throughout the project, countries were in the state of ongoing informal competition, which promoted adaptive management. This can be considered a lesson for UNEP and GEF, to recognize informal monitoring as an effective tool.

233. In view of the above, the overall rating of the project M&E implementation is **moderately satisfactory (MS).**

D. Complementarities with UNEP strategies and programmes

Linkage to UNEP's Expected Accomplishments and POW 2010-2011

234. A few aspects of the project linkage to UNEP priorities have been reflected in the section "Milestones in Design, Implementation and Completion" and will not be repeated here.

235. Although the final PIR stated that environmental benefits have not been explicitly addressed in the project, the review of Outcomes-to-Impacts and field interviews detected that the project has contributed to the following expected accomplishments of UNEP cross-cutting Thematic Priorities (TP): table 3.

236. Table 3. Project contribution to the expected accomplishments of UNEP Thematic Priorities

TP	Objectives	Expected accomplishments	Project contribution

Ecosystem management	Countries utilize the ecosystem approach to enhance human well-being *Impact indicator:* increase in environment-related budget allocated to ecosystem management	Countries and regions increasingly integrate an ecosystem management approach into development and planning processes. Countries and regions have capacity to utilize ecosystem management tools. Countries and regions began to realign their environmental programmes and financing to address degradation of selected priority ecosystem services.	The project has contributed to the development of concepts on environmental and economic benefits in pilot countries. All the countries have pilot sites with demonstrations of sustainable BGBD management and conservation. Ecosystem services assessment and based on this recommendations of alternative land use practices and advisory support system for policies that will enhance the conservation of BGBD through the ecosystems management have been provided. Policy makers are being involved at various stages during project workshops and community events. Policy briefs issued by the project assisted decision makers to take up the policy recommendations and guidelines from the project (examples provided in the sections "Project activities and outputs achieved" and "Effectiveness".
Environmental governance	Environmental governance at country, regional and global levels is strengthened to address agreed environmental priorities *Impact indicator:* increase in States' budget allocated to environment; number of legal and institutional frameworks adopted that empower the environment in Government	National development processes and United Nations common country programming processes increasingly mainstream environmental sustainability in their implementation National and international stakeholders have access to sound science and policy advice for decision-making	The project has stressed the importance of soil health and soil ecosystem function in increasing agricultural production in a sustainable manner as alternative to fertilizer only options, and presented this view in the various fora. Policy analyses conducted by the project in a number of countries stressed that BGBD should be mentioned explicitly in any of the policies formulated. The project concluded that lack of data and information on BGBD, tools and techniques for inventory and monitoring, as well as lack of dissemination efforts are the main issues to be addressed as national priorities in various related environmental and agricultural development programmes and plans. It was therefore recommended that decisions of the CBD COP on the soil biodiversity initiative stress the importance of data and information. Most of countries' scientific websites are running and operational. Inventory data completed in all project countries and together with most of scientific reports and publications are accessible via project partners despite the fault of the international Web-site and data base. Participation in the project has certainly enhanced capacity of national Universities, has promoted and stimulated further research in BGBD and enhanced the status of the various departments that deal with the various aspects of BGBD.
Resource efficiency	Natural resources are produced, processed and consumed in a more environmentally sustainable way *Impact indicator:* number of Govern-ments introducing policy reforms; number of private sector initiatives leading to more efficient and less polluting use of natural	Investment in efficient, clean and safe industrial production methods is increased through public policies and private sector action	The project have indicated that there is great potential for further benefiting from activity of micro-symbionts (N2 fixing bacteria, AMF and other) as well as from other growth promoting micro-organisms and that there will be great environmental and economic benefits to be realized from biological intervention in production systems. Almost all project demonstrations are continuing in various ways with new funding and sometimes in new sites.

	resources		

Alignment with the Bali Strategic Plan (BSP)

237. The outcomes and achievements of the project fully demonstrate alignment with the objectives of the BSP: (a) the scientific knowledge capacities of 7 developing countries and countries with economies in transition in BGBD inventory and management has been strengthened; (b) targeted support to main national Universities and institutes working in the field of biodiversity conservation and sustainable land management has been provided. Through more than 190 scientists, 150 students, 11 NGOs, and extension workers involved in the project the overall countries' capacities in BGBD inventory and management have been improved, (c) good practices in BGBD conservation and management in 7 countries have been studied and technologies mainstreamed throughout UNEP activities, (d) the cooperation among UNEP and a number of international and national project stakeholders engaged in environmental capacity-building was strengthened.

Gender

238. As there were no direct links between the project design, implementation and monitoring with gender issues, the intervention is unlikely to have any differential impacts on gender equality and relationship between women and the environment. However, women scientists were very strongly represented in the project team. As far as engagement of the farmer community is concerned the project always made sure there was adequate representation of women farmers and women in the group and surveys carried out, acknowledging the (sometimes specific) role of women in agriculture. Moreover, it was noticed during the evaluation, that in some countries the project impact was significant in terms of the enhancing skills of women in agriculture and biodiversity management, because of their increasing involvement in agricultural activities in comparison with the past due to the growing labour migration of men abroad or to other areas within the country. Such migration also promotes involvement of old people and children into rural activities.

South-South Cooperation

239. Seven countries with significant expertise in soil biology have joined together to participate in this project. The present capacity in soil biodiversity inventory and management has been built upon, or provided by "South-South" exchanges and training. South-South exchanges among stakeholder levels constituted an important part of capacity building component and added significant value to outcome 5 component supporting the integration of scientific and indigenous technical knowledge. Capacity building also involved dialogue to achieve reconciliation of the objectives of the agricultural and environmental sectors overseeing the development of the project benchmark areas.

240. Scientists, students, NGOs, and extension workers from developing tropical countries have benefitted from formal training, short term courses or through participation in the project where partners from different countries were trained in the countries where the highest capacity existed.

241. Conferences, workshops, agricultural shows, publications, media (print and visual) were used to disseminate and create awareness of the BGBD Project and among pilot countries. Side events in CBDs and other international forums were used by the project scientists to expose the project.

242. All the project countries experimented with and proposed local options to improve sustainable production and poverty alleviation through either alternative land uses or alternative management practices and communicated these through stakeholder workshop for the attention of regional and national authorities.

243. One of the emerging issues in the project is improving regional cooperation and links between scientists. For example, cooperation between Mexico-Brazil (and other LAC), Kenya-Uganda-Ivory Coast (and other East Africa countries) attract other countries in their regions to participate in the study and application of BGBD knowledge and biotechnologies. The strengthening and support of such regional cooperation seems to be more effective than global initiatives

Part III. Conclusions and Recommendations

A. Conclusions

Advantages

244. The project was in general very successful in scientific knowledge of below ground biodiversity in the tropics, particularly in inventory of soil biodiversity and methods of its sampling and identification. These achievements also allowed the discovery of new species and making a number of new records of soil biota. Activities in conservative land management technologies and biotechnology applications, and also trainings and other Public Relations actions in participating countries have provided noticeable impact in public awareness and capacity building at all levels of public society, from grassroots to policy makers.

245. The project should be considered as a pilot comprehensive and multifocal project on the BGBD issues in GEF system, which opens numerous perspectives for further activities.

246. The project managed to get and disseminate in scientific literature a new knowledge about tight interrelations between such environmental issues as biodiversity conservation and land degradation, and also a cross-linkage with other main environmental and development issues such as food security, climate change and carbon and nitrogen cycle, pure water supply, genetic resources, etc. A few interesting results have been achieved in the field of environmental services assessment.

247. The particular extent of success in different fields is not equal in different countries, and various project achievements from the individual countries should be considered basically as adding value. Consequently, this project strategy helped to discover a diversity of approaches to BGBD conservation and management.

248. The project scientific impact is high in each participating country (if to compare with the initial level) and in global context. Actually the project activities are still continuing through data processing and uploading to data bases, books and papers under preparation, demonstration sites operational and supported to different extent from various sources.

249. The project played high indirect catalytic and replication effect (including practical applications of biotechnologies and scientific experiments, capacity building, policy making, new projects and scientific entities) in partner countries and even beyond, despite this it has not developed any formal strategy or framework for scaling up activities and outcomes. The overall project impact had not been achieved at the time of the evaluation. Its indirect impact will be growing at least during 5-7 years after the formal project completion.

Weaknesses

250. The Global BGBD database and website as an international hub (proposed to serve as an essential tool for transferring information beyond the project sites and countries and securing global benefits) in general should be considered as a project shortcoming. It was not integrated into the CIAT portal, although this was a result of reorganization of TSBF and some structural changes in CIAT HQ. The result is that at the time of this evaluation the global BGBD database and Web-site were not operational, although there are plans to revive them. Nevertheless, national data bases were developed to different extent and even heavily supported by governments in some countries.

251. The issue/concept of sustainable management of BGBD was not realized so much in the project as the issues of BGBD conservation and/or BGBD use. Only preliminary approaches

have been traced in terms of BGBD ecosystem functions and services, and the role of soils resources in biosphere and human life; this concept still needs further study and development.

252. Unfortunately, the research and results on the study and conceptualization of economic valuation of BGBD were not applied as case studies upon the majority of project sites/plots despite interesting results gained in some countries. This decreases the possible effects of demonstrating economic benefits derived from management of BGBD.

253. The following table presents a summary of main findings of the evaluation in relation to the key questions listed in the ToR:

Table 4. Key questions and answers

Question	**Answer and comment**
How successful was the project in establishing internationally accepted standard methods for characterization and evaluation of BGBD, including a set of indicators for BGBD loss?	Highly successful
How successful was the project in creating an inventory and evaluation of BGBD in the benchmark sites?	Highly successful
To what extent was the project successful in creating sustainable and replicable management practices for BGBD conservation in the 7 countries?	To different extents in the different countries: from moderately to very successful. Although a number of practices were suggested and tested, their sustainability and replicability is a critical point
To what extent did the project improve capacity of relevant institutions and stakeholders to implement conservation management of BGBD in a sustainable and efficient manner in and beyond the participating countries?	To different extents in the different countries: from moderately to very successful. The more successful were scientific capacities improvement, such as labs and equipment in universities and research institutes, and education and training of relevant specialists in universities. Less successful were results in encouraging other relevant partners who can sustain the project results in future (policy makers, business, strong national NGOs, etc), although this was not among the project priorities.
How successful was the project in enabling global information exchange network for BGBD?	Successful in the case of international conferences and trainings. Unlikely in the case of international web-site and data base
How successful was the project in enhancing BGBD conservation through recommendations of alternative land use practices and an advisory support system?	To different extents in the different countries. A number of recommendations, including trainings for local communities and policy briefs have been undertaken and prepared, but there is little evidence of enhancing BGBD conservation through this
To what extent did the provision of an advisory support system for BGBD conservation improve decision making for stakeholders, particularly policy makers?	To different extents in the different countries: from the development of the Draft national program for BGBD conservation in Kenya to nothing in Brazil

Table 5: Summary of Ratings based on Performance Criteria described in Part II

Criterion	**Summary Assessment**	**Rating**
A. Attainment of project objectives and results		S
1. Effectiveness	Effective to varying extents in different areas (science, knowledge management and decision support, practical applications) in participating countries	S
2. Relevance	Relevant to global and national priorities	HS
3. Efficiency	Highly satisfactory in view of cost efficiency efforts leveraging not only additional financial resources, but also partner knowledge, networks and global events.	HS
B. Sustainability of project outcomes		MU

Criterion	Summary Assessment	Rating
1. Financial	Moderately likely (ML): The project did not develop any strategy for financial sustenance of its results.	ML
2. Socio-political	Moderately unlikely (MU): there are significant risks that affect this dimension of sustainability (low incentives of main stakeholders, no adequate legislation and enforcement).	MU
3. Institutional framework	There are no or negligible risks that affect this dimension of sustainability: institutional network supporting project results are not fully ramified	L
4. Environmental	There are no or negligible risks that affect this dimension of sustainability: the most dangerous environmental risk of the project results is connected with possible invasion of alien species by inoculants with biofertilisers	L
C. Catalytic role	Good catalytic role in scientific development and indirect impact on other new projects, but weak in practical applications	S
D. Stakeholders involvement	Despite the few occasional examples, communication efforts for information dissemination and outreach (except scientific pillow) were overall a weakness. Only a limited set of the target stakeholders were actively engaged. The extent of involvement of key groups differed in participating countries	S
E. Country ownership / drivenness	The sustainability of the project is not firmly grounded beyond the project partners, mainly scientific institutes and universities. However the interest and potential from local and national governments is quite high.	MS
F. Achievement of outputs and activities	The project was very successful in implementing its logframe except components 2.4 and 4.2. The extent of success is fully described in the latest PIR and final technical report	S
G. Preparation and readiness	There were some concerns raised that the project timeframe and objectives were a bit ambitious, not all possible risks have been properly identified, weakness in the arrangements to the project sustainability, lack of baseline assessment relevant to the project performance indicators	MS
H. Implementation approach	There were no specific adaptive management strategies in the project. Not all units and committees specified in the project document really worked as well as it was intended in the original governance arrangements of the project	S
I. Financial planning and management	Financial management was successful in general, except very few current delays with receiving national reports and as a consequence – delays with reporting from TSBF-CIAT to UNEP	S
J. Monitoring and Evaluation		MS
1. M&E Design	Was reviewed in the second phase and became more effective, but there were no specific guidelines for the country partners, making tracking and reporting difficult.	MS
2. M&E Plan Implementation	Both mid-term and Final Evaluations were planned and undertaken. Too many performance indicators were developed and were hard to follow. No specific training on M&E for partner countries/national teams was offered	MS
3. Budgeting and funding for M&E activities	There are discrepancies in the project documents on the budgeting and funding for M&E	S
K. UNEP and DEPI Supervision and backstopping		HS
1. UNEP	Highly satisfactory: mainly due to the individual Task Manager who was willing to be flexible and responsive to partner country needs	HS
Overall rating		**S**

B. Lessons Learned

254. Many lessons learned from problems in Processes were highlighted in Part II. The following lessons are based on the above findings which have the potential for wider application and use. Lessons learned relate to good practices and successes which should be replicated, as well as problems and mistakes encountered which should be avoided for future related work.

Project design

255. The hosting of the project mainly in universities and research institutes stimulated considerable scientific work and promoted sustainability of scientific results and knowledge management. Although the project was designed, approved and implemented as GEF targeted research project, many stakeholders noted that results of the project will be more sustainable if they are mainstreamed in practice.

256. On the other side, hosting the project within universities and academic institutes provides, to our experience, more sustainability to the project results than it could happen in any temporal governmental centre (like PMU or PIU), because universities are interested in long-term application of the project results at least in educational programmes, courses and scholarships.

257. The overall project logframe was ambitious, and it was evident from the project document that the full set of outputs and performance indicators could never have been achieved within the project time and budget, especially if partner countries were to be assessed from a uniform base. The evaluator fully understands and even recommends that projects like these *should set ambitious goals* in order to have flexibility in planning and prioritizing within the project development.

258. The scheme of the project financing through experienced international and national institutes was very effective, nevertheless project management at national level sometimes felt not skilled enough in working with GEF regulations without training.

259. Different priorities and incentives of key stakeholders in different countries at national, regional and local levels should definitely be taken into account while preparing national logframes to reflect these priorities in the overall planning. For example, in Mexico the priority was to conserve soils to support people's livelihoods and develop agrarian development plans; in Kenya – to enhance agricultural income and improve soil fertility; In Brazil – biodiversity conservation and forest management. In such cases it would be better from the beginning or at least after mid-term evaluation to review project design to determine roles and tasks of national teams more definitely promoting better target results and funds allocation.

260. In the evaluator's opinion, it was a fault of the project that it did not intend to develop adequate methods/initiatives to maintain project outcomes and follow-up replication and dissemination activities. Such activities should be supported by regional and national policy makers, relative legislation and enforcement, and planning.

261. Countries' peculiarities (cultural, economic, scientific background, etc) should also be taken into account at the project design and current planning.

262. While applying new technologies at local level the issue of marketing and diversification of agriculture to avoid risks of technologies misuse errors and unsteadiness in production are crucial and should be taken into account from the very beginning.

263. Remote project sites are less valid for demonstration purposes than those closer to populated areas. In future it is recommended at least to duplicate demonstration sites in more accessible areas.

264. Projects aimed at success in agriculture must be certain of agronomy assistance at the grassroots level. Absence of extension services in Mexico was crucial; in contrast its well-developed network in Kenya added value to the success of the practical applications.

265. The overall project context and purpose were not clear enough at the national level, and main work was concentrated on the implementation of the separate project activities more relevant to actual national priorities. Consequently the conservation and sustainable management ideas were forgotten to a certain extent. The "think global/act local" approach was not the main focus within national sub-projects.

266. The complex backstopping approach to the causal pathway of the project (where first outcomes serve as intermediate stages to the next ones) is absolutely reasonable on one hand, but on the other hand is a bit risky if any of the Outcomes/Components (each of them is crucial to the project impact) fail or delay due to some reasons. It happened to some extent in this project when it went into skid at the stage of outcome 1 and 2.

Project implementation

267. The incentives for practical application of innovative biotechnologies (as well as incentives of different stakeholders to participate in the project) have not been taken into account adequately at the project design and inception phase to be used as encouraging mechanism both at local and national levels. In other words, the project had a strategy on how to identify and demonstrate technologies, but not a strategy on how to apply them. In other words, delivery and dissemination should be considered as an integral part of demonstration activities of the project.

268. The Project created no window for national teams to actively participate in correcting project timetable and adaptive management; this in turn did not encourage the specification of priorities in implementing activities at national level more successfully.

269. The Project had weak contacts with strong international NGOs, business and governmental bodies, especially at national level that in general decreased the possible project success, sustainability and replication. The national teams mainly located in universities and scientific institutes were not ready for such cooperation as a result of the lack of management experience, and this resulted in a weak maintenance of the project perspective on practical results.

270. Interrelations between national teams were difficult because of cultural differences. The preliminary training on communication, social ethics and cultural tolerance would be helpful in international projects like this.

271. To get support from local people, biodiversity conservation projects like this should create strong links to people's needs, mainly soil fertility, pasture productivity, public health, clean water, etc.

272. In future projects of this type, environmental education should be included as an essential sub-component. This could serve as an effective awareness raising and encouraging mechanism in the project.

M&E

273. Too many performance indicators are hard to monitor and evaluate.

274. In addition to the strong M&E system proposed for the project, national teams need M&E guidelines and training. Such guidelines could also explain the project intervention logic to show the place of each performance and/or impact indicator in the evaluation of the overall project goals.

275. The difference between and peculiarities of outcomes/outputs/milestones/impacts/performance indicators/impact indicators etc. were not clear to national teams, so it was difficult to make effective monitoring on the project results and activities.

Sustainability

276. One of the growing points of the project is improving regional cooperation and links between scientists, better than global. For example, Mexico-Brazil (and other LAC), Kenya-Uganda-Ivory Coast (and other East African countries). The strengthening and support of the regional cooperation seems to be more effective within the near future than global initiatives.

277. Products with wide public awareness (such as illustrated booklets and brochures, cooperation with school teachers, extension officers, local NGOs and communities' authorities, etc.) produce quicker impact than specific scientific papers published in peer-reviewed journals.

278. Catalytic effect of the project could be higher if it developed a strategy or framework for scaling up activities and outcomes.

279. Projects like this (those with basic results anticipated in science and capacity building) should think about their exit strategy and sustainability throughout the project, and seek and select growing points for testing within the project framework and further development if successful.

280. New data bases on biota and biodiversity created by separate projects are unviable if not integrated with existing functional international data and knowledge systems.

Impact

281. Biodiversity is still not among priorities in rural areas at local and regional level, and project sites are not excluded. The BGBD issue is still an abstract idea for many policy makers and government officials hence the relevance to general country strategies and plans is very obscure.

282. Innovative biotechnologies and good land use practices are identified and tested in pilot demonstration project sites over a total of 132 farmer-level demonstration plots. These practices and technologies were documented mainly in scientific literature and are not available to wide audiences and potential users. It is recommended that relevant information on technologies and approaches be provided to national extension services and to the WOCAT international data base for further dissemination.

283. Further projects on BGBD management, especially in agriculture and forestry, should raise the issue of possible invasive species becoming artificially inoculated and disturbing natural communities.

C. Recommendations

284. As the project initiated global Data base on BGBG is faulty, it is recommended not to lose time to revive it but to integrate collected data into existing operational systems, such as JRC's European Soil Database, FIGS, The ECN Data Centre, and others.

285. It is recommended to TSBF-CIAT as a holder of the project data, to find opportunities to select appropriate system and forward/upload the project data for public access, taking into account intellectual property rights.

286. It is also recommended to TSBF-CIAT to update links to the national BGBD web-sites.

287. An idea appeared during the evaluation to establish an on-line scientific journal on soil biodiversity capable of publishing data on soil biota inventories, collections and data bases. Such information is currently not easily available in the scientific literature, and this journal would be able to fill that gap. The University of Stellenbosch (South Africa) has already supported this idea and is ready to host the journal. An initiative should be undertaken by the TSBF-CIAT or any active project partner to develop the idea.

Annex 1.

Terms of Reference

Terminal **Evaluation of the Project "**Conservation and Sustainable Management of Below-Ground Biodiversity**"**

xxviii. PROJECT BACKGROUND AND OVERVIEW

xxix. Project General Information[20]

Table 1. Project summary

GEF project ID:	GF/1030-06-01	**IMIS number:**	GFL/2328-2715-4923
Focal Area(s):	Biodiversity	**GEF OP #:**	13,3
GEF Strategic Priority/Objective:	BD-2	**GEF approval date:**	8th February 2006
UNEP approval date:	Tranche I: 1 August 2002 Tranche II: 28 April 2006	**Date of first disbursement:**	Tranche I: 13 August, 2002 Tranche II: 4 May 2006
Actual start date:	Tranche I: 1 August 2002 Tranche II: 28th April 2006	**Planned duration:**	Tranche I: 36 months Tranche II: 36 months
Intended completion date:	Tranche I: July 2005 Tranche II: December 2010	**Actual or Expected completion date:**	Tranche I:June 2005 Tranche II: August 2010
Project Type:	FSP	**GEF Allocation:**	Tranche I: $5,022,646 Tranche II:$4,007,124
PDF GEF cost:	PDF A – US$25,000 PDF B – US$248,000	**PDF co-financing:**	US$36,000
Expected MSP/FSP Co-financing:	$7,438,678	**Total Cost:**	US$16.777.448
Mid-term review/eval. (planned date):	May 2005	**Terminal Evaluation (actual date):**	February-May 2013
Mid-term review/eval. (actual date):	May 2005	**No. of revisions:**	Tranche I: 4 Tranche II: 3
Date of last Steering Committee meeting:	December 2009	**Date of last Revision:**	Tranche I: 29.08.2007 Tranche II: 13.5.2009
Disbursement as of 30 June 2011:	Tranche I: $5,022,646 Tranche II:$3,961,322	**Date of financial closure:**	N/A
Date of Completion*:	Expected August 2010	**Actual expenditures reported as of 30 June 2011:**	Tranche I: $5,022,646 Trance II: $3,937,391
Total co-financing realized as of 30 June 2011*:	Tranche I: $3,241,552 Tranche II:$6,637,630	**Actual expenditures entered in IMIS as of 30 June 2011:**	Tranche I: $5,022,646 Tranche II:$4,000,624
Leveraged financing:	Tranche I: $1,621,629 Tranche II:$2,446,504		

xxx. Project Rationale

1. The soil organism community, including bacteria, fungi, protozoa and invertebrate animals, is extremely diverse. Over 1000 species of invertebrates were identified in 1m2 of soil in temperate forests in Germany. Few data are available from tropical regions, where it is suspected that the highest levels of diversity may be found. Consequently, although the biological diversity of the community of organisms below-ground is probably higher in most cases than that above-ground, it has generally been ignored in surveys of ecosystem biodiversity.

2. Soil organisms contribute a wide range of essential services to the sustainable function of all ecosystems, by acting as the primary driving agents of nutrient cycling; regulating the dynamics of soil organic matter, soil carbon sequestration and greenhouse gas emission; modifying soil physical structure and water regimes; enhancing the amount and efficiency of nutrient acquisition by the vegetation through mycorrhiza and nitrogen fixing bacteria; and influencing plant health through the interaction of pathogens and pests with their natural predators and parasites. These services are not only essential to the functioning of natural ecosystems but constitute an important resource for the sustainable management of agricultural ecosystems.

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[20] Source: UNEP GEF Project Implementation Report (PIR) Fiscal Year 2010
*GK: The information here is provided as it has been presented in the original ToR. After completion of the draft Evaluation report the Project Financial Manager clarified that "the Tranche I Co-financing excludes the leveraged figure, whereas the Tranche II includes it". This disparity has caused a number of confusions during the evaluation, but finally was harmonized and presented in correct version in the Project Identification table at the beginning of the report itself

3. The processes of land conversion and agricultural intensification are significant causes of biodiversity loss, including that of BGBD, with consequent negative effects both on the environment and the sustainability of agricultural production. This loss of biodiversity is caused by a complex of reasons at both root and proximate levels. At the root level are a set of causes related to the processes controlling land use conversion and agricultural intensification including: population increase, national food-insufficiency, internal geographical imbalances in food production, progressive urbanization and a growing shortage of land suitable for conversion to agriculture. At the proximate level, loss of biodiversity is associated with decision making at the household and/or community levels about the crops and livestock to be produced, and the methods to be used for their production. These decisions are driven by economic needs and those of food sufficiency, the nature and efficiency of agricultural markets, the extent of public and private investment and the associated institutional support for agriculture, and policies for land use and management in both the agricultural and environmental sectors.

4. As land conversion and agricultural intensification occur, the planned biodiversity aboveground is reduced (up to the extreme of monocultures) with the intention of increasing the economic efficiency of the system. This impacts the *associated* biodiversity of the ecosystem eg., micro-organisms and invertebrate animals both above- and below-ground thus lowering the biological capacity of the ecosystem for self-regulation and hence leading to further need for substitution of biological functions with agrochemical and petro-energy inputs. Equivalent 7 effects have been observed in intensive cattle pastures. The sustainability of these systems thus comes to depend on external and market-related factors rather than internal biological resources.

5. As stated in the project document (15 September 2005), the assumption is often made that the consequent reduction in the diversity of the soil community, including cases of species extinction, may cause a catastrophic loss in function, reducing the ability of ecosystems to withstand periods of stress and leading to undesirable environmental effects. Scientists have begun to quantify the causal relationships between (i) the composition, diversity and abundance of soil organisms, (ii) sustained soil fertility and associated crop production, and, (iii) environmental effects including soil erosion, greenhouse gas emissions and soil carbon sequestration. Consequently, actions that directly target the joint conservation of both above- and below-ground components of biological diversity will have environmental benefits at ecosystem, landscape and global scales.

6. The failure to take such actions is partially attributable to the absence of agreement on standardised methods for the study of BGBD, and a lack of both knowledge and awareness of this key component of global biodiversity. Sustainable and profitable management of agricultural biodiversity, including BGBD, is dependent on information about the current status, the value perceived by the various sectors of society, and the factors which drive change in one direction or other. Despite its importance to ecosystem function, the soil community has been almost totally ignored in considerations of biodiversity conservation and management even at the inventory level. The Global Biodiversity Assessment (UNEP, 1995) documents existing biodiversity information. The sections on agrobiodiversity, and in particular the below-ground component, are amongst the most incomplete and inadequate. This is reflective not only of gaps in knowledge but also of barriers and failures in information flow and access. Furthermore, the role of the soil biota, with the exception of a few groups, has been given relatively little attention in agricultural research.

7. The scarcity of information is in part due to lack of international consensus on standardized methods for the determination of BGBD, its functional significance and its present and future value. Furthermore, this methodology gap has limited the generalization and comparability of results from previous studies and their applicability to management of BGBD. In particular, the lack of rapid indicators of BGBD loss has hindered the inclusion of BGBD in biodiversity assessment protocols and inhibited conservation opportunities.

8. Governments have typically encouraged land conversion and agricultural intensification in response to the demand for higher levels of food production under conditions of increasing population growth. In the majority of tropical countries no alternative legislation that will influence the path of agricultural development, has been put in place. Market forces, with often little concern for environmental externalities including the loss of above and below-ground biodiversity, are therefore even more dominant than previously, while food security has continued to decrease in many countries, particularly in Africa.

9. Amidst a policy and economic environment that does not acknowledge the importance of managing and conserving agrobiodiversity; farmers, rural communities, scientists, NGOs and the general public have become increasingly aware of the high environmental cost of many intensive high-input agricultural practices. Furthermore, it is now accepted that loss in biodiversity (including BGBD) is one of the major factors leading to degradation of ecosystem services and loss of ecosystem resilience. In many countries, however, conflicts have arisen between policies to support biodiversity conservation and ecosystem protection and those of agricultural development.

This project therefore addresses the means by which BGBD may be adequately managed and conserved in tropical agricultural landscapes. It was executed in 7 tropical countries: Brazil, Cote D'Ivoire, Indonesia, India, Kenya, Mexico and Uganda. As per the project document (11 June 2002), the project work was scheduled into two tranches: Tranche I running for year 1-2 and Tranche II running for year 3-5. This evaluation covers both Tranches I and II of the project.

xxxi. Project objectives and components

10. The project's overall development goal *is enhancing the conservation and sustainable management of below-ground biodiversity.* Its main objective *is to enhance awareness, knowledge and understanding of below-ground biological diversity (BGBD) important to sustainable agricultural production in tropical landscapes by the demonstration of methods for conservation and sustainable management"* The project will explore the hypothesis that, by appropriate management of above- and below-ground biota, optimal conservation of biodiversity for national and global benefits can be achieved in mosaics of land-uses at differing intensities of management and furthermore result in simultaneous gains in sustainable agricultural production.
The project has five components, each with its own component objective as presented in table 2.

Table 2. Project components and component objectives

Components	Component objectives
Component I **Standardized methods standard methods for characterization and evaluation of BGBD**	To design internationally accepted standard methods for characterization and evaluation of BGBD, including a set of indicators for BGBD loss.
Component II (a) **Inventory and evaluation of BGBD in benchmark sites**	To inventorise and evaluate BGBD in benchmark sites representing a range of globally significant ecosystems and land uses, using methods developed in Component I.
Component II (b) A global information exchange network for BGBD	To create a global information exchange network for BGBD.
Component III Management practices for BGBD conservation	To identify and implement sustainable and replicable management practices for BGBD conservation on pilot demonstration sites in representative tropical forest landscapes in the seven countries.
Component IV Recommendations of alternative land use practices, and policy advisory system,	To develop recommendations of alternative land use practices and an advisory support system for policies that will enhance the conservation of BGBD.
Component V Capacity Building and Public Awareness	To improve capacity of all relevant institutions and stakeholders to implement conservation and management of BGBD in a sustainable and efficient manner

The planned outputs under each component, as per the Logical Framework Matrix are presented in Annex 1 of the TORs. Component I of the project is a targeted research component which seeks to provide the information, knowledge and tools that form the essential basis for the proper development of other operational components of the project.

11. Component II (a) seeks to inventorise and evaluate the baseline for agrobiodiversity status and management, with particular reference to BGBD while Component II (b) seeks to facilitate cross-country analysis and synthesis of BGBD data using an International Information System on the World Wide Web.

12. Component III of the project seeks to establish and implement sustainable and replicable management practices for BGBD conservation on pilot demonstration sites, which practices also show potential agronomic, social and economic benefits.

13. Component IV seeks to improve decision making for stakeholders, particularly policy makers and other decision-makers, by providing an advisory support system and decision aids on recommended or alternative land use and land management practices which support agricultural development priorities as well as biodiversity conservation and environmental conservation (win-win situation).

14. Component V seeks to enhance capacity of all stakeholder groups to implement conservation and management of BGBD in a sustainable and efficient manner in and beyond the participating countries. It also seeks to increase awareness throughout the diverse groups of stakeholders of BGBD and its importance.

xxxii. Executing Arrangements

15. UNEP is the Implementing Agency (IA) for this project with responsibility for project management, overview, monitoring and liaison with, and reporting, to the GEF. The lead Executing Agency for the project is the International Centre for Tropical Agriculture-Tropical Soil Biology and Fertility Institute (CIAT-TSBF), and will provide the appropriate managerial, administrative and financial procedures to ensure proper execution of the project. The National Executing Agencies in project partners countries include as followes; Brazil: Universidade Federal de Lavras; Côte d'Ivoire:Université de Cocody (Abidjan);India: Jawaharlal Nehru University; Indonesia: Universitas Lampung; Kenya: University of Nairobi; Mexico: Instituto de Ecologia, Xalapa; Uganda: Makerere University.

16. The project is coordinated by the Global Coordination Office (GCO) located within TSBF. The Country Programmes report directly to the GCO and the GCO reports to UNEP/GEF.

17. The Project Steering Committee (PSC) is the body that takes decisions regarding all matters pertaining to the implementation and management of the project. It has representatives from all the Country Programmes, UNEP/GEF and TSBF. The Project Advisory Committee (PAC) provides advice to the PSC and is made up of representatives from the seven participating countries and six members of international organizations or international projects with relevance to agro-biodiversity or biodiversity conservation. The PAC is informed by the GCO on the status of the affairs, with the Global Project Coordinator (GPC) acting a secretary to the PAC.

18. The Project as well reports to the Scientific Advisory Committee of TSBF-CIAT, which will address especially the integration and links of the BGBD with other initiatives and programmes within TSBF-CIAT.

19. Reporting and proper management within each participating country will be guaranteed by two national committees; the Project Implementation Committee and the National Project Advisory Committee. The National Advisory Committee will include representatives of ministries and other national/international organizations (governmental and NGOs) concerned with agricultural development and biodiversity conservation. This committee will oversee project activities and help make the links between stakeholders at the different levels, particularly with the decision takers at governmental level. The Project Implementation Committee, chaired by the hosting institution will include scientists, extensionists, NGOs and farmer groups with the specific responsibility of implementing project activities.

xxxiii. Project Cost and Financing

20. Table 3 presents a summary of expected financing sources for the project as presented in the Project Document. The GEF provides US$ 9,029,770 of external financing to the project. This puts the project in the Full-Size Project category. The project is expected to mobilize another US$ 7,438,678in co-financing, mostly from Governments and co-executing institutions . Table 3 also summarizes expected costs per component and financing sources.

Table 3. Estimated project costs per component and financing source

Component	Co-financing	Other	GEF	TOTAL	%
Comp I: …			$ 1141.685		
Comp II: …			$ 2822.443		
Comp III: …			$ 2477.291		
Comp IV: …			$ 863.317		
Comp V: …			$ 1725.034		
TSBF					
PDF A		25,000			
PDF B		248,000			
Sub totals		**273,000**	**$ 9,029,770**		
Total Project Financing				**25,971,124**	**100**

Source: Project Document (11 June 2002)

21. The most recent Project Implementation Review (PIR) for fiscal year 2011 reports that by 30 June 2011 the project had effectively disbursed US$8,983,968 of the GEF grant to UNEP – approximately 99 percent. By then, the project had mobilized over US$9,885,182 in co-financing.

xxxiv. Project Implementation Issues

22. The project was submitted for CEO endorsement of Tranche 2 on 7 September 2005. The Secretariat recommended it for CEO endorsement without any comments. However the GEFSEC placed project on hold due to the lack of financial resources. This delayed the start of Tranche II implementation which was only approved by the CEO GEF on 8 February 2006.

23. Further as reported in the PIR for FY2010, the implementation of the activities in the Country Project Components was delayed at the start of the second tranche, mainly because of the additional time required to establish new and detailed agreements with the executing institutions of the country project components and subsequent delays in transfer of funds. Because of this it was not feasible to adhere to the original end date of the project of April 30, 2009. A no-cost extension to the end of August 2010 was requested and approved.

24. The human resources and scientific capacity in some of the participating countries was limited and so even though the project incorporated some short term training courses, the more developed countries had greater comparative advantage over them.

25. A Mid-term evaluation of the project was conducted by the UNEP Evaluation and Oversight Unit in June 2005. The main issues identified at that time were: Data sharing turned out to be a problem, the magnitude of which was underestimated at project inception; inappropriate know-how in the field of biometrics in some countries and late involvement of experts in this field harmed quality of outputs; National budgets and expenditure, and project activities were poorly linked which may have caused hidden budget deficits, as the budget-cum-work plan structure at the time might have allowed such developments to go unnoticed.

TERMS OF REFERENCE FOR THE EVALUATION

xxxv. Objective and Scope of the Evaluation

26. In line with the UNEP Evaluation Policy[21], the UNEP Evaluation Manual[22] and the Guidelines for GEF Agencies in Conducting Terminal Evaluations[23], the terminal evaluation of the project "Conservation and Sustainable Management of Below Ground Biodiversity (BGBD)" is undertaken at the end of the project to assess project performance (in terms of relevance, effectiveness and efficiency), and determine outcomes and impacts (actual and potential) stemming from the project, including their sustainability. The evaluation has two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote learning, feedback, and knowledge sharing through results and lessons learned among UNEP, Tropical Soil Biology and Fertility Institute of CIAT, the selected universities in partner countries and the GEF and their partners. Therefore, the evaluation will identify lessons of operational relevance for future project formulation and implementation. It will focus on the following sets of **key questions**, based on the project's intended outcomes, which may be expanded by the consultant as deemed appropriate:

(a) How successful was the project in establishing internationally accepted standard methods for characterization and evaluation of BGBD, including a set of indicators for BGBD loss?

(b) How successful was the project in creating an inventory and evaluation of BGBD in the benchmark sites?

(c) To what extent was the project successful in creating sustainable and replicable management practices for BGBD conservation in the 7 countries?

(d) To what extent did the project improve capacity of relevant institutions and stakeholders to implement conservation management of BGBD in a sustainable and efficient manner in and beyond the participating countries?

(e) How successful was the project in enabling global information exchange network for BGBD?

(f) How successful was the project in enhancing BGBD conservation through recommendations of alternative land use practices and an advisory support system?

(g) To what extent did the provision of an advisory support system for BGBD conservation improve decision making for stakeholders, particularly policy makers?

xxxvi. Overall Approach and Methods

27. The terminal evaluation of the Project "Conservation and Sustainable Management of Below Ground Biodiversity (BGBD)" will be conducted by an independent consultant under the overall responsibility and management of the UNEP Evaluation Office (Nairobi), in consultation with the UNEP GEF Coordination Office (Nairobi).

28. It will be an in-depth evaluation using a participatory approach whereby key stakeholders are kept informed and consulted throughout the evaluation process. Both quantitative and qualitative evaluation methods will be used to determine project achievements against the expected outputs, outcomes and impacts.

29. The findings of the evaluation will be based on the following:

(a) A **desk review** of project documents[24] including, but not limited to:

- Relevant background documentation, inter alia UNEP and GEF policies, strategies and programmes pertaining to BGBD conservation;
- Project design documents; Annual Work Plans and Budgets or equivalent, revisions to the logical framework and project financing;
- Project reports such as progress and financial reports from countries to the EA and from the EA to UNEP; Steering Committee meeting minutes; annual Project Implementation Reviews and relevant correspondence;
- Project completion report;
- The Mid-term Evaluation report;
- Documentation related to project outputs

(b) **Interviews**[25] with:

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21 http://www.unep.org/eou/StandardsPolicyandPractices/UNEPEvaluationPolicy/tabid/3050/language/en-US/Default.aspx

22 http://www.unep.org/eou/StandardsPolicyandPractices/UNEPEvaluationManual/tabid/2314/language/en-US/Default.aspx

23 http://www.thegef.org/gef/sites/thegef.org/files/documents/TE_guidelines7-31.pdf

24 Documents to be provided by the UNEP and DEPI are listed in Annex 6.

25 Face-to-face or through any other appropriate means of communication

- Project management and execution support;
- UNEP Task Manager (Rome) and Fund Management Officer (Nairobi);
- Country lead execution partners and other relevant partners;
- Relevant staff of GEF Secretariat;
- Representatives of other multilateral agencies (e.g. CIAT-TSBF, FAO) and other relevant organisations.

(c) **Country visits.** The evaluation consultant will visit Kenya, Brazil and Mexico.

xxxvii. Key Evaluation principles

30. Evaluation findings and judgements should be based on **sound evidence and analysis**, clearly documented in the evaluation report. Information will be triangulated (i.e. verified from different sources) to the extent possible, and when verification was not possible, the single source will be mentioned[26]. Analysis leading to evaluative judgements should always be clearly spelled out.

31. The evaluation will assess the project with respect to **a minimum set of evaluation criteria** grouped in four categories: (1) Attainment of objectives and planned results, which comprises the assessment of outputs achieved, relevance, effectiveness and efficiency and the review of outcomes towards impacts; (2) Sustainability and catalytic role, which focuses on financial, socio-political, institutional and ecological factors conditioning sustainability of project outcomes, and also assesses efforts and achievements in terms of replication and up-scaling of project lessons and good practices; (3) Processes affecting attainment of project results, which covers project preparation and readiness, implementation approach and management, stakeholder participation and public awareness, country ownership/driven-ness, project finance, UNEP supervision and backstopping, and project monitoring and evaluation systems; and (4) Complementarity with the UNEP strategies and programmes. The lead consultant can propose other evaluation criteria as deemed appropriate.

32. **Ratings**. All evaluation criteria will be rated on a six-point scale. However, complementarity of the project with the UNEP strategies and programmes is not rated. Annex 3 provides detailed guidance on how the different criteria should be rated and how ratings should be aggregated for the different evaluation criterion categories.

33. In attempting to attribute any outcomes and impacts to the project, the evaluator should consider the difference between **what has happened with** and **what would have happened without** the project. This implies that there should be consideration of the baseline conditions and trends in relation to the intended project outcomes and impacts. This also means that there should be plausible evidence to attribute such outcomes and impacts to the actions of the project. Sometimes, adequate information on baseline conditions and trends is lacking. In such cases this should be clearly highlighted by the evaluators, along with any simplifying assumptions that were taken to enable the evaluator to make informed judgements about project performance.

34. As this is a terminal evaluation, particular attention should be given to learning from the experience. Therefore, **the "why?" question** should be at front of the consultant's mind all through the evaluation exercise. This means that the consultant needs to go beyond the assessment of "what" the project performance was, and make a serious effort to provide a deeper understanding of "why" the performance was as it was, i.e. of processes affecting attainment of project results (criteria under category 3). This should provide the basis for the lessons that can be drawn from the project. In fact, the usefulness of the evaluation will be determined to a large extent by the capacity of the consultant to explain "why things happened" as they happened and are likely to evolve in this or that direction, which goes well beyond the mere assessment of "where things stand" today.

xxxviii. Evaluation criteria

xxxix. Attainment of Objectives and Planned Results

35. The evaluation should assess the relevance of the project's objectives and the extent to which these were effectively and efficiently achieved or are expected to be achieved.

(a) *Achievement of Outputs and Activities:* Assess, for each component, the project's success in producing the programmed outputs as presented in Table A1.1 (Annex 1), both in quantity and quality, as well as their usefulness and timeliness. Briefly explain the degree of success of the project in achieving its different outputs, cross-referencing as needed to more detailed explanations provided under Section 3 (which covers the processes affecting attainment of project objectives). The achievements under the regional and national demonstration projects will receive particular attention.

(b) *Relevance*: Assess, in retrospect, whether the project's objectives and implementation strategies were consistent with: i) Sub-regional environmental issues and needs; ii) the UNEP mandate and policies at the time of design and implementation; and iii) the relevant GEF focal areas, strategic priorities and operational programme(s).

(c) *Effectiveness:* Appreciate to what extent the project has achieved its main objective **to *enhance awareness, knowledge and understanding of below-ground biological diversity important to sustainable agricultural production in tropical landscapes by the demonstration of methods for conservation and sustainable***

[26] Individuals should not be mentioned by name if anonymity needs to be preserved.

management' and its component objectives as presented in Table 2 above. To measure achievement, use as much as appropriate the indicators for achievement proposed in the Logical Framework Matrix (Logframe) of the project, adding other relevant indicators as appropriate. Briefly explain what factors affected the project's success in achieving its objectives, cross-referencing as needed to more detailed explanations provided under Section 3.

(d) *Efficiency*: Assess the cost-effectiveness and timeliness of project execution. Describe any cost- or time-saving measures put in place in attempting to bring the project to a successful conclusion within its programmed budget and (extended) time. Analyse how delays, if any, have affected project execution, costs and effectiveness. Wherever possible, compare the cost and time over results ratios of the project with that of other similar projects. Give special attention to efforts by the project teams to make use of / build upon pre-existing institutions, agreements and partnerships, data sources, synergies and complementarities with other initiatives, programmes and projects etc. to increase project efficiency.

(e) *Review of Outcomes to Impacts (ROtI)*: Reconstruct the logical pathways from project outputs over achieved objectives towards impacts, taking into account performance and impact drivers, assumptions and the roles and capacities of key actors and stakeholders, using the methodology presented in the GEF Evaluation Office's ROtI Practitioner's Handbook[27] (summarized in Annex 7 of the TORs). Appreciate to what extent the project has to date contributed, and is likely in the future to further contribute to changes in stakeholder behaviour as regards: i) characterization and evaluation of BGBD, including the measuring of BGBD loss ii) global information exchange on BGBD iii) management practices for BGBD conservation; and the likelihood of these leading to enhanced conservation and sustainable management of below-ground biodiversity.

xl. Sustainability and catalytic role

36. **Sustainability** is understood as the probability of continued long-term project-derived results and impacts after the external project funding and assistance ends. The evaluation will identify and assess the key conditions or factors that are likely to undermine or contribute to the persistence of benefits. Some of these factors might be direct results of the project while others will include contextual circumstances or developments that are not under control of the project but that may condition sustainability of benefits. The evaluation should ascertain to what extent follow-up work has been initiated and how project results will be sustained and enhanced over time. Application of the ROtI method will assist in the evaluation of sustainability.

37. Four aspects of sustainability will be addressed:

(a) *Socio-political sustainability.* Are there any social or political factors that may influence positively or negatively the sustenance of project results and progress towards impacts? Is the level of ownership by the main national and regional stakeholders sufficient to allow for the project results to be sustained? Are there sufficient government and stakeholder awareness, interests, commitment and incentives to execute, enforce and pursue the programmes, plans, agreements, monitoring systems etc. prepared and agreed upon under the project?

(b) *Financial resources.* To what extent are the continuation of project results and the eventual impact of the project dependent on continued financial support? What is the likelihood that adequate financial resources[28] will be or will become available to implement the programmes, plans, agreements, monitoring systems etc. prepared and agreed upon under the project? Are there any financial risks that may jeopardize sustenance of project results and onward progress towards impact?

(c) *Institutional framework.* To what extent is the sustenance of the results and onward progress towards impact dependent on issues relating to institutional frameworks and governance? How robust are the institutional achievements such as governance structures and processes, policies, sub-regional agreements, legal and accountability frameworks etc. required to sustaining project results and to lead those to impact on human behaviour and environmental resources?

(d) *Environmental sustainability*. Are there any environmental factors, positive or negative, that can influence the future flow of project benefits? Are there any project outputs or higher level results that are likely to affect the environment, which, in turn, might affect sustainability of project benefits?

38. **Catalytic Role and Replication**. The *catalytic role* of GEF-funded interventions is embodied in their approach of supporting the creation of an enabling environment and of investing in pilot activities which are innovative and showing how new approaches can work. UNEP and the GEF also aim to support activities that upscale new approaches to a national, regional or global level, with a view to achieve sustainable global environmental benefits. The evaluation will assess the catalytic role played by this project, namely to what extent the project has:

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27 http://www.thegef.org/gef/sites/thegef.org/files/documents/Impact_Eval-Review_of_Outcomes_to_Impacts-RotI_handbook.pdf

28 Those resources can be from multiple sources, such as the public and private sectors, income generating activities, other development projects etc.

(a) *catalyzed behavioural changes* in terms of use and application by the relevant stakeholders of: i) technologies and approaches show-cased by the demonstration projects; ii) strategic programmes and plans developed; and iii) assessment, monitoring and management systems established at a national and sub-regional level;

(b) provided *incentives* (social, economic, market based, competencies etc.) to contribute to catalyzing changes in stakeholder behaviour;

(c) contributed to *institutional changes.* An important aspect of the catalytic role of the project is its contribution to institutional uptake or mainstreaming of project-piloted approaches in the regional and national demonstration projects;

(d) contributed to *policy changes* (on paper and in implementation of policy);

(e) contributed to sustained follow-on financing (*catalytic financing*) from Governments, the GEF or other donors;

(f) created opportunities for particular individuals or institutions ("*champions*") to catalyze change (without which the project would not have achieved all of its results).

39. *Replication*, in the context of GEF projects, is defined as lessons and experiences coming out of the project that are replicated (experiences are repeated and lessons applied in different geographic areas) or scaled up (experiences are repeated and lessons applied in the same geographic area but on a much larger scale and funded by other sources). The evaluation will assess the approach adopted by the project to promote replication effects and appreciate to what extent actual replication has already occurred or is likely to occur in the near future. What are the factors that may influence replication and scaling up of project experiences and lessons?

xli. Processes affecting attainment of project results

40. **Preparation and Readiness**. Were the project's objectives and components clear, practicable and feasible within its timeframe? Were the capacities of executing agencies properly considered when the project was designed? Was the project document clear and realistic to enable effective and efficient implementation? Were the partnership arrangements properly identified and the roles and responsibilities negotiated prior to project implementation? Were counterpart resources (funding, staff, and facilities) and enabling legislation assured? Were adequate project management arrangements in place? Were lessons from other relevant projects properly incorporated in the project design? Were lessons learned and recommendations from Steering Committee meetings adequately integrated in the project approach? What factors influenced the quality-at-entry of the project design, choice of partners, allocation of financial resources etc.?

41. **Implementation Approach and Adaptive Management**. This includes an analysis of approaches used by the project, its management framework, the project's adaptation to changing conditions (adaptive management), the performance of the implementation arrangements and partnerships, relevance of changes in project design, and overall performance of project management. The evaluation will:

(a) Ascertain to what extent the project implementation mechanisms outlined in the project document have been followed and were effective in delivering project outputs and outcomes. Were pertinent adaptations made to the approaches originally proposed?

(b) Assess the role and performance of the units and committees established and the project execution arrangements at all levels;

(c) Evaluate the effectiveness and efficiency of project management by the EA and how well the management was able to adapt to changes during the life of the project;

(d) Assess the extent to which project management responded to direction and guidance provided by the Steering Committee and IA supervision recommendations;

(e) Identify administrative, operational and/or technical problems and constraints that influenced the effective implementation of the project, and how the project partners tried to overcome these problems;

(f) Assess the extent to which MTE recommendations were followed in a timely manner.

42. **Stakeholder**[29] **Participation and Public Awareness**. The term stakeholder should be considered in the broadest sense, encompassing project partners, government institutions, private interest groups, local communities etc. The assessment will look at three related and often overlapping processes: (1) information dissemination between stakeholders, (2) consultation

[29] Stakeholders are the individuals, groups, institutions, or other bodies that have an interest or stake in the outcome of the project. The term also applies to those potentially adversely affected by the project.

between stakeholders, and (3) active engagement of stakeholders in project decision making and activities. The evaluation will specifically assess:

(a) the approach(es) used to identify and engage stakeholders in project design and implementation. What were the strengths and weaknesses of these approaches with respect to the project's objectives and the stakeholders' motivations and capacities? What was the achieved degree and effectiveness of collaboration and interactions between the various project partners and stakeholders during the course of implementation of the project?

(b) the degree and effectiveness of any public awareness activities that were undertaken during the course of implementation of the project; or that are built into the assessment methods so that public awareness can be raised at the time the assessments will be conducted;

(c) how the results of the project (the new standard methods for characterization and evaluation of BGBD, the international information system on BGBD etc) engaged key stakeholders in improved management and conservation of BGBD.

43. The ROtI analysis should assist the consultant in identifying the key stakeholders and their respective roles, capabilities and motivations in each step of the causal pathway from activities to achievement of outputs and objectives to impact.

44. **Country Ownership and Driven-ness.** The evaluation will assess the performance of the Governments of the countries involved in the project, namely:

(a) in how the Governments have assumed responsibility for the project and provided adequate support to project execution, including the degree of cooperation received from the various contact institutions in the countries involved in the project and the timeliness of provision of counter-part funding to project activities;

(b) to what extent the political and institutional framework of the participating countries has been conducive to project performance. Look, in particular, at the extent of the political commitment to enforce (sub-) regional agreements promoted under the project;

(c) to what extent the Governments have promoted the participation of communities and their non-governmental organisations in the project; and

(d) how responsive the Governments were to TSBF coordination and guidance, to UNEP's supervision and Mid-Term Evaluation recommendations.

45. **Financial Planning and Management**. Evaluation of financial planning requires assessment of the quality and effectiveness of financial planning and control of financial resources throughout the project's lifetime. The assessment will look at actual project costs by activities compared to budget (variances), financial management (including disbursement issues), and co-financing. The evaluation will:

(a) Verify the application of proper standards (clarity, transparency, audit etc.) and timeliness of financial planning, management and reporting to ensure that sufficient and timely financial resources were available to the project and its partners;

(b) Appreciate other administrative processes such as recruitment of staff, procurement of goods and services (including consultant), preparation and negotiation of cooperation agreements etc. to the extent that these might have influenced project performance;

(c) Present to what extent co-financing has materialized as expected at project approval (see Table 1). Report country co-financing to the project overall, and to support project activities at the national level in particular. The evaluation will provide a breakdown of final actual costs and co-financing for the different project components (see tables in Annex 4).

(d) Describe the resources the project has leveraged since inception and indicate how these resources are contributing to the project's ultimate objective. Leveraged resources are additional resources—beyond those committed to the project itself at the time of approval—that are mobilized later as a direct result of the project. Leveraged resources can be financial or in-kind and they may be from other donors, NGO's, foundations, governments, communities or the private sector.

46. Analyse the effects on project performance of any irregularities in procurement, use of financial resources and human resource management, and assess the adequacy of measures taken by the EA or IA to prevent and/or respond to such irregularities.

47. **UNEP Supervision and Backstopping.** The purpose of supervision is to verify the quality and timeliness of project execution in terms of finances, administration and achievement of outputs and outcomes, in order to identify and recommend ways to deal with problems which arise during project execution. Such problems may be related to project management but may also involve technical/institutional substantive issues in which UNEP has a major contribution to make. The evaluators should assess the effectiveness of supervision and administrative and financial support provided by UNEP including:

(a) The adequacy of project supervision plans, inputs and processes;

(b) The emphasis given to outcome monitoring (results-based project management);

(c) The realism and candour of project reporting and ratings (i.e. are PIR ratings an accurate reflection of the project realities and risks);

(d) The quality of documentation of project supervision activities; and

(e) Financial, administrative and other fiduciary aspects of project implementation supervision.

48. **Monitoring and Evaluation**. The evaluation will include an assessment of the quality, application and effectiveness of project monitoring and evaluation plans and tools, including an assessment of risk management based on the assumptions and risks identified in the project document. The evaluation will appreciate how information generated by the M&E system during project implementation was used to adapt and improve project execution, achievement of outcomes and ensuring sustainability. M&E is assessed on three levels:

(a) *M&E Design*. Projects should have sound M&E plans to monitor results and track progress towards achieving project objectives. An M&E plan should include a baseline (including data, methodology, etc.), SMART indicators and data analysis systems, and evaluation studies at specific times to assess results. The time frame for various M&E activities and standards for outputs should have been specified. The evaluators should use the following questions to help assess the M&E design aspects:

- Quality of the project logframe as a planning and monitoring instrument; analyse/compare logframe in Project Document, revised logframe (2008) and logframe used in Project Implementation Review reports to report progress towards achieving project objectives;
- SMART-ness of indicators: Are there specific indicators in the logframe for each of the project objectives? Are the indicators measurable, attainable (realistic) and relevant to the objectives? Are the indicators time-bound?
- Adequacy of baseline information: To what extent has baseline information on performance indicators been collected and presented in a clear manner? Was the methodology for the baseline data collection explicit and reliable?
- Arrangements for monitoring: Have the responsibilities for M&E activities been clearly defined? Were the data sources and data collection instruments appropriate? Was the frequency of various monitoring activities specified and adequate? In how far were project users involved in monitoring?
- Arrangements for evaluation: Have specific targets been specified for project outputs? Has the desired level of achievement been specified for all indicators of objectives and outcomes? Were there adequate provisions in the legal instruments binding project partners to fully collaborate in evaluations?
- Budgeting and funding for M&E activities: Determine whether support for M&E was budgeted adequately and was funded in a timely fashion during implementation.

(b) *M&E Plan Implementation*. The evaluation will verify that:

- the M&E system was operational and facilitated timely tracking of results and progress towards projects objectives throughout the project implementation period;
- annual project reports and Progress Implementation Review (PIR) reports were complete, accurate and with well justified ratings;
- the information provided by the M&E system was used during the project to improve project performance and to adapt to changing needs;
- projects had an M&E system in place with proper training, instruments and resources for parties responsible for M&E.

xlii. Complementarities with UNEP strategies and programmes

49. UNEP aims to undertake GEF funded projects that are aligned with its own strategies. The evaluation should present a brief narrative on the following issues:

(a) *Linkage to UNEP's Expected Accomplishments and POW 2010-2011.* The UNEP MTS specifies desired results in six thematic focal areas. The desired results are termed Expected Accomplishments. Using the completed ROtI analysis, the evaluation should comment on whether the project makes a tangible contribution to any of the Expected Accomplishments specified in the UNEP MTS. The magnitude and extent of any contributions and the causal linkages should be fully described. Whilst it is recognised that UNEP GEF projects designed prior to the production of the UNEP Medium Term Strategy (MTS)[30]/ Programme of Work (POW) 2010/11 would not

[30] http://www.unep.org/PDF/FinalMTSGCSS-X-8.pdf

necessarily be aligned with the Expected Accomplishments articulated in those documents, complementarities may still exist.

(b) *Alignment with the Bali Strategic Plan (BSP)*[31]. The outcomes and achievements of the project should be briefly discussed in relation to the objectives of the UNEP BSP.

(c) *Gender*. Ascertain to what extent project design, implementation and monitoring have taken into consideration: (i) possible gender inequalities in access to and the control over natural resources; (ii) specific vulnerabilities of women and children to environmental degradation or disasters; and (iii) the role of women in mitigating or adapting to environmental changes and engaging in environmental protection and rehabilitation. Appreciate whether the intervention is likely to have any lasting differential impacts on gender equality and the relationship between women and the environment. To what extent do unresolved gender inequalities affect sustainability of project benefits?

(d) *South-South Cooperation.* This is regarded as the exchange of resources, technology, and knowledge between developing countries. Briefly describe any aspects of the project that could be considered as examples of South-South Cooperation.

xliii. The Consultants' Team

50. For this evaluation, one independent consultant will be hired. The consultant will posses the following expertise and experience:

(a) Evaluation of environmental projects

(b) Expertise in Below Ground Biodiversity

(c) Extensive knowledge biodiversity management and sustainable agricultural production.

51. The **Consultant** will be responsible for coordinating the data collection and analysis phase of the evaluation, and preparing the main report. He will ensure that all evaluation criteria are adequately covered.

52. By undersigning the service contract with UNEP/UNON, the consultant certifies that he has not been associated with the design and implementation of the project in any way which may jeopardize their independence and impartiality towards project achievements and project partner performance. In addition, he will not have any future interests (within six months after completion of their contract) with the project's executing or implementing units.

xliv. Evaluation Deliverables and Review Procedures

53. The Consultant will prepare an **inception report** containing a thorough review of the project design quality and the evaluation framework. The review of design quality will cover the following aspects:

- Project relevance (see paragraph 36 (b));
- A desk-based Theory of Change of the project (see Annex 7 - ROtI analysis);
- Sustainability consideration (see paragraphs 37-38) and measures planned to promote replication and upscaling (see paragraph 40);
- Preparation and readiness (see paragraph 41);
- Financial planning (see paragraph 46);
- M&E design (see paragraph 49(a));
- Complementarities with UNEP strategies and programmes (see paragraph 50);
- Using the above, complete an assessment of the overall quality of the project design (see Annex 8);
- The evaluation framework should summarize the information available from project documentation against each of the main evaluation parameters. Any gaps in information should be identified and methods for additional data collection, verification and analysis should be specified. A draft schedule for the evaluation process should be presented.

The evaluation framework will present in further detail the evaluation questions under each criterion with their respective indicators and data sources. The inception report will be submitted for review by the Evaluation Office before the evaluation team conducts any field visits.

[31] http://www.unep.org/GC/GC23/documents/GC23-6-add-1.pdf

54. **The main evaluation report** should be brief (no longer than 35 pages – excluding the executive summary and annexes), to the point and written in plain English. The report will follow the annotated Table of Contents outlined in Annex 2. It must explain the purpose of the evaluation, exactly what was evaluated and the methods used (with their limitations). The report will present evidence-based and balanced findings, consequent conclusions, lessons and recommendations, which will be cross-referenced to each other. The report should be presented in a way that makes the information accessible and comprehensible. Any dissident views in response to evaluation findings will be appended in footnote or annex as appropriate.

55. **Report summary**. The Consultant will prepare a 15-slide presentation summarizing the key findings, lessons learned and recommendations of the evaluation. This presentation will be shared with selected key partners by 5 April 2013. The purpose of this presentation is to engage the main project partners in a discussion on the evaluation results.

56. **Review of the draft evaluation report**. The Consultant will submit the zero draft report latest by 25 March 2013 to the UNEP EO and revise the draft following the comments and suggestions made by the EO. The EO will then share the first draft report with the UNEP GEF Coordination Office (Nairobi) and the UNEP Division for Environmental Policy Implementation (DEPI). The UNEP Task Manager will forward the first draft report to the other project stakeholders, in particular the Tropical Soil Biology and Fertility Institute of CIAT for review and comments. Stakeholders may provide feedback on any errors of fact and may highlight the significance of such errors in any conclusions. Comments would be expected within two weeks after the draft report has been shared. Any comments or responses to the draft report will be sent to the UNEP EO for collation. The EO will provide the comments to the Consultant for consideration in preparing the final draft report. The Consultant will submit the final draft report no later than 2 weeks after reception of stakeholder comments. The Consultant will prepare a **response to comments** providing a list of the comments that are in contradiction with the findings of the evaluation team and could therefore not be accommodated in the final report, with a clear explanation why. This response will be shared by the EO with the interested stakeholders to ensure full transparency.

57. Consultations will be held between the consultant, EO staff, the UNEP/GEF, UNEP/ DEPI, and key members of the project execution team. These consultations will seek feedback on the proposed recommendations and lessons.

58. **Submission of the final Terminal Evaluation report**. The final report shall be submitted by Email to:

Segbedzi Norgbey, Head
UNEP Evaluation Office
Email: segbedzi.norgbey@unep.org

59. The Head of Evaluation will share the report with the following persons:

Maryam Niamir-Fuller, Director
UNEP/GEF Coordination Office
Email: maryam.niamir-fuller@unep.org

Ibrahim Thiaw, Director
UNEP/DEPI
Email: Ibrahim.Thiaw@unep.org

Marieta Sakalian
UNEP/DEPI-GEF
Senior Programme Management /Liaison Officer (CGIAR/FAO), Biodiversity
Marieta.Sakalian@unep.org

60. The final evaluation report will be published on the UNEP Evaluation Office web-site www.unep.org/eou and may be printed in hard copy. Subsequently, the report will be sent to the GEF Office of Evaluation for their review, appraisal and inclusion on the GEF website.

61. As per usual practice, the UNEP EO will prepare a **quality assessment** of the zero draft and final draft report, which is a tool for providing structured feedback to the evaluation consultant. The quality of the report will be assessed and rated against both GEF and UNEP criteria as presented in Annex 5.

62. The UNEP Evaluation Office will also prepare a **commentary** on the final evaluation report, which presents the EO ratings of the project based on a careful review of the evidence collated by the evaluation team and the internal consistency of the report. These ratings are the final ratings that the UNEP Evaluation Office will submit to the GEF Office of Evaluation.

xlv. Resources and Schedule of the Evaluation

63. This Terminal Evaluation will be undertaken by one independent evaluation consultant contracted by the UNEP Evaluation Office. The consultant will work under the overall responsibility of the UNEP Evaluation Office and they will consult with the EO on any procedural and methodological matters related to the evaluation. It is, however, the consultant's individual responsibility to arrange for their travel, obtain documentary evidence, meetings with stakeholders, field visits, and any other logistical matters related to their assignment. The UNEP Task Manager, DEPI Country Offices and regional and national project staff will provide logistical support (introductions, meetings, transport, lodging etc.) for the country visits where necessary, allowing the consultant to conduct the evaluation as efficiently and independently as possible.

64. The **Consultant** will be hired for 9 weeks, between 9 January and 30 April 2012. (S)He will travel to Kenya, Brazil and Mexico.

xlvi. Schedule of Payment

65. The consultant will be hired under an individual Special Service Agreement (SSA) covering the consultant's fees but which is NOT inclusive of all expenses such as airfares, in-country travel, accommodation, incidental and terminal expenses. Air tickets will be paid separately by UNEP and 75% of the DSA for each authorised travel mission will be paid up front. Local in-country travel and communication costs will be reimbursed on the production of acceptable receipts. Terminal expenses and residual DSA entitlements (25%) will be paid after mission completion.

66. The Consultant will receive 20% of the honorarium on portion of his/her fee upon submission of a satisfactory inception report, 40% upon acceptance of a draft report deemed complete and of acceptable quality by the EO. The remainder will be paid upon satisfactory completion of the work.

67. In case the consultant is not able to provide the deliverables in accordance with these TORs, in line with the expected quality standards by the UNEP Evaluation Office, payment may be withheld at the discretion of the Head of the Evaluation Office until the consultant has improved the deliverables to meet UNEP's quality standards.

68. If the consultant fails to submit a satisfactory final product to UNEP in a timely manner, i.e. within one month after the end date of their contract, the Evaluation Office reserves the right to employ additional human resources to finalize the report, and to reduce the consultant' fees by an amount equal to the additional costs borne by the Evaluation Office to bring the report up to standard.

Annex 1 (ToR). Project outputs and demonstration projects

Table A1.1. Project components and outputs

Component	Outputs
Component I **Standardized methods standard methods for characterization and evaluation of BGBD**	Output 1.1: A set of indicators for BGBD loss
	Output 1.2: Internationally accepted standard methods for characterization and evaluation of BGBD
Component II (a) **Inventory and evaluation of BGBD in benchmark sites**	Output 2.1: Land use maps of benchmark sites characterised with respect to agrobiodeiversity off both above-ground and below-ground
	Output 2.2: An inventory of BCGD in benchmark sites
Component II (b) A global information exchange network for BGBD	Output 2.3: National BGBD Databases in each of the five countries which have been made available to the national stakeholders.
	Output 2.4: An international information system on BGBD freely accessible through the World Wide Web.
Component III Management practices for BGBD conservation	Output 3.1: Demonstration plots of different land uses and management practices, on the selected benchmark sites in 7 countries
	Output 3.2: Sustainable and replicable management practices for BGBD conservation
Component IV Recommendations of alternative land use practices, and policy advisory system,	Output 4.1: An advisory support system, for policies that will enhance the conservation of BGBD
Component V Capacity Building and Public Awareness	Output 5.1: Enhanced capacity of all relevant institutions and stakeholders to implement conservation and management of BGBD Output 5.2: Increased awareness among different stakeholders of BGBD

Annex 2(a) (ToR): Annotated Table of Contents of the Inception Report

Section	Notes
1. Introduction	Brief note of documents consulted in preparing the inception report.
2. Review of Project Design	Complete the Template for assessment of the quality of project design given in Annex 5 of the Terms of Reference. **Data sources:** background information on context (UNEP or GEF programme etc.), first phase of project – if any, project document, logical framework.
3. Theory of Change Analysis	The section should start with a brief description of the project context. The 'theory of change' should be developed using the process described in Annex 7 (Introduction to Theory of Change/Impact pathways, the ROtI Method and the ROtI results score sheet) of the TORs. The final ToC diagram can be designed on the basis of figure 3 in Annex 7. Outputs do not necessarily occur at the beginning of the process, additional outputs may occur at different stages of the process (for example to move from one intermediate state to another). The diagram can be represented horizontally or vertically. **Data sources**: project document, logical framework and a review of other project documents.
4. Evaluation Process Plan	This section should include: - Detailed evaluation questions (including new questions raised by review of project design and theory of change analysis). - Data Sources and Indicators - List of individuals to be consulted. - Distribution of roles and responsibilities among evaluation consultants (in case of larger evaluation teams). - Revised logistics (dates of travel and key evaluation milestones). The framework can be presented as a table for ease of use, showing which data sources will be used to answer which questions. **Data sources**: review of all project documents. Discussion with project team on logistics.

Annex 2 (b) (ToR)**: Annotated Table of Contents of the Main Report**

Project Identification Table	An updated version of the table in Section I.A. of these TORs
Executive Summary	Overview of the main findings, conclusions and recommendations of the evaluation. It should encapsulate the essence of the information contained in the report to facilitate dissemination and distillation of lessons. The main points for each evaluation parameter should be presented here (with a summary ratings table), as well as the most important lessons and recommendations. Maximum 4 pages.
I. Evaluation Background	
A. Context	A. Overview of the broader institutional and country context, in relation to the project's objectives.
B. The Project	B. Presentation of the project: rationale, objectives, components, intervention areas and target groups, milestones in design, implementation and completion, implementation arrangements and main partners, financing (amounts and sources), modifications to design before or during implementation.
C. Evaluation objectives, scope and methodology	C. Presentation of the evaluation's purpose, evaluation criteria and key questions, evaluation timeframe, data collection and analysis instruments used, places visited, types of stakeholders interviewed, and limitations of the evaluation.
II. Project Performance and Impact A. Attainment of objectives and planned results B. Sustainability and catalytic role C. Processes affecting attainment of project results D. Complementarity with UNEP and DEPI programmes and	This section is organized according to the 4 categories of evaluation criteria (see section D of these TORs) and provides factual evidence relevant to the questions asked and sound analysis and interpretations of such evidence. This is the main substantive section of the report. Ratings are provided at the end of the assessment of each evaluation criterion.

strategies	
III. Conclusions and Recommendations	
A. Conclusions	This section should summarize the main findings of the evaluation, told in a logical sequence from cause to effect. It is suggested to start with the positive achievements and a short explanation why these could be achieved, and, then, to present the less successful aspects of the project with a short explanation why. The conclusions section should end with the overall assessment of the project. Findings should be cross-referenced to the main text of the report (using the paragraph numbering). The overall ratings table should be inserted here (see Annex 2).
B. Lessons Learned	Lessons learned should be anchored in the main findings of the evaluation. In fact, no lessons should appear which are not based upon a conclusion of the evaluation. The number of lessons learned should be limited. Lessons learned are rooted in real project experiences, i.e. based on good practices and successes which could be replicated or derived from problems encountered and mistakes made which should be avoided in the future. Lessons learned must have the potential for wider application and use. Lessons should briefly describe the context from which they are derived and specify the contexts in which they may be useful.
C. Recommendations	As for the lessons learned, all recommendations should be anchored in the conclusions of the report, with proper cross-referencing. Recommendations are actionable proposals on how to resolve concrete problems affecting the project or the sustainability of its results. They should be feasible to implement within the timeframe and resources available (including local capacities), specific in terms of who would do what and when, and set a measurable performance target. In some cases, it might be useful to propose options, and briefly analyze the pros and cons of each option.
Annexes	These may include additional material deemed relevant by the evaluator but must include: 1. Evaluation TORs 2. The evaluation framework (second part of the inception report) 3. Evaluation program, containing the names of locations visited and the names (or functions) of people met 4. Bibliography 5. Summary co-finance information and a statement of project expenditure by activity (See annex of these TORs) 6. The review of project design (first part of the inception report) 7. Technical working paper 8. Brief CV of the consultant TE reports will also include any formal response/ comments from the project management team and/ or the country focal point regarding the evaluation findings or conclusions as an annex to the report, however, such will be appended to the report by UNEP Evaluation Office.

Examples of UNEP GEF Terminal Evaluation Reports are available at www.unep.org/eou.

Annex 3 (ToR). Evaluation ratings

The evaluation will provide individual ratings for the evaluation criteria described in section II.D. of these TORs. Some criteria contain sub-criteria which require separate ratings (i.e. sustainability and M&E). Furthermore, an aggregated rating will be provided for Relevance, effectiveness and efficiency under the category "Attainment of project objectives and results".

Most criteria will be rated on a six-point scale as follows: Highly Satisfactory (HS); Satisfactory (S); Moderately Satisfactory (MS); Moderately Unsatisfactory (MU); Unsatisfactory (U); Highly Unsatisfactory (HU). Sustainability is rated from Highly Likely (HL) down to Highly Unlikely (HU).

In the conclusions section of the report, ratings will be presented together in a table, with a brief justification cross-referenced to the findings in the main body of the report. Please note that the order of the evaluation criteria in the table will be slightly different from the order these are treated in the main report; this is to facilitate comparison and aggregation of ratings across GEF project evaluation reports.

Criterion	Summary Assessment	Rating
A. Attainment of project objectives and results		HS → HU
1. Effectiveness		HS → HU
2. Relevance		HS → HU
3. Efficiency		HS → HU
B. Sustainability of project outcomes		HL → HU
1. Financial		HL → HU
2. Socio-political		HL → HU
3. Institutional framework		HL → HU
4. Environmental		HL → HU
C. Catalytic role		HS → HU
D. Stakeholders involvement		HS → HU
E. Country ownership / driven-ness		HS → HU
F. Achievement of outputs and activities		HS → HU
G. Preparation and readiness		HS → HU
H. Implementation approach		HS → HU
I. Financial planning and management		HS → HU
J. Monitoring and Evaluation		HS → HU
1. M&E Design		HS → HU
2. M&E Plan Implementation		HS → HU
3. Budgeting and funding for M&E activities		HS → HU
K. UNEP and DEPI Supervision and backstopping		HS → HU
1. UNEP		HS → HU
2. DEPI		HS → HU

Rating of Attainment of project objectives and results. A compound rating is given to the category based on the assessment of relevance, effectiveness and efficiency. This aggregated rating is not a simple average of the separate ratings given to the evaluation criteria, but an overall judgement by the consultant. Relevance and effectiveness, however, will be considered as critical criteria. This means that the aggregated rating for Attainment of objectives and results may not be higher than the lowest rating on either of these two criteria.

Ratings on sustainability. According to the GEF Office of Evaluation, all the dimensions of sustainability are deemed critical. Therefore, the overall rating for sustainability will not be higher than the lowest rating on the separate dimensions.

Ratings of monitoring and evaluation. The M&E system will be rated on M&E design, M&E plan implementation, and budgeting and funding for M&E activities (the latter sub-criterion is covered in the main report under M&E design) as follows:

Highly Satisfactory (HS): There were no shortcomings in the project M&E system.

Satisfactory(S): There were minor shortcomings in the project M&E system.

Moderately Satisfactory (MS): There were moderate shortcomings in the project M&E system.

Moderately Unsatisfactory (MU): There were significant shortcomings in the project M&E system.

Unsatisfactory (U): There were major shortcomings in the project M&E system.

Highly Unsatisfactory (HU): The Project had no M&E system.

M&E plan implementation will be considered critical for the overall assessment of the M&E system. Thus, the overall rating for M&E will not be higher than the rating on M&E plan implementation.

Annex 4 (ToR)**. Project costs and co-financing tables**

Project Costs

Component/sub-component	Estimated cost at design	Actual Cost	Expenditure ratio (actual/planned)

Co-financing

Co financing (Type/Source)	IA own Financing (mill US$)		Government (mill US$)		Other* (mill US$)		Total (mill US$)		Total Disbursed (mill US$)
	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual	
– Grants									
– Loans									
– Credits									
– Equity investments									
– In-kind support									
– Other (*) - -									
ii. Totals									

* This refers to contributions mobilized for the project from other multilateral agencies, bilateral development cooperation agencies, NGOs, the private sector and beneficiaries.

Annex 5 (ToR)**. Quality Assessment of the Evaluation Report**

All UNEP evaluation reports are subject to a quality assessment by the Evaluation Office. The quality assessment is used as a tool for providing structured feedback to the evaluation consultant. The quality of the draft evaluation report is assessed and rated against the following criteria:

GEF Report Quality Criteria	UNEP EO Assessment	Rating
A. Did the report present an assessment of relevant outcomes and achievement of project objectives in the context of the focal area program indicators if applicable?		
B. Was the report consistent and the evidence complete and convincing and were the ratings substantiated when used?		
C. Did the report present a sound assessment of sustainability of outcomes?		
D. Were the lessons and recommendations supported by the evidence presented?		
E. Did the report include the actual project costs (total and per activity) and actual co-financing used?		
F. Did the report include an assessment of the quality of the project M&E system and its use for project management?		
UNEP additional Report Quality Criteria		
G. Quality of the lessons: Were lessons readily applicable in other contexts? Did they suggest prescriptive action?		
H. Quality of the recommendations: Did recommendations specify the actions necessary to correct existing conditions or improve operations ('who?' 'what?' 'where?' 'when?)'. Can they be implemented? Did the recommendations specify a goal and an associated performance indicator?		
I. Was the report well written? (clear English language and grammar)		
J. Did the report structure follow EOU guidelines, were all requested Annexes included?		
K. Were all evaluation aspects specified in the TORs adequately addressed?		
L. Was the report delivered in a timely manner		

Quality = (2*(0.3*(A + B) + 0.1*(C+D+E+F))+ 0.3*(G + H) + 0.1*(I+J+K+L))/3
The Totals are rounded and converted to the scale of HS to HU

Rating system for quality of Terminal Evaluation reports: A number rating between 1 and 6 is used for each criterion: Highly Satisfactory = 6, Satisfactory = 5, Moderately Satisfactory = 4, Moderately Unsatisfactory = 3, Unsatisfactory = 2, Highly Unsatisfactory = 1.

Annex 6 (ToR)**: Documentation list for the evaluation to be provided by the UNEP Task Manager**

- Project design documents
- Project supervision plan, with associated budget
- Correspondence related to project
- Supervision mission reports
- Steering Committee meeting documents, including agendas, meeting minutes, and any summary reports
- Project progress reports, including financial reports submitted
- Cash advance requests documenting disbursements
- Annual Project Implementation Reports (PIRs)
- Management memos related to project
- Other documentation of supervision feedback on project outputs and processes (e.g. comments on draft progress reports, etc.).
- Extension documentation. Has a project extension occurred?
- Project revision documentation.
- Budget revision documentation.
- Project Terminal Report (draft if final version not available)

Annex 7 (ToR). Introduction to Theory of Change / Impact pathways, the ROtI Method and the ROtI Results Score sheet

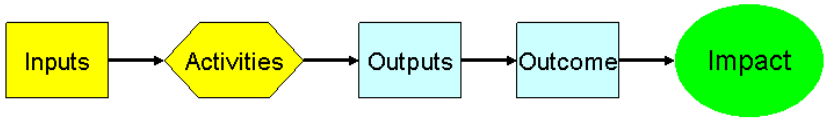
Terminal evaluations of projects are conducted at, or shortly after, project completion. At this stage it is normally possible to assess the achievement of the project's outputs. However, the possibilities for evaluation of the project's outcomes are often more limited and the feasibility of assessing project **impacts** at this time is usually severely constrained. Full impacts often accrue only after considerable time-lags, and it is common for there to be a lack of long-term baseline and monitoring information to aid their evaluation. Consequently, substantial resources are often needed to support the extensive primary field data collection required for assessing impact and there are concomitant practical difficulties because project resources are seldom available to support the assessment of such impacts when they have accrued – often several years after completion of activities and closure of the project.

Despite these difficulties, it is possible to enhance the scope and depth of information available from Terminal Evaluations on the achievement of results **through rigorous review of project progress along the pathways from outcome to impact**. Such reviews identify the sequence of conditions and factors deemed necessary for project outcomes to yield impact and assess the current status of and future prospects for results. In evaluation literature these relationships can be variously described as 'Theories of Change', Impact 'Pathways', 'Results Chains', 'Intervention logic', and 'Causal Pathways' (to name only some!).

Theory of Change (ToC) / impact pathways

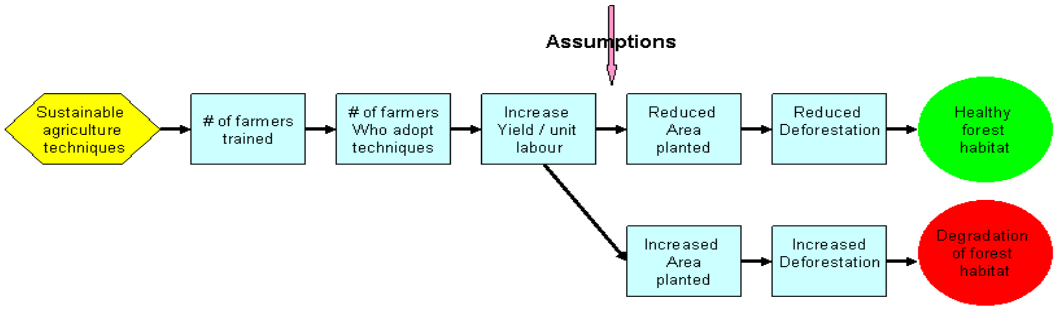
Figure 1 shows a generic impact pathway which links the standard elements of project logical frameworks in a graphical representation of causal linkages. When specified with more detail, for example including the key users of outputs, the processes (the arrows) that lead to outcomes and with details of performance indicators, analysis of impact pathways can be invaluable as a tool for both project planning and evaluation.

Figure 1. A generic results chain, which can also be termed an 'Impact Pathway' or Theory of Change.



The pathways summarise casual relationships and help identify or clarify the assumptions in the intervention logic of the project. For example, in the Figure 2 below the eventual impact depends upon the behaviour of the farmers in using the new agricultural techniques they have learnt from the training. The project design for the intervention might be based on the upper pathway assuming that the farmers can now meet their needs from more efficient management of a given area therefore reducing the need for an expansion of cultivated area and ultimately reducing pressure on nearby forest habitat, whereas the evidence gathered in the evaluation may in some locations follow the lower of the two pathways; the improved faming methods offer the possibility for increased profits and create an incentive for farmers to cultivate more land resulting in clearance or degradation of the nearby forest habitat.

Figure 2. An impact pathway / TOC for a training intervention intended to aid forest conservation.



The GEF Evaluation Office has recently developed an approach that builds on the concepts of theory of change / causal chains / impact pathways. The method is known as Review of Outcomes to Impacts (ROtI)[32] and has three distinct stages:

a. Identifying the project's intended impacts

b. Review of the project's logical framework

c. Analysis and modelling of the project's outcomes-impact pathways

The **identification of the projects intended impacts** should be possible from the 'objectives' statements specified in the official project document. The next stage is to **review the project's logical framework** to assess whether the design of the project is consistent with, and appropriate for, the delivery of the intended impact. The method requires verification of the causal logic between the different hierarchical levels of the logical framework moving 'backwards' from impacts through outcomes to the outputs; the activities level is not formally considered in the ROtI method[33]. The aim of this stage is to develop an understanding of the causal logic of the project intervention and to identify the key 'impact pathways'. In reality such process are often complex; they often involve multiple actors and decision-processes and are subject to time-lags, meaning that project impact often accrue long after the completion of project activities.

The third stage involves analysis of the 'impact pathways' that link project outcomes to impacts. The pathways are analysed in terms of the **'assumptions'** and **'impact drivers'** that underpin the processes involved in the transformation of outcomes to

[32] GEF Evaluation Office (2009). ROtI: Review of Outcomes to Impacts Practitioners Handbook. http://www.gefweb.org/uploadedFiles/Evaluation_Office/OPS4/Roti%20Practitioners%20Handbook%2015%20June%202009.pdf

[33] Evaluation of the efficiency and effectiveness in the use of resources to generate outputs is already a major focus within UNEP Terminal Evaluations.

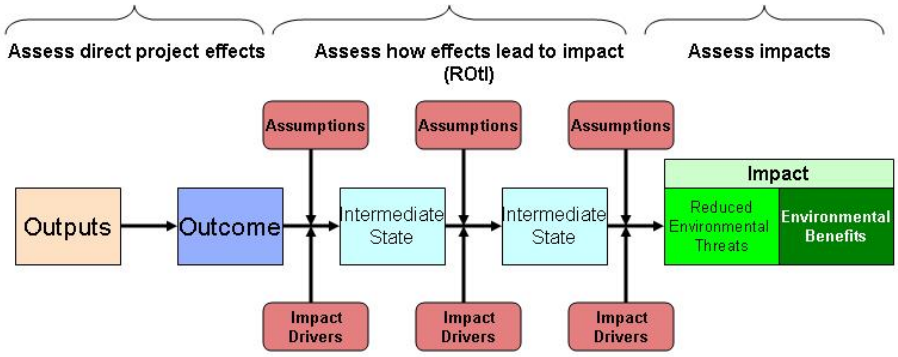
impacts via **intermediate states** (see Figure 3). Project outcomes are the direct intended results stemming from the outputs, and they are likely to occur either towards the end of the project or in the short term following project completion. **Intermediate states** are the transitional conditions between the project's immediate outcomes and the intended impact. They are necessary conditions for the achievement of the intended impacts and there may be more than one intermediate state between the immediate project outcome and the eventual impact.

Impact drivers are defined as the significant factors that if present are expected to contribute to the realization of the intended impacts and **can be influenced** by the project / project partners & stakeholders. **Assumptions** are the significant factors that if present are expected to contribute to the realization of the intended impacts but are largely **beyond the control of the project** / project partners & stakeholders. The impact drivers and assumptions are ordinarily considered in Terminal Evaluations when assessing the sustainability of the project.

Since project logical frameworks do not often provide comprehensive information on the processes by which project outputs yield outcomes and eventually lead, via 'intermediate states' to impacts, the impact pathways need to be carefully examined and the following questions addressed:

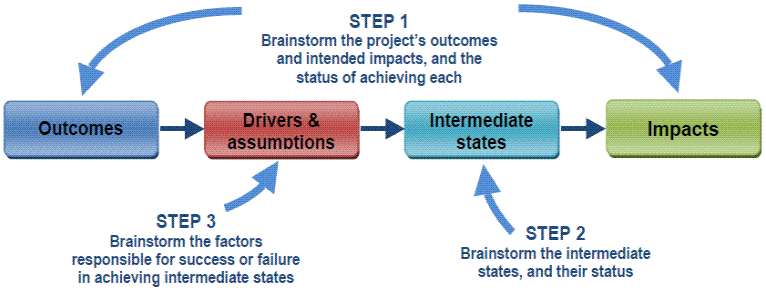
- Are there other causal pathways that would stem from the use of project outputs by other potential user groups?
- Is (each) impact pathway complete? Are there any missing intermediate states between project outcomes and impacts?
- Have the key impact drivers and assumptions been identified for each 'step' in the impact pathway.

Figure 3. A schematic 'impact pathway' showing intermediate states, assumptions and impact drivers (adapted from GEF EO 2009).



The process of identifying the impact pathways and specifying the impact drivers and assumptions can be done as a desk exercise by the evaluator or, preferably, as a group exercise, led by the evaluator with a cross-section of project stakeholders as part of an evaluation field mission or both. Ideally, the evaluator would have done a desk-based assessment of the project's theory of change and then use this understanding to facilitate a group exercise. The group exercise is best done through collective discussions to develop a visual model of the impact pathways using a card exercise. The component elements (outputs, outcomes, impact drivers, assumptions intended impacts etc.) of the impact pathways are written on individual cards and arranged and discussed as a group activity. Figure 4 below shows the suggested sequence of the group discussions needed to develop the ToC for the project.

Figure 4. Suggested sequencing of group discussions (from GEF EO 2009)



Once the theory of change model for the project is complete the evaluator can assess the design of the project intervention and collate evidence that will inform judgments on the extent and effectiveness of implementation, through the evaluation process. Performance judgments are made always noting that project contexts can change and that adaptive management is required during project implementation.

The ROtI method requires ratings for outcomes achieved by the project and the progress made towards the 'intermediate states' at the time of the evaluation. According the GEF guidance on the method; "*The rating system is intended to recognize project preparation and conceptualization that considers its own assumptions, and that seeks to remove barriers to future scaling up and out. Projects that are a part of a long-term process need not at all be "penalized" for not achieving impacts in the lifetime of the project: the system recognizes projects' forward thinking to eventual impacts, even if those impacts are*

eventually achieved by other partners and stakeholders, albeit with achievements based on present day, present project building blocks." For example, a project receiving an "AA" rating appears likely to deliver impacts, while for a project receiving a "DD" this would seem unlikely, due to low achievement in outcomes and the limited likelihood of achieving the intermediate states needed for eventual impact (see Table 1).

Table 1. Rating scale for outcomes and progress towards 'intermediate states'

Outcome Rating	**Rating on progress toward Intermediate States**
D: The project's intended outcomes were not delivered	**D:** No measures taken to move towards intermediate states.
C: The project's intended outcomes were delivered, but were not designed to feed into a continuing process after project funding	C: The measures designed to move towards intermediate states have started, but have not produced results.
B: The project's intended outcomes were delivered, and were designed to feed into a continuing process, but with no prior allocation of responsibilities after project funding	B: The measures designed to move towards intermediate states have started and have produced results, which give no indication that they can progress towards the intended long term impact.
A: The project's intended outcomes were delivered, and were designed to feed into a continuing process, with specific allocation of responsibilities after project funding.	A: The measures designed to move towards intermediate states have started and have produced results, which clearly indicate that they can progress towards the intended long term impact.

Thus a project will end up with a two letter rating e.g. AB, CD, BB etc. In addition the rating is given a '+' notation if there is evidence of impacts accruing within the life of the project. The possible rating permutations are then translated onto the usual six point rating scale used in all UNEP project evaluations in the following way.

Table 2. Shows how the ratings for 'achievement of outcomes' and 'progress towards intermediate states translate to ratings for the 'Overall likelihood of impact achievement' on a six point scale.

Highly Likely	Likely	Moderately Likely	Moderately Unlikely	Unlikely	Highly Unlikely
AA AB BA CA BB+ CB+ DA+ DB+	BB CB DA DB AC+ BC+	AC BC CC+ DC+	CC DC AD+ BD+	AD BD CD+ DD+	CD DD

In addition, projects that achieve documented changes in environmental status during the project's lifetime receive a positive impact rating, indicated by a "+". The overall likelihood of achieving impacts is shown in Table 11 below (a + score above moves the double letter rating up one space in the 6-point scale).

The ROtI method provides a basis for comparisons across projects through application of a rating system that can indicate the expected impact. However it should be noted that whilst this will provide a relative scoring for all projects assessed, it does not imply that the results from projects can necessarily be aggregated. Nevertheless, since the approach yields greater clarity in the 'results metrics' for a project, opportunities where aggregation of project results might be possible can more readily be identified.

Results rating of project entitled:							
Outputs	**Outcomes**	**Rating (D – A)**	**Intermediary**	**Rating (D – A)**	**Impact (GEBs)**	**Rating (+)**	**Overall**
1.	1.		1.		1.		
2.	2.		2.		2.		
3.	3.		3.		3.		
	Rating justification:		**Rating justification:**		**Rating justification:**		

Scoring Guidelines

The achievement of **Outputs** is largely assumed. Outputs are such concrete things as training courses held, numbers of persons trained, studies conducted, networks established, websites developed, and many others. Outputs reflect where and for what project funds were used. These were not rated: projects generally succeed in spending their funding.

Outcomes, on the other hand, are the first level of intended results stemming from the outputs. Not so much the number of persons trained; but how many persons who then demonstrated that they have gained the intended knowledge or skills. Not a

study conducted; but one that could change the evolution or development of the project. Not so much a network of NGOs established; but that the network showed potential for functioning as intended. A sound outcome might be genuinely improved strategic planning in SLM stemming from workshops, training courses, and networking.

Examples

Funds were spent, outputs were produced, but nothing in terms of outcomes was achieved. People attended training courses but there is no evidence of increased capacity. A website was developed, but no one used it. (Score – D)

Outcomes achieved but are dead ends; no forward linkages to intermediary stages in the future. People attended training courses, increased their capacities, but all left for other jobs shortly after; or were not given opportunities to apply their new skills. A website was developed and was used, but achieved little or nothing of what was intended because users had no resources or incentives to apply the tools and methods proposed on the website in their job. (Score – C)

Outcomes plus implicit linkages forward. Outcomes achieved and have *implicit forward linkages* to intermediary stages and impacts. Collaboration as evidenced by meetings and decisions made among a loose network is documented that should lead to better planning. Improved capacity is in place and should lead to desired intermediate outcomes. Providing implicit linkages to intermediary stages is probably the most common case when outcomes have been achieved. (Score - B)

Outcomes plus explicit linkages forward. Outcomes have *definite and explicit forward linkages* to intermediary stages and impacts. An alternative energy project may result in solar panels installed that reduced reliance on local wood fuels, with the outcome quantified in terms of reduced C emissions. Explicit forward linkages are easy to recognize in being concrete, but are relatively uncommon. (Score A)

Intermediary stages:
The **intermediate stage** indicates achievements that lead to Global Environmental Benefits, especially if the potential for scaling up is established.

"Outcomes" scored C or D. If the outcomes above scored C or D, there is no need to continue forward to score intermediate stages given that achievement of such is then not possible.

In spite of outcomes and implicit linkages, and follow-up actions, the project dead-ends. Although outcomes achieved have *implicit forward linkages* to intermediary stages and impacts, the project dead-ends. Outcomes turn out to be insufficient to move the project towards intermediate stages and to the eventual achievement of GEBs. Collaboration as evidenced by meetings and among participants in a network never progresses further. The implicit linkage based on follow-up never materializes. Although outcomes involve, for example, further participation and discussion, such actions do not take the project forward towards intended intermediate impacts. People have fun getting together and talking more, but nothing, based on the implicit forwards linkages, actually eventuates. **(Score = D)**

The measures designed to move towards intermediate states have started, but have not produced result, barriers and/or unmet assumptions may still exist. In spite of sound outputs and in spite of explicit forward linkages, there is limited possibility of intermediary stage achievement due to barriers not removed or unmet assumptions. This may be the fate of several policy related, capacity building, and networking projects: people work together, but fail to develop a way forward towards concrete results, or fail to successfully address inherent barriers. The project may increase ground cover and or carbon stocks, may reduce grazing or GHG emissions; and may have project level recommendations regarding scaling up; but barrier removal or the addressing of fatal assumptions means that scaling up remains limited and unlikely to be achieved at larger scales. Barriers can be policy and institutional limitations; (mis-) assumptions may have to do with markets or public – private sector relationships. **(Score = C)**

Barriers and assumptions are successfully addressed. Intermediary stage(s) planned or conceived have feasible direct and explicit forward linkages to impact achievement; barriers and assumptions are successfully addressed. The project achieves measurable intermediate impacts, and works to scale up and out, but falls well short of scaling up to global levels such that achievement of GEBs still lies in doubt. **(Score = B)**

Scaling up and out over time is possible. Measurable intermediary stage impacts achieved, scaling up to global levels and the achievement of GEBs appears to be well in reach over time. **(Score = A)**

Impact: Actual changes in environmental status
"Intermediary stages" scored B to A.
Measurable impacts achieved at a globally significant level within the project life-span. . **(Score = '+')**

Annex 8 **(ToR)**: Template for the assessment of the Quality of Project Design – UNEP Evaluation Office September 2011

Relevance	Evaluation Comments	Prodoc reference
Are the intended results likely to contribute to UNEPs Expected Accomplishments and programmatic objectives?		
Does the project form a coherent part of a UNEP-approved programme framework?		
Is there complementarity with other UNEP projects, planned and ongoing, including those implemented under the GEF?		

Are the project's objectives and implementation strategies consistent with:	i) Sub-regional environmental issues and needs?		
	ii) the UNEP mandate and policies at the time of design and implementation?		
	iii) the relevant GEF focal areas, strategic priorities and operational programme(s)? (if appropriate)		
	iv) Stakeholder priorities and needs?		
Overall rating for Relevance			
Intended Results and Causality			
Are the objectives realistic?			
Are the causal pathways from project outputs [goods and services] through outcomes [changes in stakeholder behaviour] towards impacts clearly and convincingly described? Is there a clearly presented Theory of Change or intervention logic for the project?			
Is the timeframe realistic? What is the likelihood that the anticipated project outcomes can be achieved within the stated duration of the project?			
Are the activities designed within the project likely to produce their intended results			
Are activities appropriate to produce outputs?			
Are activities appropriate to drive change along the intended causal pathway(s)			
Are impact drivers, assumptions and the roles and capacities of key actors and stakeholders clearly described for each key causal pathway?			
Overall rating for Intended Results and causality			
Efficiency			
Are any cost- or time-saving measures proposed to bring the project to a successful conclusion within its programmed budget and timeframe?			
Does the project intend to make use of / build upon pre-existing institutions, agreements and partnerships, data sources, synergies and complementarities with other initiatives, programmes and projects etc. to increase project efficiency?			
Overall rating for Efficiency			
Sustainability / Replication and Catalytic effects			
Does the project design present a strategy / approach to sustaining outcomes / benefits?			
Does the design identify the social or political factors that may influence positively or negatively the sustenance of project results and progress towards impacts? Does the design foresee sufficient activities to promote government and stakeholder awareness, interests, commitment and incentives to execute, enforce and pursue the programmes, plans, agreements, monitoring systems etc. prepared and agreed upon under the project?			
If funding is required to sustain project outcomes and benefits, does the design propose adequate measures / mechanisms to secure this funding?			
Are there any financial risks that may jeopardize sustenance of project results and onward progress towards impact?			
Does the project design adequately describe the institutional frameworks, governance structures and processes, policies, sub-regional agreements, legal and accountability frameworks etc. required to sustain project results?			
Does the project design identify environmental factors, positive or negative, that can influence the future flow of project benefits? Are there any project outputs or higher level results that are likely to affect the environment, which, in turn, might affect sustainability of project benefits?			
Does the project design foresee adequate measures to catalyze behavioural changes in terms of use and application by the relevant stakeholders of (e.g.):	i) technologies and approaches show-cased by the demonstration projects;		
	ii) strategic programmes and plans developed		
	iii) assessment, monitoring and management systems established at a national and sub-regional level		
Does the project design foresee adequate measures to contribute to institutional changes? [An important aspect of the catalytic role of the project is its contribution to institutional			

uptake or mainstreaming of project-piloted approaches in any regional or national demonstration projects]		
Does the project design foresee adequate measures to contribute to policy changes (on paper and in implementation of policy)?		
Does the project design foresee adequate measures to contribute to sustain follow-on financing (catalytic financing) from Governments, the GEF or other donors?		
Does the project design foresee adequate measures to create opportunities for particular individuals or institutions (“champions”) to catalyze change (without which the project would not achieve all of its results)?		
Are the planned activities likely to generate the level of ownership by the main national and regional stakeholders necessary to allow for the project results to be sustained?		
Overall rating for Sustainability / Replication and Catalytic effects		
Risk identification and Social Safeguards		
Are critical risks appropriately addressed?		
Are assumptions properly specified as factors affecting achievement of project results that are beyond the control of the project?		
Are potentially negative environmental, economic and social impacts of projects identified		
Overall rating for Risk identification and Social Safeguards		
Governance and Supervision Arrangements		
Is the project governance model comprehensive, clear and appropriate?		
Are roles and responsibilities clearly defined?		
Are supervision / oversight arrangements clear and appropriate?		
Overall rating for Governance and Supervision Arrangements		
Management, Execution and Partnership Arrangements		
Have the capacities of partner been adequately assessed?		
Are the execution arrangements clear?		
Are the roles and responsibilities of internal and external partners properly specified?		
Overall rating for Management, Execution and Partnership Arrangements		
Financial Planning / budgeting		
Are there any obvious deficiencies in the budgets / financial planning		
Cost effectiveness of proposed resource utilization as described in project budgets and viability in respect of resource mobilization potential		
Financial and administrative arrangements including flows of funds are clearly described		
Overall rating for Financial Planning / budgeting		
Monitoring		
Does the logical framework: • capture the key elements in the Theory of Change for the project? • have ‘SMART’ indicators for outcomes and objectives? • have appropriate 'means of verification' • adequately identify assumptions		
Are the milestones and performance indicators appropriate and sufficient to foster management towards outcomes and higher level objectives?		
Is there baseline information in relation to key performance indicators?		
Has the method for the baseline data collection been explained?		
Has the desired level of achievement (targets) been specified for indicators of Outcomes and are targets based on a reasoned estimate of baseline??		
Has the time frame for monitoring activities been specified?		
Are the organisational arrangements for project level progress monitoring clearly specified		
Has a budget been allocated for monitoring project progress in implementation against outputs and outcomes?		
Overall, is the approach to monitoring progress and performance within the project adequate?		
Overall rating for Monitoring		
Evaluation		
Is there an adequate plan for evaluation?		

Has the time frame for Evaluation activities been specified?		
Is there an explicit budget provision for mid term review and terminal evaluation?		
Is the budget sufficient?		
Overall rating for Evaluation		

Annex 2.

The evaluation framework (second part of the inception report)

The evaluation methodology was elaborated basing on the ToR, and several manuals and guidelines, such as UNEP. Evaluation Manual. Evaluation and Oversight Unit. March 2008; GEF. Evaluation Office. Guidelines for GEF Agencies in Conducting Terminal Evaluations. Evaluation Document No. 3. 2008; UNEP. Evaluation Policy. Evaluation Office. September 2009; GEF. Review of Outcomes to Impacts. Practitioner's Handbook. GEF Evaluation Office with Conservation Development Centre. Draft. June 2009.

The logic to be followed for the terminal evaluation is described below:

Desk review:

- Review all the documents made available by the UNEP Evaluation Office and the documents available on Project Website
- Review the Project Document prepared as for Tranche I and Tranche II
- Yearly Project Implementation Review (PIR) reports prepared by UNEP Task Manager (TM) following GEFSEC format
- General review of the annexes to the Final PIR
- Review MTE report

Milestone: Inception report

Drafting report

- Selective review of the monitoring and progress reports prepared during the implementation of the project (as listed in Project Document):
    - Semi-annual progress reports
    - Work plans
    - IMIS system at UNEP and financial reports
    - Audit statements
    - Minutes of PSC meetings
    - Minutes of PAC meetings
- Review annual desk evaluation by UNEP/DGEF Coordination as well as aide-memoires of supervision missions conducted by the UNEP Project Management Officer and/or UNEP Fund Management Officer
- Field visit and meeting with some of the stakeholders in Kenya, Brazil and Mexico (questionnaire is provided in Annex 5)

  Milestone: Zero draft report
- Interview (face-to-face or through telephone or internet) with relevant stakeholders (UNEP TM, PM, Consultants, partner utilities, project partners and stakeholders in Uganda, Cote d'Ivore, India, Indonesia, others) to validate the assumptions and gather/cross-check information/data sources/evidences necessary for a through review of the main evaluation criteria grouped in four categories:
    - Attainment of objectives and planned results
    - Sustainability and catalytic role
    - Processes affecting attainment of project results, and
    - Complementarity with the UNEP strategies and programmes

- Consult other documents available on UNEP and GEF web site or any other sources to have a better grasp of all aspects related to Conservation and Sustainable Management of Below-Ground Biodiversity around the world.
- Based on the knowledge gained, prepare the draft evaluation report that presents evidence based and balanced findings, consequent conclusions, lessons and recommendations.

  Milestone: First draft report
- Communication to UNEP on collated comments
- Response to comments

  Milestone: Final report

Data Sources

- Relevant background documentation, inter alia UNEP and GEF policies, strategies and programmes pertaining to BGBD conservation;
- Project design documents; Annual Work Plans and Budgets or equivalent, revisions to the logical framework and project financing;
- Project reports such as progress and financial reports from countries to the EA and from the EA to UNEP; annual Project Implementation Reviews and relevant correspondence;
- Project completion reports: global and by countries
- Project M&E reports and other related documents at global and country level
- The Mid-term Evaluation report;
- Documentation related to project outputs
- Project design documents
- Project supervision plan, with associated budget
- Correspondence related to project
- Supervision mission reports
- Steering Committee meeting documents, including agendas, meeting minutes, and any summary reports
- Project progress reports, including financial reports submitted
- Cash advance requests documenting disbursements
- Annual Project Implementation Reports (PIRs)
- Management memos related to project
- Other documentation of supervision feedback on project outputs and processes (e.g. comments on draft progress reports, etc.).
- Project extension documentation.
- Project revision documentation.
- Budget revision documentation, audit reports

List of individuals/positions to be consulted.

- UNEP Task Manager
- Global Project Coordinator
- Project Information Manager
- Other project stuff (global) if possible: Project Administrator, Data analyst, Social science/political analyst consultant, Natural resource or environmental economist consultant, and other Consultants
- TSBF project related stuff
- Fund Management Officer
- Relevant staff of GEF Secretariat;
- PAC and PSC members
- Project Technical advisors
- Country project coordinators
- Country project stuff (consultants and specialists, e.g. M&E, environmental, agricultural, etc)
- Country and regional government (relevant agencies, ministries) representatives
- Country and International NGOs' representatives

- Representatives of collaborating institutions at national level
- Representatives of National Project Implementing Committee
- Representatives of Task Forces teams
- BGBD database and project web-site hosters/owners/coordinators
- Grassroot project beneficiaries (farmers, scientists, laboratories, students, etc)

Revised logistics (dates of travel and key evaluation milestones).

Activity	Date
Start of contract with receiving basic background documents.	21 January 2012
Desk work on documents study, request for additional materials	21-28 January 2013
Inception report to UNEP EO	28 January 2013
Continuing desk work. Contacting project management. Questionnarie refinement	29 January – 8 February 2013
Travel from Moscow to Nairobi	9 or 10 February
Consultative meetings with project coordinator, FMO at UNEP Nairobi and Site visits in Kenya	10 (11)-15 February 2013
Travel to Rio-de-Janeiro	16-17 February 2013
Site visit to Brazil	18-21 February 2013
Travel to Mexico-city	22 February 2013
Site visit to Mexico	23-27 February 2013
Return back to Moscow	28 February – 2 March 2013
Zero draft report to UNEP EO	11 March 2013
Comments by UNEP EO sent to Consultant (one week after receiving Zero draft)	18 March 2013
First draft report to UNEP EO	25 March 2013
Collated comments by UNEP EO sent to consultant (two weeks after it is received from consultant)	8 April 2013
Final report and response to comments to UNEP EO	22 April 2013
End of contract	30 April 2013

xlviii. Preliminary content of the TE report

Project Identification Table	An updated version of the table in Section I.A. of the TORs
Executive Summary	Overview of main findings, conclusions and recommendations of the evaluation. It should encapsulate the essence of the information contained in the report to facilitate dissemination and distillation of lessons. The main points for each evaluation parameter should be presented (with a summary ratings table), as well as the most important lessons and recommendations. Maximum 4 pages.
I. Evaluation Background	
A. Context	A. Overview of the broader institutional and country context, in relation to the project's objectives.
B. The Project	B. Presentation of the project: rationale, objectives, components, intervention areas and target groups, milestones in design, implementation and completion, implementation arrangements and main partners, financing (amounts and sources), modifications to design before or during implementation.
C. Evaluation objectives, scope and methodology	C. Presentation of the evaluation's purpose, evaluation criteria and key questions, evaluation timeframe, data collection and analysis instruments used, places visited, types of stakeholders interviewed, and limitations of the evaluation.
II. Project Performance and Impact	This section is organized according to the 4 categories of evaluation criteria: A. Attainment of objectives and planned results B. Sustainability and catalytic role C. Processes affecting attainment of project results D. Complementarity with UNEP and DEPI programmes and strategies and provides evidence relevant to the questions asked and sound analysis and interpretations of such evidence. This is the main substantive section of the report. Ratings are provided at the end of the assessment of each evaluation criterion.
III. Conclusions and Recommendations	
A. Conclusions	This section summarizes the main findings of the evaluation, told in a logical sequence from cause to effect.
B. Lessons Learned	Lessons learned will be anchored in the main findings of the evaluation, based on good practices and successes which could be replicated or derived from problems encountered and mistakes made which should be avoided in the future.
C. Recommendations	Recommendations will be anchored in the conclusions of the report, with proper cross-referencing and proposals on how to resolve concrete problems affecting the project or the sustainability of its results.
Annexes	May include additional materials but will include: 1. Evaluation TOR 2. Evaluation framework (second part of the inception report) 3. Evaluation program, containing the names of locations visited and the names (or functions) of people met 4. Bibliography 5. Summary co-finance information and a statement of project expenditure by activity 6. The review of project design (first part of the inception report) 7. Technical working paper 8. Brief CV of the consultant

Annex 3

Names of locations visited and the names (or functions) of people met

UNEP:

1. Marieta Sakalian – former BGBD project Task Manager
2. Rodney Vorley – Fund Management Officer
3. Mohamed Sessay – Chief. Biodiversity/Land Degradation/Biosafety and Portfolio Manager. DEPI GEF

TSBF-CIAT:

4. Jeroen Huising. N2AFrica project coordinator (Former Global project Manager)

Others at global level:

5. Michael Stocking. Emeritus Professor of Natural Resource Development. University of East Anglia. Norwich. United Kingdom
6. Diana Wall. Scientific Chair of the Global Soil Biodiversity Initiative and Director of the School of Global Environmental Sustainability. Colorado State University, USA

Kenya

Ministry of Environment & Mineral Resources, GEF focal point, CBD focal point

7. Parkinson M. Ndonye. Multilateral Environmental Agreements. Deputy Director
8. Wilson Busienci. National Environment Management Authority

University of Nairobi:

9. Prof. Lucy W.Irungu. Deputy Vice-chancellor (Former National Director of the project)
10. Prof. Bernard O.C.Aduda. College of Biological & Physical Sciences. Principal
11. Prof. Akunda. Biological Sci. School. Head
12. Prof. Robinson Kinuthia Ngugu. Department of Land Resource management & Agricultural technology. Head
13. Prof. Nancy Karanja. Director, MIRCEN Project (LARMAT) (Former National Coordinator Assisstant)
14. Prof. Sheila Okoth. College of Biological & Physical Sciences (Former project National Coordinator)
15. Dr. Peter Wachira. Lecturer (Former administrative assistant to national coordinator)

National Museums of Kenya:

16. Dr. Mary Aikungu. Principal investigator
17. Dr Emily Wabeuyele. Research and collections. Director
18. Susan Njuguihi Kabacia. Technologist

Finlays/Dudutech:

19. Daniel Kiboi. Production Manager -Vegetables
20. Ruth Vaughan. General Manager
21. Edward O. Okonjo. Quality control and production manager
22. Johnson Mokobi Okiriaiti. Technical Liason Officer

23. Willis Ochilo. Assistant Entomologist.

MEA fertilizers^

24. Priscah W. Echessa. Biofix bacteriologist
25. Jobkevin J. Ngunyi. Agronomist
26. Teresah Wafullah. Biofix Manager

Brazil

UFLA (University of Lavras)

27. Prof. Fatima Moreira – Laboratory of Microbiology. Professor (former National coordinator)
28. Prof. Julio Louzada – Sector of Ecology and Conservation. Professor
29. Prof. Ronald Zanetti – Entomology sector. Professor
30. Prof. Ludwig Pfenning – Fungi Laboratory. Professor
31. Teotonio Soares de Raicvaluo – Laboratory of Microbiology. PhD student.
32. Amanda Azarias Gulmarals - Laboratory of Microbiology. PhD student.

EMBRAPA

33. Dr. Francisco Adriano de Souza – Maize & Sorghum. Soil Microbiology Researcher
34. Dr. Elaine Fidaldo – Solos. Remote Sensing Specialist
35. Dr. Mauricio Rizzato Coleho. Solos. Soil Scientist

Universidade de Brasilia

36. Prof. Juvenil Cares. Instituto de Ciencias Biologicas. Dep. Fitopatologia. Professor

Mexico

Governmental officials

37. Dr. Jonathan Ryan. GEF focal point officer. Federal Ministry of Environment
38. Dr. Antonio Gonsalez Azuara, Federal Ministry of Environment. Director of Veracruz state delegation.
39. Dr. Victor Alvarado. Government of Veracruz State. Natural Resource Director.

INECOL (Institute of Ecology)

40. Dr. Martin R.Aluja Schuneman Hofer. General Director
41. Dr. Isabelle Barois. Researcher (former National coordinator of the project, earthworms)
42. Dr. Simoneta Negrette Yankelevich. Researcher (data base and modeling).

National Institute of Ecology

43. Anabel Martínez. Consultant to Ministry of Environment

CONABIO (National Council for Biodiversity)

44. Dr. Patricia Koleff. Technical **Director on Analysis and Prorities**
45. **Dr. Jorge Larson. Researcher**
46. Mario Guevara. Researcher

University of Veracruz state in Xalapa

47. Dr. Dora Trejo. Teacher researcher (micoriza)
48. Dr. Enrique Alarcon. Researcher (soils and earthworms interrelations)
49. Dr. Angel Ortiz. Researcher (crop rotation: maize&mucuna)

University of Agriculture in Chapingo (Campus in Veracruz)

50. Dr. Carlos Guadarama. Teacher researcher (lilies)

University of Tabasco

51. Dr. Julio Camara Cordova. Teacher researcher (agronomy)

University of Mexico. Centre of Genomic Science

52. Dr. Esperanza Martinez Romero.

Los Tuxtlas Natural Reserve (project site)

53. Jose Faustino Escobar Chontal. Director

Farmers

In Plan Agrario, Soteapan

54. Marcelino – head of the community
55. Enrique Albino Markez – lilies producer

In Selva Del Marinero, Adolfo Lopez Mateos (ecotourism&agriculture)

56. German Lopez Herrera
57. Odilou Lopez Herrera
58. Angel Mena Lagunas
59. Cecilio Sixtega Herrera
60. Angel Abrajan Rodriguez
61. Jose Luis Abrajan Vetasco
62. Arsenico Baxin Sixtega

NGO in Chinameca (DECOTUX)

63. Carlos Robles Guadarama. Economist
64. Alejandra Pacheco Mamone. Biologist

Uganda (by e-mail)

Makerere University

65. Dr Mary Rwakaikara-Silver – assistant to national coordinato

Indonesia (by e-mail)

Universitas Lampung

66. FX Susilo - – former national coordinator

India (by e-mail)

Jawaharlal Nehru University

67. Dr Krishna G. Saxena – former national coordinator

Annex 4.

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Annex 1:Internationally accepted standard methods for characterization and evaluation of below-Ground BioDiversity'

Annex 2:Review of Below-Ground Biodiversity Research in the CSM-BGBD Project Countries

Annex 3:Inventory of Below-Ground Biodiversity in the project benchmark sites and global information exchange network

Annex 4:Sustainable Use and Management of Below-Ground BioDiversity

Annex 5:Support for policy decisions on alternative land use and land management practices

Annex 6:Capacity Building, Sensitization and Raising Awareness on the Importance Below Ground Biodiversity for Sustainable Agricultural Production

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-

Annex 5

Project costs and co-financing tables

Project Cost

	US$	Disbursed
Cost to GEF Trust Fund		
Tranche I	5,022,646	5,022,646
Tranche II	4,007,124	4,007,124
PDF A	25,000	25,000
PDF B	248,000	248,000
Sub-Total	**9,302,770**	**9,302,770**

Co-financing planned as per original project document approved in 2002

Country Baseline	8,023,676
Country Project	4,833,678
TSBF-CIAT Baseline	1,170,000
TSBF-CIAT Project	2,605,000
Sub-Total	**16,632,354**
Full Project (including PDF)	25,935,124
Full Project (Less PDF)	**25,662,124**

Full Project Cost : 25,935,124

Co-financing, USD

	GEF	CO-FINANCING				
		Total Planned Phase I, II	Disbursed Tranche I	Disbursed Tranche II	Leveraged	Actual Total
Total Cost of Project Phase I	5,022,646	7,438,678*	3,241,552		1,621,629	4,863,181
Total Cost of Project Phase II	4,007,124			4,197,126	2,446,504	6,643,630
PDP A	25, 000					
PDP B	248,000					
TOTAL Actual						11,506,811

*Countries plus TSBF

FULL Actual Project Cost:

$20,803,581 excluding baseline cost (+PDF A and PDF B)

$29,997,257 including baseline cost (+PDF A and PDF B)

Co-financing of Phase II

Co financing (Type/Source)	IA own Financing (mill US$)		Government (mill US$)		Other* (mill US$)		Total (mill US$)		Total Disbursed (mill US$)
	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual	
Grants	0	0	200,960	506,000	126,408	0	327,368	506,000	506,000
Loans	0	0	0	0	0	0	0	0	0
Credits	0	0	0	0	0	0	0	0	0
Equity investments	0	0	0	0	0	0	0	0	0
In-kind support	0	0	2,511,571	5,125,689	1,358,187	1,011941	3,869,758	6,137,630	6,137,630
Other (*)-	0	0	0	0	0	0	0	0	0
x. Totals	0	0	2,712,531	5,631,689	1,484,595	1,011,941	4,197,126	6,643,630	6,643,630

* Other is referred to contributions mobilised for the project from other multilateral agencies, bilateral development cooperation agencies, NGOs, the private sector and beneficiaries.

Other (*)	Planned (U$)	Actual (U$)
TSBF	855,187	1,011,941
Total	**855,187**	**1,011,941**

Summary co-finance information by sources (Tranche II)

Source of Cofinancing		Cash Contributions	In-kind contributions	Total Cash & In-kind contributions combined	
				Budget	Actually Received
Brasil	Committed	960	611516	612476	577541
	Additional	0	1787553		1787553
	Committed + Additional				2365094
Cote d'Ivoire	Committed (Phase II)	0	111608	111608	145251
	Additional (Phase II)	0	20473		20473
	Committed + Additional				165724
India	Committed (Phase II)	0	316456	316456	332574
	Additional (Phase II)	0	911232	0	911232
	Committed + Additional				1243806
Indonesia	Committed (Phase II)	200000	240000	440000	0
	Additional (Phase II)	0	142044		142044
	Committed + Additional				142044
Kenya	Committed (Phase II)	0	468832	468832	918065
	Additional (Phase II)	0	42860		42860
	Committed + Additional				960925
Mexico	Committed (Phase II)	0	382199	382199	358825
	Additional (Phase II)	0	309330		309330
	Committed + Additional				668155

Source of Cofinancing		Cash Contributions	In-kind contributions	Total Cash & In-kind contributions combined	
Uganda	Committed (Phase II)	0	380960	380960	85941
	Additional (Phase I + II)	0	0		0
	Committed + Additional				85941
Combined countries Sub-totals	Committed	200960	2511571	2712531	2418196
	Additional	0	3213492		3213492
	Committed + Additional				5631689
Tropical Soil Biology & Fertility Programme					
	Committed (Phase II)		855187	855187	1011941
The International Centre for Tropical Agriculture (CIAT)					
	Committed (Phase II)		503000	503000	0
The Rockefeller Foundation					
	Committed (Phase II)	19908		19908	0
UNESCO-Danida Funds-In-Trust					
	Committed (Phase II)	106500		106500	0
Global Office Sub-totals	Committed (Phase II)	126408	1358187	1484595	1011941
	Committed + Additional				1011941
GRAND TOTALS (Country + Global Office)	Committed (Phase II)	327368	3869758	4197126	3430138
	Additional (Phase II)	0	3213492		3213492
	Committed + Additional				6643630

Annex 6.

The review of project design (first part of the inception report)

288. Introduction

This Inception report has been prepared in accordance with the Terms of Reference for Terminal Evaluation of the Project "Conservation and Sustainable Management of Below-Ground Biodiversity"

UNEP was the Implementing Agency (IA) for this project with responsibility for project management, overview, monitoring and liaison with, and reporting, to the GEF. The lead Executing Agency for the project was the International Centre for Tropical Agriculture-Tropical Soil Biology and Fertility Institute (CIAT-TSBF), which provided the appropriate managerial, administrative and financial procedures to ensure proper execution of the project. The National Executing Agencies in project partners countries included as followes; Brazil: Universidade Federal de Lavras; Côte d'Ivoire: Université de Cocody (Abidjan); India: Jawaharlal Nehru University; Indonesia: Universitas Lampung; Kenya: University of Nairobi; Mexico: Instituto de Ecologia, Xalapa; Uganda: Makerere University.

289. Project relevance

290. Consistence with national and regional environmental issues and needs.

All participating countries with significant expertise in soil biology have tropical forests, representing a wide range of types (humid to sub-humid, lowland and mountainous). Several of the participating countries are "mega-diversity" nations. These sites are currently under pressure for land conversion and agricultural intensification. At all sites, the interest of stakeholders, from government agencies to NGOs and farmers has been established in support of the project. National Governments in the participating countries in this project have all ratified the CBD. Agricultural development policies in all countries have also been established to promote land use/management practices that are sustainable and productive, while simultaneously conserving the environment.

291. Consistence with UNEP mandate and policies

The project at the time of its design and implementation has been consistent with the Nairobi Declaration on the UNEP Role and Mandate, and several functional divisions and Malmo Ministerial Declaration. To the time of the project preparation the importance of the conservation and sustainable use of biodiversity important to agriculture has been increasingly recognized and has been detailed in the decisions adopted by the Conference of the Parties (COP 4) to the CBD. To the end of the project it was still relevant to all of the redefined cross-linked five primary roles and consistent mainly with "Ecosystems Management" UNEP thematic area

292. Consistence with the relevant GEF focal areas, strategic priorities and operational programme(s)

Contributions to strategic priorities were not defined in the project document at project development. However, key project activities are consistent with GEF Biodiversity FA, BD-2 Strategic Priority (Mainstreaming biodiversity in production landscapes and sectors), OP 3 and OP 13

In doing so, the project was designed to: a) develop internationally accepted standard methods for characterizing and evaluating below-ground biodiversity; b) demonstrate sustainable and replicable management practices for BGBD conservation, which is consistent with the objectives and priorities of the GEF OP#13, biological diversity important for sustainable use of agro-ecosystems with regard to the list of Annex 1 of the CBD; c) support the objectives of GEF OP#3 on conservation and sustainable use of biological diversity in environmentally vulnerable areas; d) build capacity of partner country scientists to carry out research in soil biodiversity all integrated with ecosystem and agro-biodiversity benefits to their local communities and for global benefits; e) explore means of contributing to policy frameworks in the partner countries

Therefore, it can be concluded, that the project implementation strategies, goals and objectives were Consistent with: i) Sub-regional environmental issues and needs; ii) the UNEP mandate and policies at the time of design and implementation; and iii) the relevant GEF focal areas, strategic priorities and operational programme(s)

I. A desk-based Theory of Change of the project

293. Identifying the project's intended impacts

294. Impact:

The project's objective was formulated as "to enhance awareness, knowledge and understanding of below-ground biological diversity (BGBD) important to sustainable agricultural production in tropical landscapes by the demonstration of methods for conservation and sustainable". The project also was scientifically oriented and had a specific scientific goal "to explore the hypothesis that, by appropriate management of above- and below-ground biota, optimal conservation of biodiversity for national and global benefits can be achieved in mosaics of land-uses at differing intensities of management and furthermore result in simultaneous gains in sustainable agricultural production". Taking into account these goal and objective and following through the project overall strategy, MTE, and project implementation reports since 2007 to 2011, it can be concluded, that actually the project has pursued two main cross-linked globally important environmental goals: combating and preventing land degradation and biodiversity conservation through sustainable management approaches. They both can be considered as mutually complementary items, which if being realised provide the possibility of win-win situations where gains are achieved not only in biodiversity but also in agricultural production and resource conservation. In this situation they both serve like impact drivers to each other and/or project impacts. Sustainable agricultural production in the sites affected and enhanced knowledge management served as corresponding socio-economic and capacity building impacts of the project

The project intended impacts can also be realized though the assessment of anticipated global and regional ("domestic") benefits presented in the Project document (Annex A. Incremental Costs). It should be interesting to note that after MTE the updated project's incremental cost matrix presented anticipated benefits in relation to the project outcomes and also to the regional ("domestic") and global levels, which has made the intended project impacts more clear and logic (fragmentary provided in the annex 2). The priorities given in different countries to different

anticipated benefits can be realized through the analysis of budget allocation (see annex 3). For example, if Kenya pays the biggest attention to the Outcome 4 (more practically oriented) , such countries as India, Cote d'Ivoire, Mexico and Uganda consider this of the lowest priority. Most of countries give highest priorities to Outcome 2 and 3.

The analysis of the project documents made possible to conclude that the project was intended to have overall impact in four main spheres:

Environmental Benefits: BGBD to be conserved and sustainably managed in globally significant forest and agro- ecosystems in seven tropical countries

Reduced Environmental Threats: Reduced Land degradation as a threat to biodiversity

Sustainable development and improving people livelihoods: Sustainable agricultural production

Knowledge management and Capacity building: Enhanced knowledge and understanding of below-ground biological diversity.

295. Review of the project's logical framework

The Logical Framework matrix provides enough information to track the impacts pathway. The LF (updated to the Tranche II) contains intervention logic through Development Objective, Purpose, and Outcomes. The project's Outcomes were at the same time formulated as project Components to be implemented through related Activities with reference to relevant Performance Indicators, Verification Means, and Risk and Assumptions. To this logic the majority of the project Outputs and Milestones resulted from its Activities and evaluated by Indicators serve as Impact Drivers from the point of causal and impact chains. The overall logic of the project looks as a chain of outcomes, when the results of those implemented at first stages are considered as impact drivers and necessary conditions for the further. In parallel Risks and Assumptions are mitigating and settling one by one through consequent activities. This is evident from the project MTE and PIRs, which show that during the first tranche the project funds have been invested mainly in Components/Outcomes 1 and 2 to provide capacities for next projects stages planned for the second tranche.

296. Analysis and modelling of the project's outcomes - impact pathways

The insight of this logic acted as a background to the structure of the project Theory of Change presented in the flipchart below above. The structure is not simple, because the results of each Outcome/Component add value and serve as Intermediate Stages not only to the overall Project Impacts, but to the each next Outcome/Component as well. This complex backstopping approach to the causal pathway is absolutely reasonable from one hand, but from the other hand is a bit risky if any of the Outcomes/Components (each of them is crucial to the project impact) fail to some reasons.

The information provided by the project management to the stage of the inception report phase gives no possibility to assess the achievements of outcomes at national levels. So, to the moment it is impossible to evaluate impact pathways in different partner countries. Only general information is available from PIRs. The final PIR submitted as of 30 June 2011 and final repots show the overall successful story with the project *outputs*, and affirms 100% achievements in the implementation status except output 4.2.: "Alternative strategies for BGBD conservation and sustainable land-use management negotiated" fulfilled for 80%.

From the other hand, the formulation of the level achieved to the project *outcomes* mostly reflects the formal achievement of the project indicator, and provides very few information on the project possible impacts. Nevertheless, it is more or less evident from different examples that a progress towards the intended long-term impact could be indicated to the project end.
The progress of the project feeding to the global benefits resulted as a synergy of different activities at national level is also not clear, as it was not also absolutely evident from the project design that anticipated results would be fully adopted and agreed by all stakeholders (from grassroots level to policy makers even at national level), and would get univocal support in other tropical countries facing the similar problems.
Therefore, the ratings for outcomes, progress towards 'intermediate states', and Impact can be defined as following
Outcome Rating: **C:** The project's intended outcomes were delivered, but were not designed to feed into a continuing process after project funding
Rating on progress toward Intermediate States: **B:** The measures designed to move towards intermediate states have started and have produced results, which give no indication that they can progress towards the intended long term impact.
Impact: There are no achieved documented changes in environmental status during the project's lifetime (probably, this rating will be changed whilst further study)
Accordingly, the likelihood of *impact achievement* is **Likely**

Ii. Sustainability consideration

The sustainability issue has been addressed in the title of the project and its objectives, therefore project results on sustainability target should be quite clear. At the stage of the project design the sustainability assurance was not strong enough despite identification of the majority of risks and assumptions. Although the project has intended to invest in a number of activities (institutional infrastructure, Web-site, economic benefits assessment, support and replication of good practices, stakeholders' awareness and capacity building, and even policy support) aiming to maintain recognition of the importance of BGBD by stakeholders, nevertheless it was not evident from the documents that project outcomes would be widely supported and upscaled after project end at different levels: local, regional, national, and at the global all the more. The main risks of that were identified well, and came to the complex of weak political will, low experience, knowledge and skills in successful BGBD management at all levels, and stakeholders' commitments. From the other hand, no incentives of stakeholders to maintain achieved results have been identified at the project preparation and initial stages, which are the main impact drivers in the project of such design and goal.
The PIR (FY-11) states that "Environmental benefits .. could … not be expected given the complexities associated with linking environmental processes to the function of soil organisms or soil biodiversity. The project has contributed to the development of concepts on environmental and economic benefits… but we lack … to predict effect of management practices on these soil biological characteristics".

Thus we preliminary access the overall project sustainability as *moderately unlikely,* as it had no exit strategy, although a number of supporting activities have been undertaken.

297. Socio-political sustainability

Political context is unstable in some countries involved but predictable and was not a threat to project implementation and sustainability of its results and progress towards impact in general. From the other hand, the level of ownership by the main national and regional stakeholders does not seem sufficient to allow for the project results to be sustained. There are no evidencies in the documents received that regional or national governments are interested in supporting the project initiatives, although they took part in different conferences and meetings organized by the project. Only very few of site-specific "good" practices have been demonstrated that cannot be considered as sufficient to further replication and dissemination. To say the truth, a wide-scale adoption of sustainable land management practices was not the scope of this project, so environmental benefits in terms of improved productivity, reduced erosion, reduced incidence of pest and disease, reduction in inorganic fertilizer use or sequestration of soil carbon, etc have not been evaluated. On the other part, as a matter of this the project did not provide socio-political incentives to scale-up successful approaches and technologies, thus decreasing the sustainability of its results and progress towards anticipated impacts in BGBD management, including environmental benefits, reduced environmental threats and sustainable agricultural production. The ownership of the project concentrated only in Universities and scientific institutes could (and will) sustain only the knowledge management and (partly) capacity building impacts.

To the evaluator's opinion, this is a project's faulty it did not intend to develop adequate methods/initiatives to maintain project outcomes and follow-up replication and dissemination activities. Such activities should be supported by regional and national policy makers, relative legislation and enforcement, and planning.

298. Financial resources.

The project did not develop any strategy for financial sustainance of its results. Except mentioning of relatively low funds of US$ 95,000 received from Swedish Agricultural University to leverage the project in Kenya in 2007, TSBF-CIAT received a research grant from the Bill and Melinda Gates Foundation (see below), and leveraged financing to Tranche I of $1,621,629 and Tranche II of $2,446,504, no other data on the possible financing of the project outcomes and progress to impacts are available. There are evidencies that in some countries to the moment of evaluation the lack of financial resources seriously jeopardizes sustenance of project results and onward progress towards impact, e.g. even the project Web-site is outdated.

Therefore it can be preliminary concluded, that the continuation of project results and the eventual impact of the project critically depend on continued financial and institutional support. At the same time there are no evidencies that any adequate financial resources will be or will become available to implement the programmes, plans, agreements, monitoring systems etc. prepared and agreed upon under the project. Financial risk is crucial to the progress towards project impacts.

299. Institutional framework.

The project has stressed the general importance of soil health and soil ecosystem function in increasing agricultural production in a sustainable manner as alternative to fertilizer only options, and presented this view in the various fora. Different trainings and short-term courses provided by the project to students, scientists and NGOs also add to institutional sustainability in long-term perspective if to be sustained through adaptive and targeted long-term management. The project has effectively communicated the current status of BGBD as have been assessed in the benchmark areas, the threats to BGBD and possible consequences of further loss of BGBD.
From another point, the project was not really in the position to negotiate alternative strategies, action plans or policy frameworks, regulations and rules to manage BGBD and ecosystem services (cited from the final PIR). No other institutional initiatives except stakeholder workshops to attract attention of regional and national authorities, and not indicated "various boards and committees". The project has not engaged in negotiations on alternative land use scenarios and strategies for conservation of BGBD.
The overall institutional achievements of the project are low and robust to be futher enchanced to sustain project results and to lead those to impact on human behaviour and environmental resources.

300. Environmental sustainability

Project sites are subject to more or less predictable disasters or changes, so, significant environmental factors are not anticipated, which can influence the future flow of project benefits, as well as any project outputs or higher level results likely affecting the environment.

301. Replication and Catalytic Role

There is no doubt that the project is suitable for replication as it benefits important management practices in soil biodiversity conservation linked to sustainable land management in tropics. By sharing good practices and innovative approaches, the project team has attempted at sensitizing stakeholders about the benefits they can accrue through biological methods in agriculture and forestry. Nevertheless in the absence of favorable sustenance environment it is too early to discuss about replication effects, as project's broader outcomes are likely to take longer time to be achieved. But beyond what was carried out in the project, a minor follow-up action seems to have been taken to confirm the approach adopted by the project for promoting replication effects. Evaluated documents contain information of a few replication activities, but without detailed description, so it is hard to have a unique feeling on what is definitely occur. This needs additional field evaluation. In any case, the documents refer to the following:

- Demonstration and experiments done on farmer's fields, that have resulted in early adoption of new technologies.
- Some commercial companies are now packaging inoculums to address challenges of plant pests and diseases, nutrient uptake and fertility improvement.
- Project countries have results on different BGBD intervention technologies some which will directly benefit farming systems through enhancing nutrient cycling, controlling pests and diseases, establishing trees and tree nurseries, etc

- Lessons learnt in relation to the economic evaluation of BGBD, possible interventions to enhance soil life and environmental benefits that can be obtained from it.
- Contributed to the awareness and capacity of farmers and other stakeholders through farmer field days, demonstration days, and farmer participatory monitoring and evaluation exercises.

Despite of these activities, it is not clear that the project has developed any strategy of framework for scaling up its activities and outcomes, and progress to impacts that decrease the overall sustainability of the project results.

lii. Preparation and readiness

The evaluation template is provided in the Annex 4.

302. Were the project's objectives and components clear, practicable and feasible within its timeframe?

The project was a full-size GEF project with actual duration of almost 11 years (since discussion project concept and national endorsements in 2000 (conceptualization started even in 1996) to the project end in 2010). Despite of such a long time the project's objectives remained actual and clear during all the period of its implementation that makes the overall project success in achievement of its main objective. The project feasibility was also clear through its implementation by leading national universities and institutes under the supervision of world known Tropical Soil Biology and Fertility Institute of CIAT. However, the practicability of the project within the scope of its timeframe and funding seems to be doubtful from its very beginning. The project design determined its mostly scientific and "academic" style with prejudice to the interests of practical use. The overall project purpose formulated as "BGBD *conserved* and *sustainably managed* in globally significant forest ecosystems in seven tropical countries", particularly in means of outcomes 3 and 4 aimed on practical application of scientific results gained through components 1 and 2, should be considered as a bit ambitious, especially taking into account the "academic" ownership of the project, and weak connection to policy makers. The evidencies of successful *conservation* and *sustainable management* of BGBD are not obvious enough. Even globally accepted criteria for managing such landscapes or evaluating them in terms of biodiversity conservation or other features of interest to various sectors of society have yet to be developed within the project.

Another issue that is not clear enough is the global character of the project. Although is has been stated that "A global project networking partners in seven countries stands to gain substantial added value from the replication of activities", the last (replication activities) were not definitely clarified in the project documents, probably considering this as a follow-up project impact. In any case the total number of demonstration sites supported by the project can be considered as successful pilots but not enough to gain global benefit within project timeframe.

303. Were the capacities of executing agencies properly considered when the project was designed?

The project governance has a very complicated structure with quite various responsibilities of agencies/bodies involved. However, the capacities and role of main executors, consultants and advisors have been properly considered at the project start and refined after mid-term evaluation.

304. Was the project document clear and realistic to enable effective and efficient implementation? Were adequate project management arrangements in place?

Yes, the project document clearly described the Logical Framework, budget, and timetable of the main activities as well as provided the comprehensive complicated structure of the project governance and implementation, including scientific and practical goals, benchmark sites selection, research methodology, project baseline, assessment of project risks and sustainability, and project governance. Since tranche II the project document has been updated and included also detailed project logical framework with indicators, milestones and relative activities, full project organigramms, forms for project reporting, updated budget and full implementation structure with the clear description of roles and responsibilities of the project management and stakeholders.

305. Were the partnership arrangements properly identified and the roles and responsibilities negotiated prior to project implementation?

In each country, during the PDF-A and –B periods, the commitment of all the major stakeholders to and/or endorsement of, the project was secured through a series of consultations, meetings with farmer groups, scientists from other institutions, government and NGO representatives. This process was completed for each country by a National Workshop that brought together representatives of each stakeholder group to discuss the project objectives and outcomes, and plan their involvement.

The MTE noted, nevertheless, that despite of the Project Document encompasses a 'Stakeholder' chapter, in which country teams listed stakeholder (groups), at the time of evaluation, however, stakeholder involvement was still a rather an *adhoc* project component, although successful in a couple of countries.

306. Were counterpart resources (funding, staff, and facilities) and enabling legislation assured?

The project funds have been assured by the Letters of counterparts' financial commitments, including those *in cash* and *in kind*, and by the Endorsement letters submitted by each country.

307. Were lessons from other relevant projects properly incorporated in the project design?

Lessons from a number of projects with similar objectives have been used at the project design. The People Land Management and Environmental Change Project concerned with indigenous approaches to above-ground agrobiodiversity and implemented in a number of the same countries. Project sites were also shared with the Alternatives to Slash and Burn Agriculture (ASB) Project in Indonesia. Close links have also been established with a project funded by the Darwin Initiative entitled "Tools for monitoring soil biodiversity in the ASEAN region' with particular respect to the targeted research component. The project was also complement with the UNDP/GEF project: "Conservation and Sustainable Use of Dry land Agrobiodiversity" which concentrating on specific areas where various food crops of economic value originated. The total list of national projects linked to this under evaluation included 42 titles.

308. Were lessons learned and recommendations from Steering Committee meetings adequately integrated in the project approach?

The MTE noted that the project management model for the first tranche worked reasonably well, but workload and communication at the global level have been constraining. As a whole, staffing at the global level was too modest, and has led to periods of crisis management, lack of time to provide real scientific leadership, and hick-ups in communication. After refinement of the project

management structure to the tranche II the annual meetings of Steering Committee have become regular and provided the overall global supervision over the Project strategy, e.g. it was observed in SC meetings that a number of outputs and activities defined in the logframe and M&E plan do not adequately describe what the project is actually doing and that the related output targets are not realistic, and also that the project could and was not actually addressing measures for conservation of BGBD and it was not considered and a realistic and achievable target.

309. What factors influenced the quality-at-entry of the project design, choice of partners, allocation of financial resources etc.?

Initially some of the national executing institutions in the partner countries were not collaborating effectively with the other participating institutions in those countries. At the global level, countries have been operating rather independently and little exchange of experts has taken place.

In most cases the partnerships for the project are established in a rather ad hoc manner.

In cases of Outcome 3 and Outcome 4 the needs and incentives of relevant stakeholders, in particular private business, local communities and policy makers, within the project framefork and results have not been adequately assessed.

310. Assessment of the Quality of Project Design

Relevance		Evaluation Comments	Prodoc reference
Are the intended results likely to contribute to UNEPs Expected Accomplishments and programmatic objectives?		The project intented results are relevant with "Ecosystems Management" UNEP thematic area,	UNEP Medium Term Strategy (MTS) 2010-2013
Does the project form a coherent part of a UNEP-approved programme framework?		The project was coherent with Marrakesh Process objectives and cross-linked Task Forces, as well as with the most functions of the UNEP 10YFP on Resource Efficiency and SCP	UN A/CONF.216/5 A 10-year framework of programmes on sustainable consumption and production patterns
Is there complementarity with other UNEP projects, planned and ongoing, including those implemented under the GEF?		There are a few references in the project documents: (the UNDP-GEF ASB database and the emerging information from the UNEP-GEF PLEC project; the TSBF Soil Biodiversity Network as an activity within the DIVERSITAS Programme of IUBS, UNESCO and UNEP). Nevertheless, the level of complementarity with other projects seems to be higher than mentioned in the Project documents, and needs clarification at the following phases of evaluation	Prodoc June 2002, ##27, 55; ##27, 54 in Tranche II prodoc
Are the project's objectives and implementation strategies consistent with:	i) Sub-regional environmental issues and needs?	All participating countries with significant expertise in soil biology have tropical forests, representing a wide range of types (humid to sub-humid, lowland and mountainous). Several of the participating countries are "mega-diversity" nations, and all the sites chosen within each country are regions of particular relevance for global biodiversity concerns. These sites are currently under pressure for land conversion and agricultural intensification. They include a wide range of human population densities and land use intensities, from native	Prodoc June 2002, ## 19,20; annex L.

Relevance		Evaluation Comments	Prodoc reference
		forests to intensive monocultures and cattle ranches and degraded lands.	
	ii) the UNEP mandate and policies at the time of design and implementation?	The project at the time of its design and implementation has been consistent with the Nairobi Declaration on the UNEP Role and Mandate, and several functional divisions and Malmo Ministerial Declaration. To the time of the project preparation the importance of the conservation and sustainable use of biodiversity important to agriculture has been increasingly recognized and has been detailed in the decisions adopted by the Conference of the Parties (COP 4) to the CBD. To the end of the project it was still relevant to all of the redefined cross-linked five primary roles and consistent mainly with "Ecosystems Management" and partly with "Environmental governance" and "Resource efficiency" UNEP thematic areas	Prodoc June 2002, annex L. UNEP Medium Term Strategy (MTS) 2010-2013
	iii) the relevant GEF focal areas, strategic priorities and operational programme(s)? (if appropriate)	Key project activities are consistent with GEF Biodiversity FA, BD-2 Strategic Priority, OP 3 and OP 13	Prodoc June 2002, ##16, 17
	iv) Stakeholder priorities and needs?	At all sites, the interest of stakeholders, from government agencies to NGOs and farmers has been established in support of the project. National Governments in the participating countries in this project have all ratified the CBD. Agricultural development policies in all countries have also been established to promote land use/management practices that are sustainable and productive, while simultaneously conserving the environment.	Prodoc June 2002, ##19, 20, 21, Annex F
Overall rating for Relevance			HS
Intended Results and Causality			
Are the objectives realistic?		The overall goal is realistic, especially if being grounded to more feasible outcomes, and from global to national level. From the other hand, if being considered as a pilot project on the global issue announced, it should be carefully monitored for lessons learned and adaptive management to achieve transparent global benefits	Prodoc
Are the causal pathways from project outputs [goods and services] through outcomes [changes in stakeholder behaviour] towards impacts clearly and convincingly described? Is there a clearly presented Theory of Change or intervention logic for the project?		Yes, they are. The sequence of the project components itself provides the clear pathway from outputs to impacts. See also ToC analysis. Threats to soil biodiversity and causual analysis of its loss is also very logic	Prodoc, Logframe
Is the timeframe realistic? What is the likelihood that the anticipated project outcomes can be achieved within the stated duration of the project?		It seems not realistic, especially while being assessed after more than 10 years after project design, and taking into account the overall low rate of knowledge in soil biodiversity in global context, and in tropics particularly, and very few number of specialists working in this area. Frankly speaking, the world in general is still far from the wide knowledge of BGBD and its role in sustainable land management, and farmers and decision-makers are not ready to practice these indeed very important but still "academic" approaches. From the other hand, the project objective and proposed outcomes as the pilot attempts to go forward in traced	

Relevance	Evaluation Comments	Prodoc reference
	directions are quite desirable in the context of the global environmental benefits and knowledge support as well as of awareness raising and capacity buildings issues	
Are the activities designed within the project likely to produce their intended results	Not so simple question, because formulation of many activities have changed since start of Tranche II. Basically: not all of them even in Tranche II if to compare to performance indicators and verification means, e.g. to some extent 1.2., 2.1, 2.3., 3.4., 4.2., 5.2.	Logframe
Are activities appropriate to produce outputs?	Not all. See above	Logframe
Are activities appropriate to drive change along the intended causal pathway(s)	Yes, if measured against the overall project Objective, considering risks and assumptions and attentive monitoring of intended pathways.	Logframe
Are impact drivers, assumptions and the roles and capacities of key actors and stakeholders clearly described for each key causal pathway?	Not in details. The assumptions and risks at the base of project design are well identified; less so the impact drivers and stakeholders roles.	Logframe
Overall rating for Intended Results and causality		S
Efficiency		
Are any cost- or time-saving measures proposed to bring the project to a successful conclusion within its programmed budget and timeframe?	No in Tranche I Prodoc, except workplan and timetable. Yes since the Second Tranche. Those fully described in M&E annex and detailed Workplan	Tranche I Prodoc, Annex 2 Tranche II Prodoc. Annex M
Does the project intend to make use of / build upon pre-existing institutions, agreements and partnerships, data sources, synergies and complementarities with other initiatives, programmes and projects etc. to increase project efficiency?	Yes	Prodoc
Overall rating for Efficiency		S
Sustainability / Replication and Catalytic effects		
Does the project design present a strategy / approach to sustaining outcomes / benefits?	Yes, but seems not strong enough	
Does the design identify the social or political factors that may influence positively or negatively the sustenance of project results and progress towards impacts? Does the design foresee sufficient activities to promote government and stakeholder awareness, interests, commitment and incentives to execute, enforce and pursue the programmes, plans, agreements, monitoring systems etc. prepared and agreed upon under the project?	The project has a thorough analysis of the risks associated with the implementation of activities and proposes a set of thoughtful strategies to minimize these risks, but weak in the identification of factors that may influence the sustenance of project results and progress towards impacts	Logframe. Prodoc, section "Risks and Sustainability"
If funding is required to sustain project outcomes and benefits, does the design propose adequate measures / mechanisms to secure this funding?	No	
Are there any financial risks that may jeopardize sustenance of project results and onward progress towards impact?	Yes, they are, especially in maintenance of Information system and demonstation sutes. No incentives to that are obvious.	Prodoc, page 121, 118, 122
Does the project design adequately	Weakly	Logframe

Relevance		Evaluation Comments	Prodoc reference
describe the institutional frameworks, governance structures and processes, policies, sub-regional agreements, legal and accountability frameworks etc. required to sustain project results?			
Does the project design identify environmental factors, positive or negative, that can influence the future flow of project benefits? Are there any project outputs or higher level results that are likely to affect the environment, which, in turn, might affect sustainability of project benefits?		Very few negative environmental factors mentioned in general terms, e.g. "Adverse climatic conditions and natural disasters"	Logframe
Does the project design foresee adequate measures to catalyze behavioural changes in terms of use and application by the relevant stakeholders of (e.g.):	i) technologies and approaches show-cased by the demonstration projects;	Yes, but seems not strong enough	Logframe
	ii) strategic programmes and plans developed	The same, slightly improved in Tranche II	Logframe
	iii) assessment, monitoring and management systems established at a national and sub-regional level	The same	Logframe
Does the project design foresee adequate measures to contribute to institutional changes? [An important aspect of the catalytic role of the project is its contribution to institutional uptake or mainstreaming of project-piloted approaches in any regional or national demonstration projects]		Yes, but seems not strong enough. E.g. the revision of country policies in 3 countries has been intended, but the project itself did not plan direct investments for this purpose. Incentives for institutional changes were not determined	
Does the project design foresee adequate measures to contribute to policy changes (on paper and in implementation of policy)?		See above	
Does the project design foresee adequate measures to contribute to sustain follow-on financing (catalytic financing) from Governments, the GEF or other donors?		No	
Does the project design foresee adequate measures to create opportunities for particular individuals or institutions ("champions") to catalyze change (without which the project would not achieve all of its results)?		Yes, the project has defined key international and national agencies with necessary and unique skills and capacities	Prodoc, section "Stakeholder Participation"
Are the planned activities likely to generate the level of ownership by the main national and regional stakeholders necessary to allow for the project results to be sustained?		Does not seem so	

Relevance	Evaluation Comments	Prodoc reference
Overall rating for Sustainability / Replication and Catalytic effects		MU
Risk identification and Social Safeguards		
Are critical risks appropriately addressed?	See below	
Are assumptions properly specified as factors affecting achievement of project results that are beyond the control of the project?	Risks and assumptions (without distinction) have been properly addressed and specified towards project results: risks mostly concerned with activities and outputs less outcomes, and assumptions mostly related to overall goal and objective, and fundamental outcomes also. From evaluator's point of view this section should be also more site- and national specific	
Are potentially negative environmental, economic and social impacts of projects identified	Such impacts are not foreseen.	
Overall rating for Risk identification and Social Safeguards		MS
Governance and Supervision Arrangements		
Is the project governance model comprehensive, clear and appropriate?	Yes, the model is comprehensive, and links are clear, particularly after MTE changes has been made in the project governance. The only note is the uncertainty with the role of governmental representatives, especially in the case of their further role in the project sustainability and long-term outcomes and impacts, and also taking into account governmental institutional support and cofinancing	
Are roles and responsibilities clearly defined?	Yes, also the ProDoc contains clear ToRs for project personnel	
Are supervision / oversight arrangements clear and appropriate?	Yes	
Overall rating for Governance and Supervision Arrangements		S
Management, Execution and Partnership Arrangements		
Have the capacities of partner been adequately assessed?	Yes	
Are the execution arrangements clear?	Yes	
Are the roles and responsibilities of internal and external partners properly specified?	Yes. But the project management structure seems to be excessively complicated that can provide risks for partnership arrangements and implementation of the project activities	
Overall rating for Management, Execution and Partnership Arrangements		S
Financial Planning / budgeting		
Are there any obvious deficiencies in the budgets / financial planning	No	
Cost effectiveness of proposed resource utilization as described in project budgets and viability in respect of resource mobilization potential	The costs for each budget line are described with detail, and there seems to be an effective use of GEF funds.	
Financial and administrative arrangements including flows of funds are clearly described	Not in detail, particularly in concern with fund flows at the national level	
Overall rating for Financial Planning / budgeting		S

Relevance	Evaluation Comments	Prodoc reference
Monitoring	The assessment below is related to the Tranche II ProDoc as more developed in the context of M&E.	
Does the logical framework: capture the key elements in the Theory of Change for the project? have 'SMART' indicators for outcomes and objectives? have appropriate 'means of verification' adequately identify assumptions	Overall the logical framework matrix provides useful information, including elements needed for developing the ToC and SMART requirements to indicators. Indicators reflect however shortcomings in the formulation of outcomes, goal and objective (that often appear to reflect outputs rather than outcomes). At the same time 'means of verification' and assumptions identification (see Risk Identification above) are appropriate, and also baseline identification and data collection strategy added since Tranche II enhanced the Logframe capacities to be used as a M&E tool.	
Are the milestones and performance indicators appropriate and sufficient to foster management towards outcomes and higher level objectives?	See above + Basically the proposed performance indicators are appropriate and sufficient, and relevant, achievable and measurable in SMART terms. Nevertheless, a number of suggested indicators is excessive, and only 14 of 65 are time-bound. Some of them are too general and not SMART (e.g. "Capacity to manage and conserve BGBD improved", "Synthesis of national policy analyses.").	
Is there baseline information in relation to key performance indicators?	Yes, it has been provided in the Tranche II ProDoc	
Has the method for the baseline data collection been explained?	No	
Has the desired level of achievement (targets) been specified for indicators of Outcomes and are targets based on a reasoned estimate of baseline??	Partly so. Sometimes it is hard to assess how indicator reflects the desire, e.g. if the baseline for Outcome 2a is "The partner countries and the GCO had no databases at commencement of the project", it is hard to estimate if "at least 100 queries per year" used as an indicator can help to achieve the outcome formulated as "Inventory and evaluation of BGBD in benchmark sites representing a range of globally significant ecosystems and land uses."	
Has the time frame for monitoring activities been specified?	Yes, on year/month base	
Are the organisational arrangements for project level progress monitoring clearly specified	Yes, in terms of M&E and reporting responsibilities, methods of data collection, timetable for reporting, and even names of reporters, but the last only till December 2007.	
Has a budget been allocated for monitoring project progress in implementation against outputs and outcomes?	No	
Overall, is the approach to monitoring progress and performance within the project adequate?	Partly so.	
Overall rating for Monitoring		MS
Evaluation		
Is there an adequate plan for evaluation?	Yes, a M&E plan has appeared since Tranche II	
Has the time frame for Evaluation activities been specified?	The time frame for project reporting has been specified in Tranche II ProDoc	
Is there an explicit budget provision for mid term review and terminal evaluation?	No	
Is the budget sufficient?	Not applicable	

Relevance	Evaluation Comments	Prodoc reference
Overall rating for Evaluation		**MS**

311. Financial planning

The project document contains the full set of required financial information: detaled project budget by countries and by outcomes/components, detailed GEF financing and cofinancing budget by main categories of costs, alternative co-financing and commitments of different institutions by countries and international funds/organizations in cash and in kind, rules for financial reporting, cost overruns, and use of non-expendable equipment, forms for different financial statements and expenditures, incremental costs matrix, financial duties of the project's Administrative Assistant

Being updated to the Tranche II, the financial planning strategy also included audit reports, indicators for financial monitoring, requirements for financial officer position in the Country Project Coordinating Office.

The co-financing of the project's activities was successful: the project has got USD 9,885,182, which, according to the figures provided, exceeds the anticipated co-financing with leveraged funds of USD 2,446,504 or 32.9% of the initially intended.

312. M&E design

From the project start it has been stated that monitoring would concentrate on the management and supervision of project activities, seeking to increase the efficiency and effectiveness of project implementation, and ongoing evaluation would assess the project's success in producing each of the programmed activity milestones and outputs with respect to both quantity and quality. The roles of the project stuff in M&E process has been identified. Performance indicators were planned to be applied to the work-plan at the start of each year and utilized at each point of evaluation process. Impact evaluation as the assessment of the project's success in achieving its objectives has been proposed to make at mid-term (end of Phase 1) and at the end of the project.

The project M&E design has experienced strong upgrading at the second stage of the project implementation. In particular, it has been added:

Annual desk evaluation by UNEP/DGEF Coordination to measure the degree to which the objectives of the project have been achieved (in addition to the standard midterm and final evaluations as well as supervision missions conducted by the UNEP Project Management Officer and/or UNEP Fund Management Officer)

Execution performance concept: execution monitoring will assess whether the management and supervision of project activities is efficient and seek to improve efficiencies when needed so as to improve overall effectiveness of project implementation.

Indicators for evaluating whether project management unit are effectively operational

The concept of Delivered outputs with a table titled "Description and timing of expected outputs by project component", and based on the timing of expected outputs and milestones on the monthly base

Project Impact and Intervention Logic concept detailed with the List of Key Performance Indicators referenced to baseline and methods of data collection

Detailed responsibilities of the project stuff and bodies

Framework for progress reporting in table format

Checklist/timetable for principle substantial report to be delivered

313. Quality of the project logframe as a planning and monitoring instrument

The project logframe is well designed to serve like a tool for guiding project design (problems to be resolved, the means by which the problem will be addressed, direct and indirect consequences of the project interventions), as well as planning (intervention logic), and implementation/management and monitoring. It has been updated in 2008 to make project outputs and related activities more reasonable and feasible, and also to track possible progress towards achieving project objectives, impact and sustainability. The logframe used in PIRs basically reflects what has been provided in the Tranche II Project Document, but its structure was presented in the form of three separate sections: *Progress towards achieving the project objective and outcomes* (with description of indicators applied, baseline level, mid-term target, end target, level to date of evaluation, and progress rating), *Project implementation progress* (pointing Expected completion date, Implementation status as of date of evaluation (%), comments and problems to be addressed, and progress rating), and *Risks assessment* with level indication.

This structure provides opportunity to monitor project gaps and underline those under MS, MU, U and HU rating to be addressed in the Action plan, and propose/correct risk mitigating activities.

314. SMART-ness of indicators

The indicators mentioned in the logframe to assess the global objectives and broader outcomes are specific, measurable, achievable and relevant to the project objectives. From the other hand, the indicators provided in the logframe did not reflect the difference between project outcomes and outputs, and even main objectives. Moreover, in the text (#62) they called as Indicators of progress, and in the logframe matrix as Indicators of performance (page 76). It probably means that the difference between project results and hierarchy of the Theory of Change was not clear enough within the project.

315. Adequacy of baseline information:

The project has collected and presented a comprehensive set of baseline information, which is refered not only to the project objective and outcomes, but even to each activity/output with indication of data sources and methods to further collect information and monitor results. This information has been used in the logframe and PIRs to monitor project progress

316. Arrangements for monitoring

Explained in the preface to this (M&E) section above, which allows concluding that the responsibilities for M&E activities have been clearly defined, data sources and data collection instruments appropriate, and the frequency of various monitoring activities specified and adequate

317. Arrangements for evaluation

Targets for outputs have been specified by its titles and performance indicators refered to each activity, as well as to objectives and outcomes. Studied documents provide no information on the

adequate provisions in the legal instruments binding project partners to fully collaborate in evaluations.

The project monitoring and evaluation plans seem to be useful, in that they allow for a structured monitoring and evaluation of the progress which is useful for internal communication and planning processes as well as for the external communication (i.e. with donor and co-implementing organisation). However, it should be noted that depending on the project and the topics covered it was not always possible to set targets for the number of beneficiaries reached, or to set production targets or targets related to the improvement of livelihoods, or in terms of protected areas established or number of species effectively protected.

318. Budgeting and funding for M&E activities

This is not clear from the documents provided, because there is a zero funding in the M&E line in the project budget (in ProDoc) from one hand, but final PIR and MTE indicated that the project has budgeted for M&E activities.

liii. Complementarities with UNEP strategies and programmes

319. Linkage to UNEP's Expected Accomplishments

Although the final PIR stated that environmental benefits have not been explicitly addressed in the project, the review of Outcomes-to-Impacts detected that the project has contributed to the following expected accomplishments of UNEP cross-cutting Thematic Priorities (TP):

TP	Objectives	Expected accomplishments	Project contribution
Ecosystem management	Countries utilize the ecosystem approach to enhance human well-being *Impact indicator:* increase in environment-related budget allocated to ecosystem management	Countries and regions increasingly integrate an ecosystem management approach into development and planning processes. Countries and regions have capacity to utilize ecosystem management tools. Countries and regions begin to realign their environmental programmes and financing to address degradation of selected priority ecosystem services.	The project has contributed to the development of concepts on environmental and economic benefits in pilot countries. All the countries has pilot sites with demonstrations of sustainable BGBD management and conservation (should be double-checked in February-April). Ecosystem services assessment and based on this recommendations of alternative land use practices and advisory support system for policies that will enhance the conservation of BGBD through the ecosystehave been provided (should be double-checked in February-April). Policy makers are being involved at various stages during project workshops and community events. A global policy brief issued by the project (to double-check) assists countries to take up the policy recommendations and guidelines from the project. E.g. in Indonesia they have been able to get the importance of BGBD recognised and are now included (mentioned) in draft policy documents.
Environmental governance	Environmental governance at country, regional and global levels is strengthened to address agreed environmental priorities *Impact indicator:* increase in States' budget allocated to environment; number of legal and institutional frameworks adopted that empower the environment in	National development processes and United Nations common country programming processes increasingly mainstream environmental sustainability in their implementation National and international stakeholders have access to sound science and policy advice for decision-making	The project has stressed the importance of soil health and soil ecosystem function in increasing agricultural production in a sustainable manner as alternative to fertilizer only options, and presented this view in the various fora. Policy analyses have been conducted in a number of countries and it is striking that BGBD is not mentioned explicitly in any of the policies formulated. Conclusion is that there is a lack of data and information on BGBD, tools and techniques for inventory and monitoring, as well as lack of dissemination efforts. It is therefore that decisions of the CBD COP on the soil biodiversity initiative stress the importance of data and information All the country scientific websites are running in addition to the global project BGBD website. Inventory data completed in all project countries are downloadable from the WEB site; all scientific reports and publications are accessible through the WEB (should be double-checked in February-April). Participation in the project has certainly enhanced capacity of nationl Universities, has promoted and stimulated further research in BGBD and enhanced the status of the various departments that deal with the various aspects of BGBD.

	Government		
Resource efficiency	Natural resources are produced, processed and consumed in a more environmentally sustainable way *Impact indicator:* number of Governments introducing policy reforms; number of private sector initiatives leading to more efficient and less polluting use of natural resources	Investment in efficient, clean and safe industrial production methods is increased through public policies and private sector action	The project have indicated that there is great potential for further benefiting from activity of micro-symbionts (N2 fixing bacteria, AMF and other) as well as from other growth promoting micro-organisms and that there will be great environmental and economic benefits to be realized from biological intervention in production systems. The project demonstrations are continued in various ways with new funding and sometimes in new sites. In Cote d'Ivoir long term experiments in cacao plantations are continued with new funding.

320.

321. Alignment with the Bali Strategic Plan (BSP)

UNEP's Bali Strategic Plan has been depeloped for Technology Support and Capacity-building and requires UNEP to become increasingly responsive to country needs. The outcomes and achievements of the project fully demonstrate the alignment with objectives of this plan: (a) the scientific knowledge capacities of 7 developing countries and countries with economies in transition in BGBD inventory and management has been strenthened; (b) targeted support to main national Universities and institutes working in the field of biodiversity conservation and sustainable land management has bee provided. Through more than 190 scientists, 150 students, 11 NGOs, and extension workers involved in the project the overall countries' capacities in in BGBD inventory and management have been improved, (c) good practices in BGBD conservation and management in 7 countries have been studied and technologies mainstreamed throughout UNEP activities, (d) the cooperation among UNEP and a number of imternational and national project stakeholders engaged in environmental capacity-building was strenthened

322. Gender

The main concern of the project was to provide capacities for conservation and sustainable management of soil biodiversity in developing countries. As there were no direct link between the project design, implementation and monitoring with gender issues, the intervention is unlikely to have any differential impacts on gender equality and relationship between women and the environment. From the other hand, women scientists were very strongly represented in the project team. As far as engagement of the farmer community is concerned the project always made sure there was adequate representation of women farmers and women in the group and surveys carried out, acknowledging the (sometimes specific role) of women in agriculture.

323. South-South Cooperation

Seven countries with significant expertise in soil biology have joined together to participate in this project. The present capacity in soil biodiversity inventory and management has been built upon, or provided by "South-South" exchanges and training. South-South exchanges among stakeholder levels constituted an important part of capacity building component and add a value to the outcome 5 component as willed the integration of scientific and indigenous technical knowledge. Capacity building also involved dialogue to achieve reconciliation of the objectives of the agricultural and environmental sectors overseeing the development of the project benchmark areas.

More than 190 scientists, 150 students, 11 NGOs, and extension workers from developing tropical countries have been involved in the project and have benefitted from formal training (degree training), short term courses or through informal means through participation in the project. Conferences, workshops, agricultural shows, publications, media (print and visual) have been used to disseminate and create awareness of the BGBD Project and among pilot countries. Side events in CBDs and other international forums have been used by the project scientists to expose the project

All the project countries have experimented with and proposed local options to improve sustainable production and poverty alleviation through either alternative land uses or alternative management practices and have been communicated these through stakeholder workshop for the attention of regional and national authorities

Annex 7

Expertise of the evaluator (related to the evaluating project)

NAME: Kust German
CITIZENSHIP and COUNTRY OF RESIDENCE: Russian Federation
PROFESSIONAL INTERESTS: sustainable management of natural resources, environmental and land management, environmental education, environmental and agricultural ecology, soil science, biodiversity conservation, environmental services, landscape science, geography, geo-botany, agronomy, remote sensing data processing and application, GIS technologies.

General scientific interests can be determined as: “Evolution, development and functioning of biological and quazi-biological systems”, “Soil and Land resources”.
More than 190 publications in the field of soil science, landscape science, environmental conservation, organisation of ecological education.
Participant of more than 60 scientific symposiums, conferences, congresses, including more than 30 international.
The participant, responsible executor and leader of more than 70 scientific projects and grants, including more than 30 financed by international and foreign organisations and funds.

Experience in international programmes and projects (consultant, expert, leader, excecutor).
10-11.2012. International consultant for UNDP-Armenia in preparation of the UNDP-GEF project “Mainstreaming Sustainable Land and Forest Management in Dry Mountain Landscapes of Armenia”
06.2012 – current time. Member. Ad hoc Advisory Group of Technical Experts (AGTE) on impact indicator refinement. United Nations Convention to Combat Desertification, Bureau of the Committee on Science and Technology
04-06.2012. Terminal evaluator of the UNDP-GEF project in Armenia “Developing Institutional and Legal Capacity to Optimise Information and Monitoring System for Global Environmental Management”
04.2011 – current time. Expert Council member. Eurasian Centre for Food Security. Moscow, Russian Federation
2007 – c.time - Environmental specialist (member of the WB team missions) for the World Bank/GEF projects in Tajikistan and Moldova (Community agriculture and watershed management project, Land registration and cadastre system for sustainable agriculture, Uplands Livelihood and Environmental Management Project, Agricultural competitiveness, Environmental Land Management and Rural Livelihoods)
07-12.2010 – consultant (preparation of Social and Environmental Assessment Report) – WB-MIGA project “Grain Production Project in Penza region” (Russian Federation)
2008 – Consultant (soil resources specialist) for WWF project on the preparation of the Russian Federation country report to IBRD

2007 – Expert, Russian-Bahrain-Arabian Gulf countries programme “Arid Grow”
2003 – 2008 – Expert, Roster of the Scientific and Technical Advisory Panel of GEF (Global Environmental Facility
2004 – 2005 – Member, Advisory Committee for Biosphere Reserves, M&B Programme, UNESCO.
2002 – UNDP, Mid-Term Evaluation of the outcome of the UNDP-Russia Programme for Environmentally Sustainable Development (evaluator)
1999-2000 – UNEP Project “Desertification assessment and mapping in Southern Russia” (project co-leader).
1997-2002 - GEF Project “Biodiversity conservation” in Russia (executor of separate subprojects (1997-98), General Consultant (1998-2001) and consultant (2002) of the project.
1997-1998 - Russian-Germany working group on conservation of biodiversity (observer).
1997. Program of GEF co-operation development with NGOs (member of organising committee and consultant of an International seminar in Moscow, 1997).
1995. UNEP project FP/0321-95-01-2201 “Digitisation and preparation of the electronic atlas of desertification/land degradation in Southern and Eastern Pre-Aral region” Ї(project leader).
1993. Project of Mexican Ministry of Environment “Biosphere reserve “Los Pantanos de Sentla” (consultant).
1992. UNESCO expedition “Great Silk Roads” (participant).
1992-1995. Joint project of UNESCO and Ministries of science of Germany 509/RAS/40 “Aral sea ” (co-leader of subproject “Soil and plants diversity conservation in delta regions”.
1991-1992, 1994. UNEP project FP/6201-91-01-2230 “Desertification assessment in the Pre-Aral Sea region” (project leader)
1990 - Panel of senior consultants for UNEP Executive director (senior consultant).
1989-1991. UNEP Project FP/5201-89-01 “Assistance for the preparation of an action plan for the rehabilitation of the Aral sea” (team member).

EDUCATION

1996. The Doctor of Biology degree thesis “Desertification and soil evolution in dry areas” has been defended on Doctor's Council in Moscow university. Scientific degree - Doctor of biology (postdoc “professor” degree).
1988. The Ph.D. thesis “Soil alkalinity phenomenon and its diagnostics” has been defended on Specialised Scientific Council in Moscow university. Scientific degree - Ph.D. degree (candidate of biology).
1984. Soil Science faculty of Moscow Lomonosov State university (speciality - soil science and agrochemistry – Master degree)

Participation in the largest scientific projects, financed by Russian organisations.

2011 – current time – Develop proposals to improve the legal framework for soil protection and conservation, and for managerial ,organizational and financial mechanisms for the protection of soil degradation and desertification (Ministry of Natural resources – as responsible executor of the desertification component)

2010 – 2011 – Sustainable land management in southern regions of Russian Federation (Priority researches in Russian Federation federal programme – as scientific leader)
2006- current time – Soil resources and its role in biosphere and geosphere systems (Institute of ecological Soil Science, MSU. Fundamental research programme)
2007 –2009 – Soil and ecological aspects of soya growing in the southern Russia (Russian-Asian investment company – as scientific leader)
2007 – 2008. Field and remote methods of desertification assessment (Russian Foundation for Basic Researches grant - as scientific leader).
2004 – 2006. Fundamental approaches for the management of biological resources (Russian Academy of Sciences – as scientific leader of the subproject "Soil Resources")
2001-2003. Theoretical and mapping modelling of soil cover and landscape changes of Russian South during Holocene period (Russian Foundation for Basic Researches grant - as scientific leader).
1997- 2001. A structurally functional role of soils in biosphere and ground ecosystems (chief executor of the programs and projects under the uniform name, financed by Russian academy of sciences, Moscow State University, Federal programme "Universities of Russia ")
1996 - 1999. Soil and ecological monitoring at protected areas (section of the state program "Natural and anthropogenic evolution of soil cover", - as scientific leader).
1996-1997. Desertification / soil degradation map of Russia. Scale 1:2500000 (Russian Foundation for Basic Researches grant - as scientific leader).
1990-1995. Soil and landscape changes in conditions of global warming (project 4.4.1 of government scientific programme "Global changes in environment and climate" - as leader executor).

Basic facts in working experience in the country of residence.
2012 – current time. Institute of Ecological Soil Science of Moscow Lomonosov State university, Head of the laboratory of soil resources and ecological projecting. 7 scientists supervised
2006 – 2012 - Executive director of Institute of Ecological Soil Science of Moscow Lomonosov State university, Head of the laboratory of soil resources and ecological projecting. From 15 to 30 scientists supervised in different years.
1996 - current time. Professor. Chair of Soil Geography (before 2005 – Chair of General Soil Science), Soil Science faculty of Moscow University. I give courses of lections "Soil evolution", "Environmental doctrine", "Remote sensing application in environmental sciences" and others. Guide student's, Ph.D student's and postdoc's researches
07.2002 – 12.2002 – head of the department of geoinformatics, Research & Development Center ScanEx, Moscow. 7 scientists supervized
11.1998 – 11.2001 – General Consultant of GEF Project "Biodiversity conservation" in Russia. 5 people supervised directly with a branched structure of the project management
01.1996 - 2006 - Deputy director of Institute of Soil Science Moscow State University and Russian Academy of Sciences. From 15 to 70 scientists supervised in different years

1992 – 1999 – General director of the private company for landscape design (EcoPochva+ Ltd., Moscow). 25 workers supervised

One of the initiators both organisers the Institute of Soil Science MSU-RAS (1996), Department of landscape designing of the Ecological centre "Ecosoil" (1997), Ecological Travelling Centre (1998), Scientific and educational Centre "Upsilon" (2005).
Since 1988 (routinely) - leader or responsible executor of more than 60 scientific and practical projects, including those carried out under international organisations.
The organiser of 15 conferences and seminars (including 12 international, 6 - within framework of GEF activity).

Experience in teaching.
Since 1998 (routinely) – trainer for different courses (environmental education, legal environmental expertise practice, landscape design, soil and environmental assessment, etc)
Since 1996 – current time - professor of Soil Science faculty of Moscow State University (part time).
Since 1985 (routinely) - leadership of high school student works, and since 1990 - of postgraduate's Ph.D. thesis works.
Since 1985 (routinely) - chief of high school student's field practices.
02-05.1984 - Teacher of biology and chemistry in specialised school #60 in Moscow for the children with speech infringements.
The author and co-author of several courses at the Soil Science faculty of MSU ("Global mechanism of environmental and natural resources management", "Methodology of soil systematics", "Soil Evolution", "Theory and practice of landscape designing", "GIS technologies in environmental sciences", "Remote sensing applications for environmental sciences", "Global environmental tools and facilities").
Visited countries with field work experience: in Europe: Finland, Ukraine, Moldova, Great Britain, Germany, Spain, France, Greece; in North America: USA, Mexico; in South America: Brazil; in Africa: South Africa, Kenya; in Asia: China, Turkey, Uzbekistan, Kazakhstan, Turkmenistan, Kyrgyzstan, Tajikistan, Bahrain, United Arab Emirates

Awards and prizes
2011. World Bank. VPU Team Award.
2010. World Bank. Europe and Central Asia region. "Improving the Lives of People in ECA 2010" Competition.
2004. China. Urum c hi. International Centre for Desert Affairs. Academic Committee member.
1998. Russian Federation. Moscow Lomonosov State University. Shuvalov's Award

Annex 8.

Evaluation questionnaire (cut version)

Issue	Questions
Goals and objectives	The goal of this project was "*enhancing the conservation and sustainable management of below-ground biodiversity*". Can you provide any examples of the project results related in particular to the "conservation and sustainable management" Can you describe the possible long-term impacts of the project which have been discussed/arisen at the preparatory/initial stage What national realities have been adequately taken into account, both in terms of institutional and policy framework in project design and its implementation? How did it influence (has been integrated into) the scope of the project at global and national levels?
Country ownership	How did the project support the environment and sustainable development objectives of the countries involved? Please, provide any examples of governmental support/supervision throughout project implementation Have the governments approved policies in line with the project's outcomes and objectives? How can you access the level of country ownership in general: low, moderate, high?
Assumptions, Risks and sustainability assessment	What risks have been confirmed during project implementation? What was the process of the risk mitigation strategy? Please, explain MTE found that the project goals and stakeholders' expectations were on different levels. If it was confirmed by any examples, what is the more ambitious?
Preparation and Readiness.	Was the project workplan and management clear and realistic for effective and efficient implementation? Were the global project targets understandable at the national/local level?
Implementation Approach and Adaptive Management	The project governance at the global and national levels was complicated. Actually in different countries at national level some bodies were ineffective and/or unnecessary. Please, describe how it was actually organized in your country. To what extent the project implementation mechanisms outlined in the project document have been followed and were effective in delivering project outputs and outcomes. To which extent did project management respond to direction and guidance provided by the Steering Committee and IA supervision recommendations?
The logical frame-work and M&E	Please, explain the actual process and peculiarities in the project Monitoring and Evaluation framework. Were there any interesting findings and/or missings? Was the operational manual for M&E plan prepared? What decisions have been made through M&E? Categories, examples?
Effective partnerships arrangements	Please, explain the incentives of different stakeholders to participate in the project implementation (at its different stages, if possible) What was the coordination between countries' teams and how does it work at present time? What was an actual role of the Steering/supervisory committee in your country? Did the project implement appropriate outreach and public awareness campaigns? Examples. Describe the actual mechanism for solutions and agreements: voting, consensus, decree, formal order? Smth other?
Financial Planning	Were the accounting and financial systems adequate for project management and producing accurate and timely financial information (audit conclusions and recommendations)? Did the leveraging of funds (co-financing) happen as planned?
UNEP/TSBF	Did UNEP/TSBF provide quality support and advice to the project, approve modifications in time, and restructure

Issue	Questions
coordination	the project when needed? Did UNEP/TSBF provide the right staffing levels, continuity, skill mix, and frequency of field visits for the project?
Results: general issues	What has been done above the plan, what was planned but failed? Please, provide examples and explanation if needed. What can you say about actual level and difference in awareness on the basic project issues among main stakeholders? On the level of civil society and rural people? Except “official” outcomes, please, indicate possible direct and indirect impacts of the project activities, both positive and negative What are the impacts or likely impacts of the project? Any specific examples?
Overall results (attainment of objectives and outcomes)	Did the project/subprojects achieve its overall objective, in particular, what specific benefits have been achieved in terms of (1) Knowledge management, (2) awareness raising, (3) practical applications, and (4) environmental benefits Please, specify (comparing with the answer for similar question above) how the main gaps, risks and assumptions, and to what extent have been overcome? What still remains? Why? What are the recommendations on that?
Relevance, Effectiveness, & Efficiency (*)	Has the project been effective in achieving its expected outcomes? To what level (needs qualitative expert assessment)? Were there clear strategies for risk mitigation related with long-term sustainability of the project? What lessons can be learnt from the project regarding efficiency? How could the project have more efficiently carried out implementation (in terms of management structures and procedures, partnerships arrangements etc…)?
Mainstreaming	What were positive/negative results for civil society/local people? Examples? Were gender issues taken into account in project design and implementation and in what way has the project contributed to greater consideration of gender aspects? Possible role of NGOs, academic sector, others in mainstreaming and sustainability of the project results?
Sustainability	Are there any financial, social or political risks that may jeopardize the sustainability of project outcomes? Do the various key stakeholders see that it is in their interest that project benefits continue to flow? Is there sufficient public/stakeholder awareness in support of the project's long-term objectives? What is the level of political commitment to build on the results of the project? State of enforcement and law making capacity What relevant factors to improve the sustainability of project outcomes were used by the project in particular? Mark and provide examples/explanations: What barriers remain to achieving long-term objectives, or what necessary steps remain to be taken by stakeholders to achieve sustained impacts and Global Environmental Benefits? Is there evidence that project partners will continue their activities beyond project support?
Catalytic Role, Replication & Impact	What specific activities have been supported by the project that upscale new approaches to a national, regional or global level, with a view to achieve sustainable global environmental benefits. What lessons and experiences coming out of the project have been repeated and applied in different geographic areas or scaled up in the same geographic area? Did the project promote replication effects? If possible, indicate what extent of catalytic effect of the project has been achieved and provide examples for each: Scaling up : Approaches developed through the project are taken up on a regional / national scale, becoming widely accepted, and perhaps legally required Replication : Activities, demonstrations, and/or techniques are repeated within or outside the project, nationally or internationally Demonstration: Steps have been taken to catalyze the public good, for instance through the development of demonstration sites, successful information dissemination and training

Issue	Questions
	Production of a public good : The lowest level of catalytic result, including for instance development of new technologies and approaches. No significant actions were taken to build on this achievement, so the catalytic effect is left to 'market forces'
Conclusions, recommendations & lessons	
Lessons learnt and actions to follow up	Are national or international decision-making institutions prepared to continue improving their strategy for development of environmental information and monitoring system? How can the project build on its successes? How the risks to project outcomes will affect continuation of benefits after the GEF project ends?
Proposals for future directions	Has the experience of the project provided relevant lessons for other future projects targeted at similar objectives?
Best and worst practices	Please, indicate and list

Annex 9.

Evaluation questionnaire (full version)

Issue	Questions	Stakeholders					
		UNEP/ PCO	GEF/ FP, EA	SC; Line ministries	Gov NC bodies: Centres, etc	NGOs, academic inst, intedonors	Civ Soc., People
Key issues and general questions	Why this project has been designed for tropical regions? Lack of knowledge in soil biodiversity in these regions, or lack of awareness about BGBD in south-south countries, or smth else? Why no boreal or dry countries has been included, especially those where soil biodiversity is more or less studied and methods elaborated?	X	X	X	X	X	
	How did the project achieve Global Environmental Benefits, support the objectives of the Rio conventions, other international agreements? Examples (national reports, action plans, strategies and programmes, any specific indicators?).	X	X	X		X	
	Coordination of activities with conventions' focal points: mechanism, events, examples?	X	X	X	X	X	
	Specificity of the countries – advantages and weaknesses for the project cycle (preparation/implementation/results/sustainability)	X	X	X	X	X	X
	How did the project follow up recommendations made at MTE, especially those reflecting shift from inventory to good practices and SLM activities, and also those reflecting the global synergy from separate measures in different countries (updated work plans, strategies, adding values, national peculiarities, etc), review of performance indicators	X	X	X	X	X	
Project Formulation[34] (but also a few questions related to the project implementation and long-term results: see comment in the "issue" column)							
Goals and objectives	The goal of this project was "*enhancing the conservation and sustainable management of below-ground biodiversity*". What was the global context of the goal? General features and national peculiarities: how they have been taken into account?	X	X	X	X	X	
	Did the project supposed the participation of non governmental and private sector? If yes, how? If not, why? What were the changes in the approach while the project implementation?	X	X	X	X	X	
		X	X	X	X	X	X
		X	X	X	X	X	X

[34] Also a few questions related to the project implementation and long-term results: see comment in the "issue" column. Such approach provide a cross-check and verification opportunities whilst evaluation of different project phases and through various interviewers.

Issue	Questions	Stakeholders					
		UNEP/ PCO	GEF/ FP, EA	SC, Line ministries	Gov. NC bodies: Centres, etc	NGOs, academic inst, intedonors	Civ Soc., People
	What and why have been demonstrated?	X	X	X	X	X	X
	Principles for project sites selection (global approach and national peculiarities). Formal and actual						
	The project has supposed "to explore the hypothesis that, by appropriate management of above- and below-ground biota, optimal conservation of biodiversity for national and global benefits can be achieved in mosaics of land-uses at differing intensities of management and furthermore result in simultaneous gains in sustainable agricultural production". How did the idea appear? What was an approach and step-by-step plan to explore this presumption?	X X	X X	X X	X X	X X	X
	Was the model of participatory Information and Monitoring System for BGBD Management taken into account/considered/discussed while project formulation and design?	X	X	X	X	X	
	Can you describe the possible long-term impacts of the project which have been discussed/arisen at the preparatory/initial stage						
	What were the conflicts between policies to support biodiversity conservation and ecosystem protection and those of agricultural development/forestry? Please, specify						
Indicators/targets	If there were changes in project capacity result/indicators in comparison with GEF appraisal document (project proposal) : please, briefly explain major reasons	X	X	X	X	X	
	A few indicators/targets were not concrete (see logframe and list of key performance indicators). Why so? Why the project makes no difference between performance and progress indicators?	X	X	X	X	X	
Project Design of M&E	Did project design of M&E fit to the minimum requirements: • Indicators for results and impacts or if no indicators are identified, an alternative plan for monitoring that will deliver reliable and valid information to management; • Baseline for the project, with a description of the problem to be addressed, with key indicator data or if major baseline indicators are not identified, an alternative plan for addressing this within one year; • Identification of reviews and evaluations that will be undertaken, such as mid-term reviews or terminal evaluations; and • Organisational arrangements and budgets for monitoring and evaluation.	X	X	X			
Country ownership	How did the project support the environment and sustainable development objectives of the countries involved?	X	X	X	X	X	X

Issue	Questions	Stakeholders					
		UNEP/ PCO	GEF/ FP, EA	SC, Line ministries	Gov NC bodies: Centres, etc	NGOs, academic inst, intedonors	Civ Soc., People
	Did any new international and/or national governmental development and environmental agendas/plans/docs appear which have not been mentioned in Project initial docs?	X	X	X	X	X	
	Looking behind, do you think that the project was timely and consistent with global and national priorities to date? What can you suggest for the similar projects in other countries?	X	X	X	X	X	X
Country Ownership and Drivenness by three milestones: Design, implementation, results.	Assess the performance of the Governments, in particular: in how the Governments have assumed responsibility for the project and provided adequate support to project execution, including the degree of cooperation received from the various contact institutions in the countries involved in the project and the timeliness of provision of counter-part funding to project activities; to what extent the political and institutional framework of the participating countries has been conducive to project performance. Look, in particular, at the extent of the political commitment to enforce (sub-) regional agreements promoted under the project; to what extent the Governments have promoted the participation of communities and their non-governmental organisations in the project; and how responsive the Governments were to TSBF coordination and guidance, to UNEP's supervision and Mid-Term Evaluation recommendations.	X	X	X	X	X	X
Outcomes/activities	Third outcome/activity/component sounds as "Environmental information management and monitoring standards, norms, procedures and IT architectures are upgraded and respond to current national and international environmental information and monitoring needs". WHAT were/are the national mechanisms to determine current national requirements for environmental monitoring and information management? How this mechanism integrates into the international system of environmental monitoring and management? State before the project start and after. What were/are the national and international information requirements for environmental indicators?	X	X	X	X	X	X
	Please, explain the role of Task forces as you see them.	X	X	X	X	X	X
Stakeholders and their participation	Who was an initiator of the project idea? Main actors? Representatives of what part of civil society? Scientists, NGOs, government, international donors? What were the expectations of different stakeholders	X	X	X	X	X	

Issue	Questions	Stakeholders					
		UNEP/ PCO	GEF/ FP, EA	SC, Line ministries	Gov. NC bodies: Centres, etc	NGOs, academic inst, intedonors	Civ Soc., People
	What was the level of stakeholder participation in project design?	X	X	X	X	X	X
	How did the project support the needs of relevant stakeholders?	X	X	X	X	X	X
	Has the implementation of the project been inclusive of all relevant stakeholders?	X	X	X	X	X	X
	What were the capacities of the executing institution(s) and its counterparts considered when the project was designed?	X	X	X	X	X	X
	Please, explain joint activities and coordination with other donors working on related projects. How did GEF-funds help to fill gaps (or provide additional incentives) that were necessary but not covered by other donors? Were there coordination and complementarity between donors?	X	X	X	X	X	X
	Describe the coordination between countries? On what issues? Gaps and advantages?	X	X	X	X	X	X
	Except those pointed in different project document, can you, please, name those who in other ways have a stake in the outcomes of the project or activity related						
	What was common and specific in stakeholders' participation and cooperation in different countries?						
Stakeholder[35] Participation and Public Awareness by three milestones: Design, Implementation, Results.	The assessment will look at three related and often overlapping processes: (1) information dissemination between stakeholders, (2) consultation between stakeholders, and (3) active engagement of stakeholders in project decision making and activities. The evaluation will specifically assess: - the approach(es) used to identify and engage stakeholders in project design and implementation. What were the strengths and weaknesses of these approaches with respect to the project's objectives and the stakeholders' motivations and capacities? What was the achieved degree and effectiveness of collaboration and interactions between the various project partners and stakeholders during the course of implementation of the project? - the degree and effectiveness of any public awareness activities that were undertaken during the course of implementation of the project; or that are built into the assessment methods so that public awareness can be raised at the time the assessments will be conducted;	X	X	X	X	X	X

[35] Stakeholders are the individuals, groups, institutions, or other bodies that have an interest or stake in the outcome of the project, encompassing project partners, government institutions, private interest groups, local communities etc. The term also applies to those potentially adversely affected by the project.

Issue	Questions	Stakeholders					
		UNEP/ PCO	GEF/ FP, EA	SC, Line ministries	Gov. NC bodies: Centres, etc	NGOs, academic inst, intedonors	Civ Soc., People
	- how the results of the project (the new standard methods for characterization and evaluation of BGBD, the international information system on BGBD etc) engaged key stakeholders in improved management and conservation of BGBD.						
Assumptions, Risks and sustainability assessment	What risks have been confirmed during project implementation? What and why have become apparent or not while the project implementation? Examples?	X	X	X	X	X	
	From present point of view: do you think the sustainability assessment at the stage of project proposal was adequate? At the stage of project start?	X	X	X	X	X	
	What was the process of the risk mitigation strategy? Please, explain	X	X	X	X	X	X
	Were sustainability issues integrated into the design and implementation of the project? Evidence / quality of sustainability strategy. Evidence / quality of steps taken to ensure sustainability	X	X	X	X	X	X
	What was a mechanism for “adaptive management” of risks?	X	X	X	X	X	X
	On the later phases of the project implementation the lack of skilled personnel for was mentioned as a major weakness. Why it was not assessed at the preparatory stage?	X	X	X	X	X	X
	MTE found that the project goals and stakeholders’ expectations were on different levels. If it was confirmed by any examples, what is the more ambitious? What were the expectations? How can you explain the current situation? Any changes in comparison with the project start?	X	X	X	X	X	X
	MTE noted that a part of beneficiaries and stakeholders consider the existing legal framework satisfactory and the institutional framework efficient, as well as the existing norms and standards as mainly satisfactory. What do you think at present time: was that just a subjective/personal judgements or building capacities in law enforcement could be more effective than legislation updating and improvement?						
Lessons from other relevant projects, replication approach	Please, list such international and national projects and comment lessons incorporated	X	X	X	X	X	X
	How were lessons from other relevant projects incorporated in the project design?	X	X	X	X	X	X
UNEP comparative advantage	What is the project value added to the UN Development Assistance Framework (UNDAF) and UNEP MTS/PoW?	X			X	X	
Linkages between project and other	Please, list mutual efforts fulfilled/ cooperative results achieved with other IAs, EAs, programmes/projects, etc, including those mentioned in the Project Proposal and others more recent	X	X	X	X	X	

Issue	Questions	Stakeholders					
		UNEP/ PCO	GEF/ FP, EA	SC, Line ministries	Gov. NC bodies: Centres, etc	NGOs, academic inst, intedonors	Civ Soc., People
interventions within the sector, including management arrangements							
Preparation and Readiness. by three milestones: Design, Implementation, Results.	Were the project's objectives and components clear, practicable and feasible within its timeframe?			X	X	X	X
	Were the capacities of executing agencies properly considered?		X	X	X	X	X
	Was the project workplan and management clear and realistic for effective and efficient implementation?	X	X	X	X	X	X
	Were the partnership arrangements properly identified and the roles and responsibilities made consensus?	X	X	X	X	X	X
	Were counterpart resources (funding, staff, and facilities) and enabling legislation assured?	X	X	X	X	X	X
	Were adequate project management arrangements in place? Were lessons from other relevant projects properly incorporated?	X	X	X	X	X	X
	Were lessons learned and recommendations from Steering Committee meetings adequately integrated in the project approach?	X	X	X	X	X	X
	What factors influenced the quality- of the project design and implementation, choice of partners, allocation of financial resources etc.?	X	X	X	X	X	X
Project Implementation[36]							
General issues	Please, list seminars/workshops/conferences/round tables organized by the project (also summaries on their main results, solutions, agreements)	X	X	X	X	X	
	Please, list thematic reports, main conclusions/recommendations	X	X	X	X	X	
	Implementation of initial work plan (see Inception report, ch 9). Why was it not totally fulfilled? Any changes or disparities?	X	X	X	X	X	X
		X	X	X	X	X	X

[36] Also a few questions related to the project design and long-term results: see comments in the "issue" column. Such approach provide a cross-check and verification opportunities whilst evaluation of different project phases and through various interviewers.

Issue	Questions	Stakeholders					
		UNEP/ PCO	GEF/ FP, EA	SC, Line ministries	Gov. NC bodies: Centres, etc	NGOs, academic inst, intedonors	Civ Soc., People
	There were a few delays in the Project. Did that affect cost effectiveness? How it influenced the quality of the project activities and results?	X	X	X	X	X	X
	What national realities have been adequately taken into account, both in terms of institutional and policy framework in project design and its implementation? How did it influence (has been integrated into) the global scope of the project?	X	X	X	X	X	X
	Was an appropriate balance struck between utilization of international expertise as well as local capacity? Proportion of expertise utilized from international experts compared to national experts?						
Implementation Approach and Adaptive Management by three milestones: Design, Implementation, Results.	Analysis of approaches used by the project, its management framework, the project's adaptation to changing conditions, the performance of the implementation arrangements and partnerships, relevance of changes in project design, and overall performance of project management:	X	X	X	X	X	X
	To what extent the project implementation mechanisms outlined in the project document have been followed and were effective in delivering project outputs and outcomes. Were pertinent adaptations made to the approaches originally proposed?	X	X	X	X	X	X
	What was the the role and performance of the units and committees established and the project execution arrangements at all levels?	X	X	X	X	X	X
			X	X	X		
	Assess the effectiveness and efficiency of project management how well the management was able to adapt to changes during the life of the project?	X	X	X	X	X	X
	To which extent did project management respond to direction and guidance provided by the Steering Committee and IA supervision recommendations?	X	X	X	X		
	What were the administrative, operational and/or technical problems and constraints that influenced the effective implementation of the project, and how the project partners tried to overcome these problems?						
	Assess the extent to which MTE recommendations were followed in a timely manner.						
The logical framework	Were there any manuals to use LF as M&E tool?	X	X	X	X	X	
	Describe the level of coherence between project design and project implementation approach	X	X	X	X	X	X
	How was an adaptive management approach used to ensure efficient resource use? How was results-based	X	X	X	X	X	

Issue	Questions	Stakeholders					
		UNEP/ PCO	GEF/ FP, EA	SC, Line ministries	Gov NC bodies: Centres, etc	NGOs, academic inst, intedonors	Civ Soc., People
	management used during project implementation?	X	X	X	X	X	X
	Please, assess the availability and quality of financial and progress reports, timeliness and adequacy of reporting provided, quality of results-based management reporting (progress reporting, monitoring and evaluation). Were they helpful? If not, why? If yes, what and whom for?						
Effective partnerships arrangements	Meetings of stakeholders, SC? How regular were they? Main issues have risen? Key solutions (to get protocols for examples)? Examples of how NGOs suggestions were taken into consideration and working plan improvement		X	X	X	X	
	Were a steering committee/national steering committees given responsibility to liaise with the project team, recognizing that more than one responsible organization/ministry/institute should be involved? How different representatives been involved whilst the project framework/implementation	X	X	X	X		
	What was an international cooperation within the project?	X	X	X	X	X	X
	What was a role and level of different stakeholders in project implementation (table by groups)? Their incentives/motivation to participate in the project? Main benefits and inputs? Cooperation/partnership and subordination/independency issues? Any changes in partnerships whilst the project implementation?	X X	X X	X X	X X	X X	X X
	The ProDoc mentions more regional and local bodies as carrying project functions and participators. Did they participate in the project? What was their role?	X	X	X	X	X	X
	Provide a full list of the project beneficiaries and indicate what did they benefit (compare to the project document, MTE, track the dynamics). Compare and add/exclude the list of the main beneficiaries from the Project document .	X	X	X	X	X	X
	Did the project consult with and make use of the skills, experience, and knowledge of the appropriate government entities, nongovernmental organizations, community groups, private sector entities, local farmers, and academic institutions in the design, implementation, and evaluation of project activities? Examples	X	X	X	X	X	X
	Did the project implement appropriate outreach and public awareness campaigns? Examples.	X	X	X	X	X	X
	Please, indicate specific activities conducted to support the development of cooperative arrangements between partners at international, national and local levels. Provide examples of supported partnerships. Evidence that particular partnerships/linkages were sustained. Types/quality of partnership cooperation methods utilized.	X	X	X	X	X	X
	Were any occasions/attempts to deny anybody to participate in the project, at what stage, and why? Any NGOs? Academic institutions? Universities, governmental bodies? If yes, please, explain the reasons	X	X	X	X	X	X
	Describe the mechanism for solutions and agreements: voting, consensus, decree, formal order? Smth other?	X	X	X	X	X	X

Issue	Questions	Stakeholders					
		UNEP/ PCO	GEF/ FP, EA	SC, Line ministries	Gov NC bodies: Centres, etc	NGOs, academic inst, intedonors	Civ Soc., People
	Did all involved stakeholders and beneficiaries realize the importance of the respective Project issues? Were they all motivated to participate in the project?	X	X	X	X	X	
	What were the advantages and gaps in the project organization and management in different countries and in general? Was the project coordination and management effective enough, and why?						
Feedback from M&E activities used for adaptive management	Describe the adaptive management/feedback mechanism from M&E activities used indeed. Did it differ from what has been proposed in the Project document? Any manual developed for adaptive management?	X	X	X	X	X	
	Were there changes in the environmental and development objectives of the project during implementation, why these changes were made and what was the approval process? If yes, what were the possible reasons for changes: - original objectives were not sufficiently articulated; - exogenous conditions changed, due to which a change in objectives was needed; - project was restructured because original objectives were overambitious; - project was restructured because of a lack of progress; - other (specify).	X	X	X	X	X	
	Describe changes made during project implementation, especially after MTE (outputs, indicators, baseline, target values, risks, M&E plan, Log Frame, what else revised?)	X	X	X	X	X	
Financial Planning	Were the accounting and financial systems adequate for project management and producing accurate and timely financial information (audit conclusions and recommendations)?	X	X	X	X		
	Level of discrepancy between planned and utilized financial expenditures? Planned vs. actual funds leveraged? Cost in view of results achieved compared to costs of similar projects from other organizations? Adequacy of project choices in view of existing context, infrastructure and cost?	X	X	X	X	X	
	Financial control, reporting and planning? Examples of change in project design/ implementation approach (i.e. restructuring) when needed to improve project efficiency.	X	X	X	X	X	
	Were financial resources utilized efficiently? Could financial resources have been used more efficiently?	X	X	X	X	X	
	Was procurement carried out in a manner making efficient use of project resources?	X	X	X	X		
	What were the main factors for financial planning? On what base? Annual? Quarterly? As a feedback from M&E? Systematic or not? What was a role of SC, project stuff, other stakeholders?	X	X	X	X	X	
	Co-financing – main sources and amounts. Any fundraising activities for the outcomes sustainability?	X	X	X	X		
	Did the leveraging of funds (co-financing) happen as planned?	X	X	X	X		

Issue	Questions	Stakeholders					
		UNEP/ PCO	GEF/ FP, EA	SC, Line ministries	Gov NC bodies: Centres, etc	NGOs, academic inst, intedonors	Civ Soc., People
	If there was a difference in the level of expected cofinancing and the cofinancing actually realized, what were the reasons for the variance? Did the extent of materialization of cofinancing affect project outcomes and/or sustainability, and, if so, in what ways and through what causal linkages?	X	X	X	X	X	
	Were there any activities related to the project components supported by external funders and well integrated into the overall project	X	X	X			
	Was there financial audits? Main results, findings and recommendations applied?	X	X	X			
	Table on leveraged funds by countries and different sources and totally (planned and de facto)						
Financial Planning and Management by three milestones: Design, Implementation, Results	Look at actual project costs by activities compared to budget (variances), financial management (including disbursement issues), and co-financing:	X	X	X	X		
	Were proper standards (clarity, transparency, audit etc.) and timeliness of financial planning, management and reporting applied to ensure that sufficient and timely financial resources were available to the project and its partners?	X	X	X	X	X	
	Did such administrative processes as recruitment of staff, procurement of goods and services (including consultant), preparation and negotiation of cooperation agreements etc. influence project performance?	X	X	X	X		
	What resources did the project leverage since inception? Please, indicate how these resources are contributing to the project's ultimate objective..	X	X	X	X		
	Were any effects on project performance from any irregularities in procurement, use of financial resources and human resource management? Were measures undertaken by the EA or IA to prevent and/or respond to such irregularities adequate?						
Monitoring and evaluation: design and implementation	Was the operational manual for M&E plan prepared?	X	X	X			
	Please, demonstrate how proposed M&E framework has used a baseline (including data, methodology, and so on), SMART (Specific. Measurable. Achievable and Attributable. Relevant and Realistic. Time-bound, Timely, Trackable and Targeted) indicators and data analysis systems, and evaluation studies at specific times to assess results and adequate funding for M&E activities.	X	X	X			
	Please, demonstrate the time frame for various M&E activities and standards for outputs as well as an indication of how the project, where applicable and feasible, involved in evaluation activities should have been specified.	X	X	X	X		
		X	X	X			
		X	X	X	X		

Issue	Questions	Stakeholders					
		UNEP/ PCO	GEF/ FP, EA	SC, Line ministries	Gov NC bodies: Centres, etc	NGOs, academic inst, intedonors	Civ Soc., People
	Please, describe how the budget for M&E activities has been set out.	X	X	X	X	X	
	Regularity of reporting and its correspondence to the project documents (for example, M&E plan)	X	X	X			
	Assess the value and effectiveness of the monitoring and evaluation reports and evidence that these were discussed with stakeholders and project staff. Provide examples of how M&E plan has been used for adaptive management?	X	X	X			
	Give examples how PIR self-evaluation ratings were consistent with the MTE and current M&E findings. If not, were these discrepancies identified by the project steering committee and addressed?	X	X	X			
	Provide examples of M&E plan compliance with the progress and financial reporting requirements/ schedule, including quality and timeliness of reports	X	X	X			
	Arrangements for monitoring: Have the responsibilities for M&E activities been clearly defined? Were the data sources and data collection instruments appropriate? Was the frequency of various monitoring activities specified and adequate? In how far were project users involved in monitoring?	X	X	X			
		X	X	X	X		
	Arrangements for evaluation: Have specific targets been specified for project outputs? Has the desired level of achievement been specified for all indicators of objectives and outcomes? Were there adequate provisions in the legal instruments binding project partners to fully collaborate in evaluations?	X	X	X			
		X	X	X	X	X	
	Budgeting and funding for M&E activities: Determine whether support for M&E was budgeted adequately and was funded in a timely fashion during implementation.						
	Were any proper training, instruments and resources provided for parties responsible for M&E?						
	How did the project M&E policy and activities correlate with UNEP Evaluation manual? To track the consistence (through my notes within UNEP EM document)						
	What decisions have been made through M&E? Categories, examples?						
	Did application of the project M&E fit to the minimum requirements?						
	• Indicators for implementation are actively used, or if not a reasonable explanation is provided;						
	• The baseline for the project is fully established and data compiled to review progress reports, and evaluations are undertaken as planned; and						

Issue	Questions	Stakeholders					
		UNEP/ PCO	GEF/ FP, EA	SC, Line ministries	Gov NC bodies: Centres, etc	NGOs, academic inst, intedonors	Civ Soc., People
	• The organisational set-up for M&E is operational and budgets are spent as planned.						
UNEP coordination, backstopping and operational issues	UNEP supervision issues (verify the quality and timeliness of project execution in terms of finances, administration and achievement of outputs and outcomes): Appropriate focus on results Suitability of chosen executing agency for project execution Adequacy of UNEP supervision over the Executing Agency at international and national levels Quality and timeliness of technical support to the Executing Agency and project team at international and national levels The realism and candour of supervision project reporting and ratings (i.e. are PIR ratings an accurate reflection of the project realities and risks); The quality of risk management Responsiveness of the managing parties to significant implementation problems (if any) The emphasis given to outcome monitoring (results-based project management) The quality of documentation of project supervision activities; and Financial, administrative and other fiduciary aspects of project implementation supervision. Any salient issues regarding project duration, for instance to note project delays, and how they may have affected project outcomes and sustainability Did UNEP staff identify problems in a timely fashion and accurately estimate their seriousness? Did UNEP provide quality support and advice to the project, approve modifications in time, and restructure the project when needed? Did UNEP provide the right staffing levels, continuity, skill mix, and frequency of field visits for the project?	X	X	X	X	X	
Global and National execution	Issues: Appropriate focus on results and timeliness Adequacy of management inputs and processes, including budgeting and procurement Quality of risk management, Candor and realism in reporting Were university-based executions effective? What were the relationships with countries' national programmes and budgeting? Were there any national peculiarities in the project executing despite the common operational scheme? Functioning of different stakeholders: GCO, PSC, SAC, PAC, GPC, PIC, NPAC, and others (actual duties and functions, regularity of meetings, examples of decisions, M&E process, coordination and effectiveness, role and	X	X	X	X	X	X

Issue	Questions	Stakeholders					
		UNEP/ PCO	GEF/ FP, EA	SC, Line ministries	Gov NC bodies: Centres, etc	NGOs, academic inst, intedonors	Civ Soc., People
	effectiveness of different representatives in PIC– scientists, NGOs, government officers, farmers, others)						
Project Results							
General issues	What has been done above the plan, what was failed? Examples and explanation needed.	X	X	X	X	X	X
	What weaknesses and barriers preventing an effective management of environmental information and an effective monitoring of the environment (in details listed in Project document) have been overcome?	X	X	X	X	X	X
	Issues to discuss about:	X	X	X	X	X	X
	Quality of data base and Information system in analysis and processing.						
	Sufficiency of data and information on BGBD for further management						
	BGBD monitoring issues, comparability of data (seasonal, annual fluctuations, etc)						
	Inter-agency fragmentation and cooperation of monitoring institutions.						
	Reasonableness, site-specificity and significance of selected studied groups of soil biota						
	Level of technical equipment for the observation network and information processing and transfer						
	Correspondence of activities and reports to the requirements of the project and actual needs and incentives						
	BGBD monitoring and data collection lack clear procedures and clear responsibilities given to relevant agencies.						
	Willingness to provide adapted scientific information to the public and policy makers						
	Enforcement and legislation on soil biodiversity issues. Specific gaps within the legal framework related.						
	Inadequate financial resources allocated to BGBD monitoring, information processing and exchange, and management	X	X	X	X	X	X
	What can you say about actual level and difference in awareness on the basic project issues among main stakeholders? On the level of civil society and rural people?	X	X	X	X	X	X
		X	X	X	X	X	X
	Except “official” outcomes, please, indicate possible direct and indirect impacts of the project activities, both positive and negative	X	X	X	X	X	X
	What are the impacts or likely impacts of the project? Any specific examples?						
	How did project outputs and outcomes increment overall project goal and objective?						

Issue	Questions	Stakeholders					
		UNEP/ PCO	GEF/ FP, EA	SC, Line ministries	Gov NC bodies: Centres, etc	NGOs, academic inst, intedonors	Civ Soc., People
Overall results (attainment of objectives and outcomes)	Did the project/subprojects achieve its overall objective (by indicators and in free explanation), in particular, what specific benefits have been achieved (examples by different directions, institutes/ministries, public society) in comparison with the project baseline	X	X	X	X	X	X
	Please, specify (comparing with the answer for similar question above) how the main gaps, risks and assumptions, and to what extent have been overcome? What still remains? Why? What are the recommendations on that?	X	X	X	X	X	X
	What are the means developed/prepared/suggested/tested by which BGBD may be adequately managed and conserved in tropical agricultural landscapes?	X	X	X	X	X	X
	Please, list and briefly describe demonstration plots with demonstration activities and assess their usefulness qualitatively	X	X	X	X	X	X
	To review achievements on the project objectives and expected outcomes (by selective examples)	X	X	X	X	X	X
	What kind of limitations in human resources and scientific capacity in some of the participating countries (which of them) have the impact on the project outputs/outcomes in different countries? How did it manifest? Examples?	X	X	X	X	X	
	The main issues identified at MTE in June 2005 were: “Data sharing turned out to be a problem, the magnitude of which was underestimated at project inception; inappropriate know-how in the field of biometrics in some countries and late involvement of experts in this field harmed quality of outputs; National budgets and expenditure, and project activities were poorly linked which may have caused hidden budget deficits, as the budget-cum-work plan structure at the time might have allowed such developments to go unnoticed” How did these issues have been addressed? Any changes since that evaluation?						
Relevance, Effectiveness, & Efficiency (*)	Has the project been effective in achieving its expected outcomes? To what level (to follow up and assess indicators from evaluation matrix)?	X	X	X	X	X	X
	How well were risks, assumptions and impact drivers being managed? Completeness of risk identification and assumptions during project planning and design	X	X	X	X	X	
	What was the quality of risk mitigation strategies developed? Were these sufficient? Quality of information systems to identify emerging risks and other issues?	X	X	X	X	X	X
	Were there clear strategies for risk mitigation related with long-term sustainability of the project? Quality of risk mitigations strategies developed and followed?	X	X	X	X	X	

Issue	Questions	Stakeholders					
		UNEP/ PCO	GEF/ FP, EA	SC, Line ministries	Gov NC bodies: Centres, etc	NGOs, academic inst, intedonors	Civ Soc., People
	What lessons can be learnt from the project regarding efficiency? How could the project have more efficiently carried out implementation (in terms of management structures and procedures, partnerships arrangements etc…)?	X	X	X	X	X	
	Describe any cost- or time-saving measures put in place in attempting to bring the project to a successful conclusion within its programmed budget and (extended) time. How delays, if any, have affected project execution, costs and effectiveness?		X	X	X	X	
	How successful was a project in its specific issues, in particular:						
	How successful was the project in establishing internationally accepted standard methods for characterization and evaluation of BGBD, including a set of indicators for BGBD loss?						
	How successful was the project in creating an inventory and evaluation of BGBD in the benchmark sites?						
	To what extent was the project successful in creating sustainable and replicable management practices for BGBD conservation in the 7 countries?						
	To what extent did the project improve capacity of relevant institutions and stakeholders to implement conservation management of BGBD in a sustainable and efficient manner in and beyond the participating countries?						
	How successful was the project in enabling global information exchange network for BGBD?						
	How successful was the project in enhancing BGBD conservation through recommendations of alternative land use practices and an advisory support system?						
	To what extent did the provision of an advisory support system for BGBD conservation improve decision making for stakeholders, particularly policy makers?						
Country ownership	Are the project results in line with the sectoral and development priorities and plans of the countries involved?	X	X	X	X	X	
	Are project outcomes contributing to national development priorities and plans? and developing with involvement from government officials, and have been adopted into national strategies, policies and legal codes?	X	X	X	X	X	
	Have the governments approved policies in line with the project's outcomes and objectives?	X	X	X	X	X	
	How do the recipient governments maintain its financial commitment to the project and its outcomes?	X	X	X	X	X	
	How can you access the level of country ownership in general: low, moderate, high?	X	X	X	X	X	X

Issue	Questions	Stakeholders					
		UNEP/ PCO	GEF/ FP, EA	SC, Line ministries	Gov NC bodies: Centres, etc	NGOs, academic inst, intedonors	Civ Soc., People
Mainstreaming	How the project are mainstreaming successfully other UNEP priorities listed in MTS	X	X	X		X	
	What were positive/negative results for civil society/local people? Examples?	X	X	X	X	X	X
	Were gender issues taken into account in project design and implementation and in what way has the project contributed to greater consideration of gender aspects, (i.e. project team composition, gender-related aspects of pollution impacts, stakeholder outreach to women's groups, etc)? If so, indicate how	X	X	X	X	X	X
	Possible role of NGOs, academic sector, others in mainstreaming and sustainability of the project results?	X	X	X	X	X	X
Sustainability	Did the project adequately address financial and economic sustainability issues? Are the recurrent costs after project completion sustainable? Level and source of future financial support to be provided to relevant sectors and activities after project ends? Evidence of commitments from international partners, governments or other stakeholders to financially support relevant sectors of activities after project end?	X	X	X	X	X	X
		X	X	X	X	X	X
		X	X	X	X		
	Are there financial risks that may jeopardize the sustainability of project outcomes? What is the likelihood of financial and economic resources not being available once GEF assistance ends?	X	X	X	X	X	
	Are there any social or political risks that may threaten the sustainability of project outcomes? Do the various key stakeholders see that it is in their interest that project benefits continue to flow? Is there sufficient public/stakeholder awareness in support of the project's long-term objectives?	X	X	X	X	X	X
	What is the level of political commitment to build on the results of the project? State of enforcement and law making capacity	X	X	X	X	X	X
		X	X	X	X	X	
	What relevant factors to improve the sustainability of project outcomes were used by the project in particular? Mark and provide examples/explanations:	X	X	X	X	X	X
		X	X	X	X	X	
	Development and implementation of a sustainability strategy/exit strategy.	X	X	X	X	X	X
	Establishment of the financial and economic instruments and mechanisms to ensure the ongoing flow of benefits once the GEF assistance ends (from the public and private sectors, income generating activities, and market transformations to promote the project's objectives).	X	X	X	X	X	X
		X	X	X	X	X	X
	Development of suitable organizational arrangements by public and/or private sector.	X	X	X	X	X	X
	Development of policy and regulatory frameworks that further the project objectives.	X	X	X	X	X	X

Issue	Questions	Stakeholders					
		UNEP/ PCO	GEF/ FP, EA	SC, Line ministries	Gov. NC bodies: Centres, etc	NGOs, academic inst, intedonors	Civ Soc., People
	Incorporation of environmental and ecological factors affecting future flow of benefits.	X	X	X		X	
	Development of appropriate institutional capacity (systems, structures, staff, expertise, etc.).		X	X			
	Identification and involvement of champions (i.e. individuals in government and civil society who can promote sustainability of project outcomes).	X			X	X	X
		X	X	X		X	
	Achieving social sustainability, for example, by mainstreaming project activities into the economy or community production activities.		X	X	X		X
	Achieving stakeholders' consensus regarding courses of action on project activities.				X		X
	What barriers remain to achieving long-term objectives, or what necessary steps remain to be taken by stakeholders to achieve sustained impacts and Global Environmental Benefits?						
	Did any changes appear in the number and strength of barriers such as: Knowledge about BGBD at global and national level, institutional and economic incentives for stakeholders, cross-institutional coordination and inter-sectoral dialogue, coordination of policy and legal instruments						
	Are there risks to the environmental benefits that were created or that are expected to occur? Evidence of potential threats.						
	Is the capacity in place at international, national and local levels adequate to ensure sustainability of the achieved results? Elements in place in those different management functions, at the appropriate levels (national and local) in terms of adequate structures, strategies, systems, skills, incentives and interrelationships with other key actors. In particular:						
	Limited human resources and low skills of those specialists targeted on the support/implementation/development of the data base and Information System – do you consider this as a big problem? Please, explain with examples.						
	What are the main incentives of different stakeholders to support the System, to use data and analytic/monitoring information? Is it a self-supporting System? What is the role of government and other different actors in the System? Please, explain their motivation.						
	Were the results of efforts made during the project implementation period well assimilated by organizations and their internal systems and procedures? Degree to which project activities and results have been taken over by local counterparts or institutions/organizations		X	X	X		
				X	X	X	X

Issue	Questions	Stakeholders					
		UNEP/ PCO	GEF/ FP, EA	SC, Line ministries	Gov. NC bodies: Centres, etc	NGOs, academic inst, intedonors	Civ Soc., People
	Is there evidence that project partners will continue their activities beyond project support? Level of financial support to be provided to relevant sectors and activities by in-country actors after project end What do you think about possible participatory and public support of the Information System and data base? About commercial use of the project results? Please, explain how it is supported at present time. Any recent trends and dynamics in the supporting system appeared? What do you think about dynamics and further development of the project scientific and practical results (indicators, mechanisms, methods, etc)? What are the possibilities to develop? Resources for this? Sustainability and motivations to support Web-site? By whom? Responsibilities? Please, list legal acts or laws prepared and/or adopted to consider BGBD in the path of agricultural development How the conflicts between policies to support biodiversity conservation and ecosystem protection and those of agricultural development have been mitigated?						
Catalytic Role, Replication & Impact	What specific activities have been supported by the project that upscale new approaches to a national, regional or global level, with a view to achieve sustainable global environmental benefits.	X	X	X	X	X	X
	To what extent the project has:	X	X	X	X	X	X
	catalyzed behavioural changes in terms of use and application by the relevant stakeholders of: i) technologies and approaches show-cased by the demonstration projects; ii) strategic programmes and plans developed; and iii) assessment, monitoring and management systems established at a national and sub-regional level;						
	provided *incentives* (social, economic, market based, competencies etc.) to contribute to catalyzing changes in stakeholder behaviour;						
	contributed to *institutional changes.* An important aspect of the catalytic role of the project is its contribution to institutional uptake or mainstreaming of project-piloted approaches in the regional and national demonstration projects;						
	contributed to *policy changes* (on paper and in implementation of policy);						
	contributed to sustained follow-on financing (*catalytic financing*) from Governments, the GEF or other donors;	X	X	X	X	X	X
	created opportunities for particular individuals or institutions ("*champions*") to catalyze change (without which						

Issue	Questions	Stakeholders					
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	the project would not have achieved all of its results).	X	X	X	X	X	X
	What lessons and experiences coming out of the project have been repeated and applied in different geographic areas or scaled up in the same geographic area but on a much larger scale and funded by other sources?	X	X	X	X	X	X
	Did the project promote replication effects?	X	X	X	X	X	X
	What are the factors that may influence replication and scaling up of project experiences and lessons?						
	Please, provide examples/number/quality of replicated initiatives, e.g.: Knowledge transfer (i.e., dissemination of lessons through project result documents, training workshops, information exchange, a national and regional forum, etc); Expansion of demonstration projects; Capacity building and training of individuals, and institutions to expand the project's achievements in the countries involved or other regions; Use of project-trained individuals, institutions or companies to replicate the project's outcomes in other regions.	X	X	X	X	X	X
	Give examples of other catalytic impact of the project on political and economic activities, and civil life. Please indicate and specify possible long-term environmental effects: verifiable improvements in ecological status, biodiversity conservation, land improvement, etc verifiable reductions in stress on ecological systems existence of process/trends indicators that suggest such impacts should occur in the future as a result of project achievements. regulatory and policy changes at national and/or local levels knowledge and skills improvement impacts on local populations, global environment (for example, any increase in the number of individuals of an endangered species, improved water quality, increase in fish stocks, reduced greenhouse gas emissions), replication effects, and other local effects others	X	X	X	X	X	X
	Please indicate what extent of catalytic effect of the project has been achieved and provide examples for each: Scaling up : Approaches developed through the project are taken up on a regional / national scale, becoming widely accepted, and perhaps legally required Replication : Activities, demonstrations, and/or techniques are repeated within or outside the project, nationally or internationally Demonstration: Steps have been taken to catalyze the public good, for instance through the development of demonstration sites, successful information dissemination and training						

Issue	Questions	Stakeholders					
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	Production of a public good : The lowest level of catalytic result, including for instance development of new technologies and approaches. No significant actions were taken to build on this achievement, so the catalytic effect is left to 'market forces'						
Conclusions, recommendations & lessons							
Corrective actions for the design, implementation, monitoring and evaluation of the project	Lessons learned from the project regarding achievement of outcomes?	X	X	X	X	X	X
	Possible changes could have been made (if any) to the design of the similar project in order to improve the achievement of the project's expected results?	X	X	X	X	X	X
	What are the main challenges that may hinder sustainability of efforts? Any recent changes or trends?	X	X	X	X	X	X
	What could be the possible measures to further contribute to the sustainability of efforts achieved with the project (business strategy, education strategy and partnerships, knowledge management, etc.)	X	X	X	X	X	X
Actions to follow up or reinforce initial benefits from the project	Which areas/arrangements under the project show the strongest potential for lasting long-term results?	X	X	X	X	X	X
	Are national or international decision-making institutions prepared to continue improving their strategy for development of environmental information and monitoring system?	X	X	X	X	X	
	How can the project build on its successes and learn from its weaknesses in order to enhance the potential for impact of ongoing and future initiatives	X	X	X	X	X	X
	How the risks to project outcomes will affect continuation of benefits after the GEF project ends?	X	X	X	X		
	What has been done to ensure that M&E data will continue to be collected and used after project closure? Did this project contribute to the establishment of a long-term M&E system? If it did not, should the project have included such a component? Is the system sustainable—that is, is it embedded in a proper institutional structure and does it have financing?	X	X	X	X	X	X
Proposals for future directions	Has the experience of the project provided relevant lessons for other future projects targeted at similar objectives?	X	X	X	X	X	X
Best and worst practices	Please, indicate and list	X	X	X	X	X	X

Annex 10

Meetings, workshops, conferences organized or attended by the project

Training workshops

Title	Venue	Dates
Global Data Analyses workshop – Below Ground Biodiversity Organized by the CSM-BGBD project in collaboration with IRD, Bondy Paris	IRD, Bondy, Paris	28 Sept – 5 Oct., 2008
Training Workshop on Collembola Ecology and Systematics Organized by the CSM-BGBD project in collaboration with the National Museums of Kenya	National Museums of Kenya, Nairobi, Kenya	24-28 November, 2008
AMF Inoculum Production Training Organized by the CSM-BGBD project and CSM-BGBD Kenya component	School of Biological Sciences, University of Nairobi, Kenya	21-30 September 2007
ing workshop on AM Fungi and Ectomycorrhiza nized by the CSM-BGBD project and UAS, Bangalore, India	University of Agricultural Sciences, Bangalore, India	21-25 March, 2005
Termite and Ant Taxonomy and Training Course Organized by the CSM-BGBD project in collaboration with the National Museums of Kenya	National Museums of Kenya, Nairobi	13-18 December, 2004
Nematode Taxonomy Training Organized by the CSM-BGBD project in collaboration with the NMK, Nairobi	NMK, Nairobi	6-12 December, 2004
Earthworm Taxonomy Training Organized by the CSM-BGBD project in collaboration with NMK	NMK, Nairobi	15-20 November, 2004
Molecular Technique Workshop Organized by CSM-BGBD project and BIOSBRASIL in collaboration with CIAT	International Centre for Tropical Agriculture (CIAT) Cali, Colombia	29 Sept- 7 Oct. 2003

Annual meetings, Workshop and Conferences

Not included in this list are the events organized by the CSM-BGBD project country components. All countries have organized their own national events. These include the closing events of the project in the participating countries.

Title	Venue	Dates
Conservation and Sustainable Management of Below-Ground Biodiversity: Closing Conference Organized by the CSM-BGBD project	World Agroforestry Centre, Nairobi, Kenya	17-21 May, 2010
Workshop on Economic Evaluation of Environmental Benefits of managing belowground biodiversity (BGBD) and lessons learned Organized by the CSM-BGBD hosted by CSM-BGBD Uganda component	Kampala, Uganda	7 -11 December, 2009
rds a synthesis of demonstration and experiments on management of **BGBD**	IBIS hotel, Plateau, Abidjan	September 28 to November 3, 2009

nized by the CSM-BGBD project, hosted by CSM-BGBD Ivorian component		
Global synthesis on inventory of BGBD: Writing workshop Organized by the CSM-BGBD project	Merica Hotel, Nakuru, Kenya	11-15 May, 2009
Annual Programme Review, Project Steering and Advisory committee meeting Organized by the CSM-BGBD project	World Agroforestry Centre, Nairobi, Kenya	November 19 – 21, 2008, Nairobi, Kenya
Annual review and combined Project Steering and Project Advisory Committee meeting Organized by the CSM-BGBD project, hosted by CSM-BGBD India component	Calicut (Kohzikode), Kerala State, India	29 Oct – 3 Nov, 2007
Workshop Pan-Amazônico: Biodiversidade do Solo Organized by BIOSBRASIL, Amazon Initiative and the CSM-BGBD project	Universidade Federal do Acre, Rio Branco, Acre, Brasil	26-29 September, 2007
Planning and kick-off meeting Phase II CSM-BGBD project Organized by the CSM-BGBD project, hosted by CSM-BGBD Mexico component	Instituto de Ecologia, Xalapa, Mexico	25–31 May, 2006,
Annual Project Meeting and conference 2005; Project steering group meeting Organized by CSM-BGBD and BIOSBRASIL	Manaus, Brazil (participants: 74)	11-18 April, 2005
Annual Project Meeting and Project steering group meeting Organized by CSM-BGBD project hosted by CSM-BGBD Kenya component	Embu, Kenya	23-29 February, 2004
CSM-BGBD Global Workshop II Organized by the CSM-BGBD project, hosted by CSM-BGBD Indonesia	Sumberjaya, Lampung, Indonesia	February 24-28, 2003
Economic Evaluation of Below Ground Biodiversity: Planning Workshop Organized by the CSM-BGBD project	Quissac, France	February 18-20, 2003
Start-Up Workshop Organized by the CSM-BGBD project	Department of Plant Sciences, Wageningen Agricultural University (WUR), The Netherlands	26 – 30 August, 2002

Side events to COP or SBSTTA, organized by CSM-BGBD project or in which the CSM-BGBD project participated

Title	Venue and organization	Date
Conservation of below-ground biodiversity through agro-ecosystems management	CSM-BGBD organized side event and press conference held during the COP8 and MOP3, Curritiba, Brazil, 2006	March 22, 2006
Mainstreaming below-ground biodiversity in a changing climate	CSM-BGBD organized side event and panel discussion held during SBSTTA 14 held at UNEP, Nairobi	May 19, 2010
Conservation and sustainable use of agricultural biodiversity	UNEP-DGEF organized side event during the SBSTTA 13, held at FAO Rome, 2008	15 February, 2008
Securing sustainability through the conservation and use of agricultural biodiversity	UNEP –DGEF organized side event at the COP10, held at Nagoya, Japan	18-29 October, 2010

Assessment of anticipated results (outcomes and outputs) in accordance with the project logframe

Only marked with green have been addressed in the Final technical report directly

Red – indicators/outputs not clear to the project end

INTERVENTION LOGIC	INDICATORS OF PERFORMANCE	MEANS OF VERIFICATION	BRIEF EVALUATION OF DISCREPANCIES
Development Objective (project goal): Conservation and sustainable management of below-ground biodiversity is enhanced.	By the end of the project, BGBD conservation practices identified, tested implemented and made available to the public.	Publication on concepts of conservation of below-ground biodiversity. Reports on adoption of concept of conservation of BGBD by key stakeholder groups Proposed action and investment plans for conservation and management of BGBD formulated across stakeholder groups.	The availability of BGBD conservation practices are not transparent through the prism of incentives to apply, because market circumstances were not taken into account.
	Capacity to manage and conserve BGBD improved	Reports on capacity (in terms of awareness, knowledge and skills and infrastructure) of key stakeholder groups	It is obvious from different indicators that capacities of different roups of stakeholders have been improved. There are also some figures, but no formal reports on capacity
Purpose: BGBD conserved and sustainably managed in globally significant forest ecosystems in seven tropical countries.	A minimum of three improved ecosystem services (e.g., nutrient cycling, soil structure modification, crop nutrient capture enhancement, control of soil borne and pest diseases, carbon sequestration, etc.) demonstrated in all the seven partner countries by 2008. At least 20 farmers in each benchmark area in each partner country adopt BGBD conservation practices by 2008.	Sites for demonstration of conservation practices in place. Reports of successful demonstration of methods on project website and in national and international media	There are very few evidences of understanding these functions as ecosystem services. There is not enough information from all partner countries on this.
	• Biodiversity threatened areas identified and measures to conserve them put in place by 2009 in the benchmark areas of all the partner countries. • At least 2 interest groups in each of the partner countries and 2 interest groups at the global level promoting/and or adopting alternative strategies for conserving below ground biodiversity by 2008. A BGBD project internet based information system operational and providing links to other global initiatives and national initiatives (i.e. WEB portals and databases) BGBD website and internet based database is being accessed by up to 10,000 hits per year	Synthesis reports on status of BGBD and associated ecosystem services (looking at loss of BGBD and invasive species where relevant associate with change in land use Reports on stakeholder inventories Dissemination and exchange of information between stakeholders. Stakeholder workshops National and global databases and WEB sites established Reference information on methods for characterization and inventory available. Reference information on BGBD in Benchmark areas available (synthesis reports made available through WEB sites). Links between BGBD WEB site and other main WEB site on biodiversity and sustainable agriculture.	Not clear what was meant under threatened areas. If project sites, then it seems to be fine. If others, that was not fulfilled. Lack of such synthesis reports to the project end BGBD project internet based information system is not operational to the moment of evaluation. The BGBD website statistics is unavailable. Reference information on BGBD in Benchmark areas is unavailable through project WEB site. Links between BGBD WEB site and other main WEB site on biodiversity and sustainable agriculture are poor and not helpful.
Outcome 1 Internationally accepted standard methods for characterization and evaluation of BGBD, including a set of indicators for BGBD loss.	Methods for characterization and evaluation of BGBD available to global community by 2007. At least three indicators for BGBD loss tested, documented and being used by at least 5 biophysical scientists in each of the partner countries. BGBD loss indicators identified and published in journals and being accessed and used by at least 3 partner countries and other international scientists.	Manual on standard methods for inventory of BGBD published by 2007 (after per review) Reports and publications on indicators of loss of BGBD.	No discrepancies. Very successful

INTERVENTION LOGIC	INDICATORS OF PERFORMANCE	MEANS OF VERIFICATION	BRIEF EVALUATION OF DISCREPANCIES
Activity 1.1 Select, standardize and test methods for characterizing BGBD at landscape and farm level	Agreement on standard methods for inventory of BGBD across the partner countries. Methods for sampling and characterization of BGBD applied and tested in each of the benchmark sites (11). Manual on standard methods for inventory of BGBD published by 2007.	• Report of annual meeting and meetings at national level on standard methods. • Technical reports by country programmes Publication on synthesis of results on standard methods for the inventory (sampling) of BGBD.	• No formal agreements available
Activity 1.2 Identify and test key indicator (s) of BGBD loss	Understanding of below-ground biodiversity as indicator of soil quality (soil related ecosystem functions) improved through experiments in each of the benchmark areas. Indicators for loss of BGBD tested across all benchmark areas.	• Report on on-farm experiments investigating role of BGBD in relation to ecosystem functions. Report from individual country programmes on indicators tested	• Not enough information for all country partners available
Activity 1.3 Methods for evaluating the economic (and livelihood) benefits of BGBD for stakeholders (at local, national and global scales)	Guidelines for economic valuation of BGBD established and applied in cases studies in each of the country programmes demonstrating economic benefits derived from management of BGBD. • Valuation manual written and made available globally.	• Workshop reports on methods (and guidelines) for economic valuation Case study reports from each of the country programmes • Manual for economic valuation of BGBD	• There were a few activities on this purpose in few countries, but no methods and/or manuals available
OUTCOME 2A) Inventory and evaluation of BGBD in benchmark sites representing a range of globally significant ecosystems and land uses. **OUTCOME 2B)** A global information exchange network for BGBD.	Inventory and evaluation of BGBD in the benchmark sites added to existing databases. Databases and information systems installed and functional in all the seven countries and accessed nationally and internationally by at least 100 queries per year.	• Reports and publications from project participants and other stakeholders • Website with database information Secondary documents utilising project data.	• No transparency in functionality of information system in all countries, although in visited countries there are impressive positive results on this item. • Project website is also not functional
Activity 2.1 Land-use mapping of benchmark areas	Comparative description of the benchmark areas of the project in terms of the ecosystem characteristics, socio-economic characteristics and lands use (including land use intensity) made available by 2005 by using: Satellite imagery and aerial photographs. Ground truthing of land use categories. Digital databases. Land use intensities. Agreed sampling locations.	• Land-use maps and reports • Diagnostic tool for calculation for land-use intensity • Reports on land use intensity for individual benchmark areas Synthesis and comparative description of benchmark areas	• Seems to be done in all countries
Activity 2.2 Apply agreed methods for BGBD characterization to full range of land-use intensities in each of the benchmark areas	Planned sample collection completed and characterized samples analyzed using agreed methods. Loss of BGBD in relation to land use intensity established by 2006, for each of the benchmark areas.	• Sampling windows and sample locations identified • Catalogued collections • Voucher specimens • National database of BGBD by land-use intensification • Synthesis report on results from the inventory	• Very successful
Activity 2.3. Soil health in benchmark area in relation to BGBD evaluated	Soil (biological) quality assessed for representative sites in each of the benchmark areas. Planned sample collection completed and characterized samples analysed using agreed methods.	• Status report on the targeted ecosystem services and soil biological quality for each of the benchmark areas.	Soil health is a new developing concept hard to be evaluated. There are a few evidences to apply the concept in some countries, but not available in relation to the each of the benchmark areas
Activity 2.4 Information on BGBD in relation to land use freely available	WEB portal (or WEB site) established by (or for) each of the BGBD country programmes by 2008. Links established with 4 WEB sites (or portals) associated with initiatives of international stature, dealing with biodiversity or sustainable land management.	• Database design/format shared and used by project participants in all countries. • Global project WEB site established and 'global' database available on WWW Country programme WEB sites established (including links with CP database)	• Information on BGBD in relation to land use is not freely available from the project web portal. Global Data base is not functional, but there are some national successful examples

Intervention Logic	Indicators of Performance	Means of verification	Brief Evaluation of discrepancies
Outcome 3 Sustainable and replicable management practices for BGBD conservation identified and implemented in pilot demonstration sites in representative tropical landscapes in the seven countries.	At least three demonstrations sites per country contributing to sustained conservation of diverse land uses in each of the partner countries by 2008. At least 20% of the farmers demonstrated to taking up knowledge on BGBD technologies.	• Documentation of the practices in project reports, articles & by media Number of farmers taking up the technologies.	• To the moment of evaluation the growth in application of technologies is not evident in all countries, but only where extension services is well organised. Incentives of farmers are low because of market circumstances not taken into account. Concrete figures of the number of farmers taking up the technologies are not available
Activity 3.1 Characterize farm management and land and crop management practices	Socio-economic conditions in each of the benchmark areas established by 2005 Land an crop management practices documented for each of the benchmark areas by the end of 2005 Stakeholder awareness on BGBD documented in 6 benchmark areas by 2005.	• Reports of the socio-economic survey carried out in selected sites in the benchmark areas • Reports on farm and land management practices Report on stakeholder awareness for individual benchmark area and synthesis report	• The comparative analysis with the changes to the end of the project was important, but not available
Activity 3.2 Select and evaluate management practices for BGBD conservation	Management options and intervention strategies identified for each of the benchmark areas. Agreement with stakeholders on site selection, intervention and project planning by March 2006 At least two demonstration sites selected per benchmark area	• Management practices documented. • Minutes of stakeholder meetings and workshop reports. Project plans for the second tranche/ management of demonstration sites	• Seems to be successful
Activity 3.3 Implement practices for BGBD management and conservation in pilot demonstration sites.	At least two demonstration sites established by 2006, at least two demonstration sites still operational by in 2007 Field days and stakeholder meeting held	• Management committee and implementation plan • Reports with documentary evidence of success of management practices Media reports	• Seems to be successful
Activity 3.4 Evaluate environmental benefits of BGBD conservation and sustainable land-use management	Assessment of economic, social and environmental cost and benefits of improved management of BGBD across scales for different stakeholders for each country programme completed by 2008. Synthesis of national analyses to assess global perspective (s)	• Report of case studies on economic and environmental evaluations. High impact journal article(s).	• There are quite a few assessment studies available, which do not draw the synthetic picture of global environmental benefits
Outcome 4 Recommendations of alternative land use practices and an advisory support system for policies that will enhance the conservation of BGBD.	Recommendations that support BGBD conservation are made available for land-use policy decision makers in the partner countries before 2009. In at least three partner countries agreements reached with policy makers on policy issues that ensure the implementation of alternative management practices that conserve BGBD and ecosystems at local and national levels.	Reports, memorandums, land management guidelines and gazettes. BGBD information included in national and regional policy documents.	• Hard to evaluate effectiveness using these indicators, although a number of papers have been published and disseminated and meetings organized. There are a few evidences of inclusion BGBD information in policy documents, but no facts about advisory support system for policies
Activity 4.1 Scenario analyses and policy evaluation for conservation of BGBD	Development scenarios formulated and analyzed for impact on BGBD for each of the benchmark areas. Gaps in existing national policies regarding the conservation and management of BGBD identified for each of the BGBD countries Synthesis of national policy analyses.	Report on stakeholder awareness of BGBD Reports on scenario analyses Review of existing policy documents on contents related to BGBD for each of the BGBD countries Global synthesis of BGBD country reports published	• There were a number of policy analysis reports and policy briefs prepared, but not available for all country parties. Scenario analyses are not available
Activity 4.2 Negotiate alternative strategies for BGBD conservation and sustainable land-use management	Effective institutional linkages established with government bodies or institutions that deal with policy analyses or policy formulation Conduct stakeholder workshops at each benchmark area to address land use policies related to biodiversity and sustainable agricultural production. BGBD project is consulted on, creates awareness for, or advocates policies for, conservation and sustainable management of BGBD	Memoranda of Understanding; minutes of meeting Workshop reports Side event to international convention meetings or programmes organized by BGBD Reports/minutes of special sessions or workshops organized by national or global stakeholders (special committees), for which BGBD is invited. Conference proceedings.	• Very few linkages still operational on regular basis, although there are effective examples in Kenya and Mexico • Discussed alternative strategies are not clear enough from the project documents

INTERVENTION LOGIC	INDICATORS OF PERFORMANCE	MEANS OF VERIFICATION	BRIEF EVALUATION OF DISCREPANCIES
Activity 4.3 Propose actions and policies at local and national scales	Demonstration sites secured for at least another three years by the end of the programme at least for one benchmark areas for each of the country programmes. Propose amendments on BGBD to existing action (or investment) plans addressing biodiversity conservation and sustainable agricultural production.	Means secured for maintenance demonstration sites beyond duration of this project. Minutes of (committee) meetings where proposals are tabled.	• Although there are successful example from Brazil and Mexico, the maintenance of all demonstration sites actually is poor because of their remoteness and lack of incentives
OUTCOME 5 Improved capacity of all relevant institutions and stakeholders to implement conservation and management of BGBD in a sustainable and efficient manner.	At least 80 well trained partner scientists, 5 farmers and 2 NGOs promoting BGBD technologies and knowledge in the partner countries by 2009. BGBD research and management capacity institutionalized in scientific institutions in participating countries by 2007. Policy makers using BGBD information to revise policy by 2008.	Staffing levels for soil biology and related disciplines. Decision makers take up and utilise soil biology information. Newly introduced policies and policy instruments. Extension manuals and flyers disseminated. Farmers, extensionists and NGOs applying and transfer BGBD knowledge to other stakeholders.	• No evidences on revising policies and taking up BGBD information in all country parties • Policy briefs available are not convincing enough
Activity 5.1 Enhance capacity in disciplines identified as lacking in cooperating countries	By the end of the project at least 150 persons belonging to university staff, national research organisations etc. trained on technical matters in short term (international) training courses. By the end of the project 100 students trained on topics related to conservation and sustainable management of BGBD. Training events and sensitisation workshop conducted at the benchmark areas to improve capacity of farmers, extension workers and NGOs to interpret and apply information on BGBD, as a collaborative effort of stakeholders.	Course certificate Research thesis Training materials on management of BGBD developed and incorporated in training materials for natural resource management and integrated soil fertility management for farmer and local stakeholder organisations	• Evidently successful
Activity 5.2 Enhanced awareness and knowledge of BGBD and its functions among stakeholders from farmers to national planners	At least one stakeholder workshops conducted for each of the benchmark sites, involving stakeholders from local to national (and international) level. Project document and outputs distributed through established network of persons, institutions and organisation dealing conservation of natural resources and sustainable agricultural production. Publication of scientific reports and papers, representation of the BGBD project at international scientific conferences. Knowledge of soil biota and its management disseminated to farmers, extensionists and NGOs Decision-makers utilise soil biodiversity information in national and regional plans.	• Workshop report • Mailing and distribution lists for posters, leaflets, newsletters, brochure, project reports etc. • Proceedings of conferences and symposia, scientific papers etc. • Training materials • Policy documents	• Evidently successful except policy documents

iv. Domestic and Global Benefits achieved

	Baseline	Alternative	
Outcome 1. Internationally accepted standard methods for characterization and evaluation of BGBD, including a set of indicators for BGBD loss.			
Domestic Benefits	Inability to efficiently assess BGBD reduces country capacity for sustainable soil fertility management, and increases risk of land degradation.	Rigorous assessments of BGBD enable improved evaluations of soil fertility and land degradation risks and opportunities.	Mostly achieved
Global Benefits	Inability to conduct global comparisons of the status and value of BGBD in relation to land use change results in exclusion of this component of agro-biodiversty from CBD discussions.	Universal rapid methods, including indicators and predictors available to GEF and elsewhere enable proper consideration of BGBD status and value.	Completely achieved
Outcome 2a) Inventory and evaluation of BGBD in benchmark sites representing a range of globally significant ecosystems and land uses. **Outcome 2b)** A global information exchange network for BGBD.			
Domestic Benefits	Incomplete information on linkage between land use change and BGBD impairs decisions on sustainable soil management.	Greatly improved knowledge base assists soil fertility and land management practices throughout the country	Achieved in most countries

	Baseline	Alternative	
Global Benefits	Lack of information and impaired information exchange on status of BGBD in globally significant biodiversity areas inhibits development of conservation strategies for agroecosystems.	Increased BGBD information available from areas of high global biodiversity significance. BGBD information accessible internationally and applicable to global biodiversity conservation planning.	Achieved Partly achieved
Outcome 3. Sustainable and replicable management practices for BGBD conservation identified and implemented in pilot demonstration sites in representative tropical landscapes in the seven countries.			
Domestic Benefits	Under-utilization of soil biota in land management practices results in unintentional loss of in-country biodiversity and utilization of sub- optimal practices for sustainable soil management.	Improved BGBD conservation, with sustainable land management, in demonstration sites.	Partly achieved (not in all sites)
Global Benefits	Present and future loss of both known and undescribed BGBD and diminished ecosystem services in globally significant biodiversity regions of seven countries.	BGBD conservation managed in selected landscapes in globally significant biodiversity areas and available for future global economic benefit	Partly achieved (not in all sites)
Outcome 4. Recommendations of alternative land use practices and an advisory support system for policies that will enhance the conservation of BGBD.			
Domestic Benefits	BGBD not considered in land use planning, resulting in sub-optimal land use and soil fertility management at national scale.	Increased information and enhanced capacity for effective land use decision- making. Potential for extension of sustainable land management practices.	Partly achieved (very few examples, not in all countries)
Global Benefits	Absence of recommendations for policy makers and other stakeholders to inform them of best practices for BGBD conservation.	Information on policy options for more effective interventions to conserve and manage BGBD globally available.	Achieved
Outcome 5. Improved capacity of all relevant institutions and stakeholders to implement conservation and management of BGBD in a sustainable and efficient manner.			
Domestic Benefits	Limited capacity to conduct BGBD assessments and effectively incorporate information in recommendations for improved land management practices.	National competence to conserve and manage BGBD developed to international standards.	Partly achieved (international standards are not established, so difficult to evaluate)
Global Benefits	Large disparity in capacity at national level hampers regional and global conservation and land management efforts.	Increased awareness of BGBD over a full range of stakeholders providing worldwide ability to respond to potential BGBD loss with best practices and policies.	Partly achieved (not so ambitiously, but there are few examples)

Annex 12.

List of the projects with activities catalyzed/replicated from CSM BGBD project

324. The CGIAR Commercial Products project (COMPRO) implemented by CIAT in 2009-2011 was based on the approaches developed by BGBD project and sought to evaluate and scale up new chemical and biological commercial products for improving and sustaining crop yields in selected agro-ecological zones in sub-Saharan Africa (Ethiopia, Kenya, Niger, Nigeria) . In 2012 IITA (International Institute of Tropical Agriculture) received approval of about US$7 million from the Bill & Melinda Gates Foundation for the implementation of the second phase of the Commercial Products (COMPROII) project proposed to transit technologies into Ghana, Tanzania, and Uganda.

325. The FAO-GEF 5-years project “Development of SFM and Support to REDD for Dryland Forests in Kenya” with total cost of more than USD 11 million

326. The “Biota East Africa” project - co-operation between German and African Institutions. It links a set of thematically and geographically strictly co-ordinated analyses of biodiversity change in the East African rain forests.

327. The KiLi project - a German Science Foundation funded research unit was approved in February 2010. The research unit comprises two central projects and seven subprojects from various disciplines. The duration of the KiLi project is three years for the initial phase with the potential for a three year follow-up phase. The KiLi project studies biodiversity and ecosystem processes on Mt. Kilimanjaro, Tanzania

328. The Africa Soil Information Service (AfSIS) project in sub-Saharan Africa funded by the Bill and Melinda Gates Foundation, with supplemental funding from AGRA, through a grant to the International Center for Tropical Agriculture (CIAT)

329. INOLEG project (“Avaliação da eficiência de inoculantes microbianos de leguminosas em regiõesin exploradas e de métodos para seu controle de qualidade e inspeção visando à expansão de seu uso naagricultura brasileira") on microbium inoculation in Brazil implemented in 2009-2011

330. Lancaster University projects: “Fire Project: The consequences of wildfires for tropical forest biodiversity”, “Human dimensions of wildfires: Linking research and environmental education to reduce Amazonian wildfires”

331. “Red in Café” project in Mexico*

332. FoMex projects*

333. Maize project in Mexico*

334. La Palma Comedores project in Mexico*

335. Agrobiodiversity project in Mexico *

336. Food nutrition project in Mexico *

337. Fly way project in Mexico *

338. Bio conjunction project in Mexico *

339. Tropical Soil Biology and Fertility-South Asian Network (TSBF-SARNET) in India*

340. 10-year project ‘Soil Rehabilitation in GMP through Conservation Tillage System’ in Indonesia*

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*These projects have been mentioned by national coordinators, but no specific relevant information were provided

Comments from the project management team and evaluator's response

Many thanks to the Project's team and EO for fruitful comments, which helped to make the final report stronger. Taking into consideration all notes, I also would like to remark that the report is mostly oriented on lessons learnt, advantages and disadvantages of the project to take them into account in design and implementation of further projects, and on sustainability and development of the project results, than on simple comparing of the project results with formal plans and commitments.

	Current description	**Project response**	**Evaluation Office (EO) response**	**Consultant's response to comments**
1	*[project identification table and para iv]*	Figures revised to include leveraged financing Not correct figure. Please refer to the ProDoc. Tranche II GEF amount is $4,007,124 This is not correct figure. As per provided co-financing reports total co-financing is $11,500,811 ($4,863,181 for Tranche I and $6,637,630 for Tranche II)	Consultant should double check the relevant documents and revise figures if need be but should provide the source of the final figures that he eventually uses. I recall discussions between consultant and project on these figures so I am surprised that there is still no consensus on figures. Get FMO to confirm final figures.	In accordance with EO recommendation the figures were double checked with the Project Financial manager and revised if agreed. It was realised that the main disparity was aroused by the initial information provided in TOR front page, where the Tranche I Co-financing excluded the leveraged figure, whereas the Tranche II included it. The relevant footnote was made in annex 1, and disparities were corrected throughout the text of the report. All figures, which still raise confusions (e.g. in para 41) are footnoted with reference to sources of data provided. Table in para 41 was changed with subdividing into 'planned' and 'actual' columns. Nevertheless, I deleted statements on that the project "went over" initial commitments of cofinancing, because there could be different considerations on how to explain figures from different sources (see also table in para 41)
2	*[para ix, page 10] Actually the project initiated activities are still continuing through data processing and uploading to data bases, books and papers under preparation, demonstration sites operational and supported to different extents from various sources*	This is an indication of sustainability of project results- countries continue to work on BGBD related issues after project completion.	Not all of these will be indicators of sustainability. Sustainability should show probability of continued long term project derived results/impacts after project funding has ended.	I agree with EO comment. This information was used to show that the project has follow-up actions, which sustain some of the project results
3	*[para x, page 10] … In particular, the global BGBD database and Web-site are not operational…*	The database was completed however due to reorganization of TSBF and some structural changes CIAT HQ has not integrated it in the CIAT portal so far. I would suggest this is clarified in the report and strong recommendation is made in this regard	It would help to clarify this as suggested by Task Manager (TM)	Agree. Relevant changes was made to the para x.
4	*[para xiv, page10] …interest of national governments to support project initiatives is low and occasional, as well*	-The project did not aim at development of relevant legislation, however it was anticipated that policy briefs will be made	Did consultant mean that interest of governments was still low despite the policy briefs being made available?	Although this was not formally planned by the project, the evaluation showed that active involvement of NGOs and private business, as well as national legislation and enforcement in some countries (e.g. in Kenya) provided big

	as support from strong international NGOs and businesses…	available to decision-makers to utilise soil biodiversity information in national and regional plans. -NGOs and business- This was not planned by the project	Involvement of NGOs and private sector can still be used to assess social-economic sustainability if they can be considered genuine stakeholders	support to the social-economic sustainability and further development of the project results. And this is considered to be a lesson for design of such projects in future.
5	*[para xv, page 10] The strengthening and support of the regional cooperation … seems to be the more effective growing point…*	Perhaps it could be elaborated further on this as a very positive example for South-South cooperation. The project organized several trainings where partners from different countries where trained in the countries where the highest capacity existed	Elaboration could be added in main report	This has been already reflected in paras 242-246 devoted to South-South cooperation. Small elaboration was done to para 243 as well.
6	*[para xvi, page 10] Project hosting mainly in universities and research institutes stimulated big success in science and provides sustainability of scientific and knowledge management results, but on the other hand, lack or late involvement of professional managers in the project decreased the project practicality*	The project was designed, approved and implemented as GEF targeted research project and in line with this perhaps the comments should be that when the targeted research project are designed, provisions should be made to assure that the results are mainstreamed into practice.	Project's comments a valid, consultant should please address.	Agree. This point was to underline that many of stakeholders at different levels noted that the project has less practical effects than actually could be, and this possibly decreased the project sustainability and overall results. In this case the Project's comment relates to the lesson learnt. Corresponding elaboration was made to the para xvi and 258
7	*[para xviii, page 10]… Concerning project practicality it can be noted that the project had a strategy on how to identify technologies, but not a strategy how to apply them…*	the project goal clearly states 'by demonstration of practices and methods'; the delivery and dissemination of technologies never has been objective of the project.	Consultant should rephrase this sentence if what he was trying to mean is that delivery and dissemination should also have been part of the project. Otherwise, comments from project are valid.	I disagree with the Project's comment. I consider the simple demonstration of practices and methods as useless if they are not applicable to the concrete conditions (including local markets, natural and economic resources, and environment). The practical delivery of methods and technologies and their acceptance by local consumers (mainly farmers) are the main criteria of the success of demonstration activities. In this case, the delivery and dissemination should be considered as an integral part of this goal. Nevertheless, I rephrased paras xviii and 270 in accordance with EO's recommendation.
8	*[para [xix, page 10]… While applying new technologies the issue of marketing and diversification of agriculture to avoid risks of production are crucial and should be taken into account …*	Similar comment – the marketing of what? This has never been part of the project	Same comment as above for para xviii	Same comment. Markets and incentives/needs assessment should be an integral part of dissemination/delivery strategies. Otherwise even the (scientifically) best practices and technologies can be useless for local stakeholders. For example, good technology on production of lilies bulbs in Mexico are almost no more sustained by local farmers except very few of them who found the market. But even they prefer to produce lilies for sale as flowers, not bulbs! Rephrasing was made in paras xix and 265
9	*[para xxii, page 10] …In addition to the strong M&E system proposed for the*	This statement needs to be justified. All partner countries used the M&E tools and Risks	This statement was elaborated on in para 233 giving the example of need for training in	In addition to the EO's comment I would like to note this statement is based also on interview during field mission when project stakeholders told

	project, national teams needed M&E guidelines and trainings…	assessment tools in the project implementation process. This was reflected in the annual reviews and adaptive management measures taken to mitigate the identified risks. An example is the change of project management structure for Tranche II	cost efficiency.	about their weak awareness with project M&E system. See also para 234
10	*[para xxvi, page 10] Sustainability: Catalytic effect of the project could be higher if it developed a strategy or framework for scaling up activities and outcomes*	This is a project with a research focus so what is meant with scaling up of activities – does this refer to research activities? … If the outcome is improved understanding and knowledge – how do you want to scale this out?	Consultant please clarify	It means what is said: there were no plans for scaling up project activities either in research work and knowledge dissemination or in practical applications. During field missions it was confirmed that if national teams thought about replications and catalytic effects as well as about sustainability of the project from the very beginning, they could do more in this direction. Unfortunately, to the opinion of national team members and mine as well, there was no replication strategy, but very occasional activities. From my point of view, based on the experience of the other projects, such kind of plan should be elaborated as a part of M&E plan during the first phase of the project and can include integral activities on cooperation with not only relevant stakeholders but with those partners who can sustain and develop the project results in future at different levels (for instance, business, NGOs, local and national governments, trade unions, local professional associations, etc) . In other words, it should not be only occasional, but planned and documented activities, based on the overall project strategy and ideas about follow-up actions. For this particular project such plan, for example, could address the idea reflected in the title of the project, which is "CONSERVATION AND SUSTAINABLE MANAGEMENT of BGBD", and not only scientific study of BGBD. It also could more address the project's components 4 and 5. In any case I do not want to say that nothing has been done in this relation (see section B2), but just to underline that it could be done in more effective way, and this is a recommendation for future projects
11	*[para xxvii, page 11] …Innovative biotechnologies and good land use practices are identified and tested in pilot demonstration project sites, but are not documented and…*	Project documented the good land used practices. The goal was to identify and make them available for further use. The project has operated a total of 132 farmer-level demonstrations plots divided over the various benchmark sites. In all countries farmers have actively participated in the demonstration and experimentation and have shown great interest. The focus of the project was however not on improving adoption rates directly and it is difficult to determine the	It appears that this evidence was not provided to the consultant. Consultant should please double check facts and if indeed these practices were documented, revise statement accordingly.	I agree with the Project's comment. Nevertheless, the issue is that not everywhere farmers are still actively use practices demonstrated by the project (see my comments in line 8). Moreover, there are very few examples of dissemination of these practices and technologies in other regions, e.g. in Mexico and Brazil. One of the reasons we realised during field study is that practices were documented only in scientific literature, and technologies are not fully available for potential users, even through Internet. The successful dissemination examples in Kenya were not directly initiated by the Project itself, but within the related activities of private companies. The paras xxvii and 286 were rephrased to make this statement more clear.

		impact of the project in this respect.		
12	*[para xxix, page 11] Data collected by the project should be integrated into existing international operational systems, … and forward/upload the project data for public access*	There are issues related to the intellectual property rights that have to be dealt with before such steps are taken. Partner countries were very sensitive on making all data publically available before formally published	Consultant should highlight both these issues	Agree. Changes were made to paras xxix and 288
13	*[para xxxi, page 11] Many of the project reports, in particular prepared at the national level … especially those prepared close to the project closure are not available…*	Based on the reports and outputs received at the project completion all produced reports and publications were provided. I provided detailed list. It was expected that TSBF will make them available to Evaluator for review up on request.	It appears that this evidence was not provided to the consultant. The consultant should however please explain his statement further as I recall seeing the detailed list emailed to you by the TM	This statement is mainly concerned with availability of information in open sources, such as Internet, and not only in summaries of scientific reports, which are also not available in open access as well as the detailed list of them. Some of the results are definitely not available, although they are quite interesting for dissemination of the project results (e.g. draft report mentioned in footnote 17). Nevertheless, I deleted this para from the report as well as para 291 as not of big importance in order to avoid possible contradictions
14	*[para56, page 18] …All these 63 indicators related to the project activities were never used for reporting in annual PIRs, but only a few of them related to the progress of the project outcomes…*	This is not a correct statement. The indicators as defined in the Tranche II logframe were used in the PIR reports for monitoring of project implementation. There are two sections in the PIR report that make an overall assessment of **3.1 Progress towards achieving the project objective**- assessing the indicators at objective/outcome level and Assessment of the **3.2. Project implementation progress** Assessing the achievements of indicators defined at activity level It should be also noted that PIR report formats applied at the beginning of Tranche I were slightly different but this was outside the control of the project.	Did the evaluator mean to say "… not all the 63 indicators were used for reporting in the annual PIRs however, some were used in the reporting…"? Consultant's comment gives the impression that none of the 63 indicators were used. Please rephrase and clarify. Did the TM mean that all 63 indicators were used in the PIRs or some of them? Consultant should visit the two sections in the PIRs and rephrase.	Probably the statement was gotten wrong by the Project TM. Actually there are no contradictions in this statement between evaluator and TM, which is correctly understood by EO. Section 3.1. in PIR used only those performance indicators from the Logical Framework Matrix related to the project's objective, purpose (immediate objective), and outcomes levels (20 indicators of the total number of 63). For section 3.2. PIR did not use the formulation of performance indicators suggested in the logframe, but the formulation of the project activities. Thereby I concluded that the level of performance indicators related to indicate achievements of activities in details was never used in the project. So, the full set of indicators was not operational. To clarify the statement I made changes in para 56. Moreover, to my mind the set of 63 indicators is hard to trace throughout such a complex project, and I consider this number as redundant (see para 277).
15	*[para page]… but failed to a certain extent in cases of internet-based information system and database demonstration of ecosystem services…*	See my comment on this above. The database was established and was functional at project completion. However TSBF failed to make the arrangements to integrate it in CIAT when TSBF was re-structured. The strong recommendation should be made in this regard.	EO agrees that clarification should be made about the database, clarifying that failure was not on the project side.	The reference is made to paras 67-68 with more explanation
16	*[para 57, page 18]… achievements of the project outcomes and activities can be followed via annual*	WE do have the quite elaborate annual project reports that report on the progress. MS: Correct- In addition the Evaluator	Evaluator should confirm these annual reports and amend relevant text accordingly.	The para 57 was corrected in accordance with EO's recommendations

	PIRs and national reports and…	should review PIR reports. UNEP format of technical reports did not track information on indicators. No individual national reports were required but on eproject Annual and 2 q reports at global level		
17	*[para 61, page 18] Unfortunately, the research and results on the study of economic valuation of BGBD at the global level were poor in the project despite of some interesting results gained in India and Mexico*	See also Indonesia and the various reports of the working group – the last workshop of the project was on economic evaluation and there is a report available that show the progress made on the conceptualization of economic valuation of BGBD. It would be appreciated if the evaluator would acknowledge the complexity of this specific topic and could value the progress made in thinking, even though the project has not been able to actually value BGBD (nobody has so far been able to do that) MS: In addition it was never planned that all countries will achived all project objectives. This is a multi-country global project where each country contributes at different level to the achievemnet of project objectives with different outputs	Evaluator should look into results for Indonesia and mention the workshop on economic valuation and then revise conclusions after taking these into account. EO also believes that it would be worthwhile for the consultant to acknowledge the complexity of this particular attempt/task of valuing BGBD.	The statement was revised for more positive perception. Nevertheless, I would like to point that the project did not apply results of economic studies upon the project sites/plots, which decrease the possible effects demonstrating economic benefits derived from management of BGBD and also possible replication and sustainability of related project results
18	*[para 58, page 18] … lack of standardized methods for BGBD study …it took more time and work than had been anticipated, and no planned formal agreement was adopted on this, but informally the manual developed and published in English, Spanish and Portuguese… can be considered as a basic guideline*	Why informally? The manual was formally agreed and peer reviewed by the TAC	Consultant should clarify what he meant by "informally" or otherwise correct the statement based on comments provided by project	The query was sent (17 June 2013) to the Project Task Manager to clarify the issue: "Please, can you clarify your note to the para 58 of the draft evaluation report where you pointed that "The manual was formally agreed". Does it mean that "Agreement on standard methods for inventory of BGBD across the partner countries" (as it was stated in the logframe) has been reached? I never saw any documented confirmation on that although asked about this several times in different countries. As I understood, it was informally accepted by scientific community, but nevertheless different scientific schools still use their own simplified approaches (especially if necessary equipment is not available). So, my understanding is that this "Handbook" did not become a standard, but an approximation to standardization in the relevant area, even if it has been approved and peer reviewed by TAC. And this is also a big project achievement, because nothing relevant has been done before" After clarification by TM the statement was slightly corrected to make it consistent
19	*[para 67, page 19]… the project web-site is poor, and the links*	Maybe the evaluator could elaborate on the factors that play a role.	EO concurs with project comments	Disagree. The project's web-site could serve as an operational international hub on BGBD issues and add value to

	to the national web-sites have not been updated since the project completion…	Like institutional commitment – as research organization(s) the interest is in publications and the knowledge bits – service provision in terms of data management and maintaining WEB sites etc. have not been a strong point in general. So question is who could be the steward of this data and information…		the sustainability of the project results, but it did not happen. This was a reason to underline this issue in the report, especially taking into account the growing importance of different international web-hubs in the knowledge and information exchange. If TSBF considered its positions in data management and supporting Web-site as weak, it should be a manager's headache how to fulfil these commitments, for example, through making agreement with other responsible organization, which could support the item (there are a number of them working at international or national level, for example, GSBI or University of Nairobi, or others). But during evaluation I even did not see any attempts to do this, sorry... It's a pity only that during the project timeframe the risks for the sustainability of the project web-site was not realised. But for justice sake, to my experience, it is a very common fault of many international project like this when the great information and knowledge "goes to the far shelf" after the project completion, and a number of other projects working in the same field are "reinventing the wheel" instead of going forward. The footnote was also added to this statement after new information received from the Project Global coordinator after drafting the report
20	*[para 72, page 19] Besides demonstration, quite a number of experiments were also carried out to investigate the effect of management options on the soil biota and soil quality… These experiments gave perspicuity in the possible workings of these different management options rather than promoting these options and expecting that these will be accepted by farmers directly…*	'Demonstration' was the objective and the project realized that large scale adoption was not a realistic option. The focus of the project has not been on technology development – and technologies are also not available apart from inoculant technology and we have contributed to that.	'Demonstration' to the farmers with the hope adoption we believe? In which case the methods demonstrated would be of no use unless they were "sold" or "promoted" or "marketed" to the farmers. I believe this is what the consultant meant. However since 'promotion' was not part of the project, then the need for promoting the methods on the demo sites, for adoption, could be stated as a recommendation.	This para underlines that in addition to the "demonstration" activities the project succeeded also in the soil biota management (remember the title of the project: Conservation and sustainable MANAGEMENT of BGBD). From the other side, I never separate 'demonstration' from 'promotion' while discussing agrotechnologies. They are "two sides of the coin", and the project included promotion activities as well if to look attentively through its logframe. Nevertheless, the relevant recommendation has been already included (see para 286)
21	*[para 74, page 19]* … in some countries, even successful experiments have not led to the adoption and wide replication of these technologies by farmers. For example, in Brazil the project mainly has concentrated activities on studies and scientific experiments than on practical applications	There are good reasons for that. BGBD technologies will not provide an answer to the problems farmer are facing in this shifting cultivation system	The consultant's observation and comments are valid but the reasons for lack of adoption should be explained.	The reason was explained in next para #75
22	*[para 83, page 21]… In Brazil there were also start up activities on PES , which*	This was not initially planned but during the project implementation the opportunities were	Perhaps the consultant could highlight this, just for clarity.	Agree with EO's comment. This (as well as many others) was to highlight the project success beyond formal plans.

	results are intended in the near future …	identified and further explored.		
23	*[para 96, page 22] However, it is not easy to assess the effectiveness of this comprehensive and complicated project even by following the project logframe. As it has been noted in Part 1 (section "Objectives), the project has slightly different formulations of its overall objective, development objective (goal) and intermediate objective (purpose). In the final technical report, activities were mixed with outputs (performance indicators) and formally did not correspond to all project indicators, neither were there any formal links traced between activities/outputs and results/outcomes in this document*	The Project development, immediate goal are clearly stated in the logframe and PIR reports. There is a much broader description of the goals in the body text of the project document however the logframe has been used as per GEF requirements and standard practice as project design and monitoring tool. The format of standard UNEP technical reports does not provide a framework to report on the level of achievements of project objectives and delivery of project outputs. It is rather a comprehensive synthesis of projects results. The annual PIR are used as main monitoring tools to provide an overview of the progress and performance towards project objectives and outputs. It was pointed out to the evaluator that these report should be used when assessing the project performance at two levels: Progress towards achieving the project objectives and Implementation progress – delivery of the planned outputs	Indeed there are different formulations of the different objectives [dev't objective (goal), purpose and project main objective] which could get confusing, however effectiveness can still be measured, and was measured. The consultant's comments were just a valid observation that might warrant a recommendation for clarity and consistency in stating objectives in future projects. Re: technical report, again, the PIRS were indeed used for evaluating effectiveness but the consultant was mentioning a weakness in style/quality of the tech reports which also had to be analysed by consultant as part of the evaluation. Perhaps the consultant could make this clearer.	I agree with EO's comment. The idea of this para was to brief that the project effectiveness could not be formally measured through only performance indicators presented in logframe and PIRs (in particular if not all of them were used in PIRs – see my comment in line 14), but should take into account the complex of information, including indirect project results, catalytic effects and follow-up actions, which are more visible after more than 2 years of the project completion. I did not want to point on the weakness of technical reports, but would like to note that the system of performance indicators suggested in the project logframe was redundant and in this case not useful for the project purposes. Probably it should be formally revised in accordance with requirements of standard UNEP technical reports, but it was not done in due time, so it confused me from the very beginning and provided difficulties in understanding of the actual and formal system of the project M&E.
24	*[para 97,page 22] at least one third of the project outputs can be considered as not reached the intended target, especially if to assess partner countries from a uniform base*	As already stated above this is a global multi-country project and it has to be evaluated as one project not to evaluated each country independently	EO concurs with the project's comments.	The project was evaluated as a holistic one, but I also tried to realise the peculiarities of countries involved because stakeholders there differ in their needs and incentives. See also clarification on this in paras 98 and 99. Nevertheless, arguing with the Project's comment, I would like to pay attention of the project team that the national logframes with performance indicators prepared for the second phase look like copies from the overall project logframe and national peculiarities were weakly considered there. This allowed me to make statements in paras 97 and 99
25	*[para 99, page 22]… the national teams continued to implement their country programmes based on their own country needs, keeping the overall project course…*	Nothing wrong with this approach	From the paragraph in question, I believe the project, consultant and EO all agree that there is nothing wrong with this approach	Agree with EO's comment
26	*[para 100, page 22] project's successful results and approaches in different countries,*	As indicated above it is not expected the evaluate each country independently	Concur with project's comment	See my comment in line 24. Also I see no contradictions between statement in para 100 and Project's comment. Yes, it was sometimes hard to compare results achieved in different countries,

	which sometimes are even hard to compare.			and that's it! That was a reason to evaluate achievements in different countries to draw the whole picture of the project as a holistic and integral thing. To underline what Project team wants to stress the relevant change was made in para 108: ... the achievements in individual partner countries were different and added value to the whole project success.
27	*[para 108, page23] …despite of the overall global success … in various anticipated outcomes and outputs, the achievements in individual partner countries were different*	This is not a negative result or weakness	Concur with project's comment. Differences in achievement in the different countries would have been expected anyway	Agree. The format of evaluation report allows including not only negative results. This was underlined also in this paragraph below: ... although it is a comparative list, it does not mean that any country was better or worse in the unofficial competition of the project results"
28	*[para 151, page 29] The project has not engaged in negotiations on alternative land use scenarios and strategies for conservation of BGBD*	This was not part of approved intervention strategy approved by GEF Council. As targeted research project, this project was supposed only to provide recommendations that support BGBD conservation and to make them available for land-use policy decision makers in the partner countries	Consultant should consider revising the statement	I would like to refer to the output 4.2. and problems of its delivering as it was formulated in the final PIR: "Alternative strategies for BGBD conservation and sustainable land-use management negotiated", which was used for the statement in this paragraph. Nevertheless, the statement was also revised to make it less confusing
29	*[para159, page 30] …overall project sustainability as moderately unlikely (MU)…*	This to be confirmed by EO. Based on my understanding of GEF EO definitions and the ratings given by the evaluator the rating on sustainability should be ML	According to the GEF Office of Evaluation, all the dimensions of sustainability are deemed critical. Therefore, the overall rating for sustainability can not be higher than the lowest rating on any of the separate dimensions. Since "Socio-political sustainability" was rated MU, the overall score for sustainability cannot be higher than MU.	That is really so, although my heart is boiling to rise the overall rating of the project sustainability indeed.
30	*[para169, page 31] …and there was a lack of baseline assessment relevant to the project performance indicators.*	I do want to comment that all countries produced a 'BGBD review' giving the status of knowledge and information in each of the countries. These were intended as output of the PDF-B phase. Even though the publication of some of these reviews were delayed they nevertheless provided an important baseline. All reviewed were published either as books or special issues of international journals	Consultant should take this into consideration and revise statement.	To my mind there are no contradictions between the statement and the project's comment. This statement was based on the stepwise analysis of Table 3 in Annex M of the Tranche 2 Project Document and the Section "Baseline" at pages 64-65, and underlines some unconformity of the baseline studies with the full set of project performance indicators and also some confusion with the results of baseline assessment. For example, I cannot agree that "Conceptual framework for BGBD conservation not available at commencement" of the project. In this case the project could not appear. I also cannot agree that "Farmers do not use BGBD conservation BGBD practices at the moment" of the beginning of the Tranche 2. For Activity 1.3 ""Methods for evaluating the economic (and livelihood) benefits of BGBD for stakeholders (at local, national and

				global scales) the base line was stated as “Few methods were available at beginning of project to link BGBD with economic value indicators for maximum utilization”. Did it mean that these methods were inconsistent of the set of methods was invalid or smth else? The performance indicator for this was “Valuation manual written and made available globally”, but it was not done, because it is impossible to create globally acceptable manual for such a purpose in countries with different economics and BGBD. I also can give other examples if necessary. This means that the baseline even if it was identified properly, than the performance indicators sometimes were inadequate and a bit ambitious. Certainly it does not concern all of the project activities, but there are some, which made the evaluation confusing with correspondence of intentions and results gained to the project end. Nevertheless, to make the statement more clear it was revised and extended
31	*[para171,page 31]… , the top-down style did not provide much opportunity to national teams to influence project strategy and affect correcting project plans …*	I do not agree. The top-down was instrumental in the first tranche of the project where the focus was on the application of standard methods for inventory of BGBD. In the second tranche this was considerably relaxed to allow countries to address peculiarities in the various countries that increased the relevance of the work the project was doing. MS: I support Jeroen’’s opinion the project was managed in a highly participatory manned to top-down approach was applied. In addition the EA continuously consulted with TAC members	Consultant will revisit the facts and use more evidence to defend his statement or amend statement according to the project’s comments if the evidence to support it exists.	The facts were collected during the field evaluation from the members of the project teams (see one of the examples cited below). It was not a reproof to the central project management stuff, but a desire to make the project better and to be more involved in the overall project strategy. The main perception from these discussions was that local teams sometimes felt themselves as technical executors of the project but they would like to take part in updating of the project design and plans in accordance with national and local peculiarities. To moderate the statement it was revised by evaluator. An example to justify saying abobe (cited from one of the national team members): “Frankly, belowground biodiversity is still an abstract idea for many both non- and technical people hence the relevance is very obscure. Consequently, the global Project targets seemed far fetched to many. For example, the Local Council Chairperson, at one of the meetings wondered how he would support the conservation of termites which damage his farmers’ crops! Therefore, the Project and future scientists still face that challenge. Global targets are academic while local people want solutions for increased agricultural production”
32	*[para 175, page 32] Although there was no specific adaptive management strategy in the project, all necessary current corrections in the project management were made “on the job”*	Adaptive measures were applied in the management arrangements for Tranche II. See details above in my comments	Consultant should verify which adaptive measures the project refers to and address this contradiction	There is no contradiction. I did want to say here that there were no specific AM strategy as a document or special operational manual or regulations for this, as it sometimes one can see in the documentation of the other projects. In this particular project it was not needed. A slight revision was made to the statement to clarify this
33	*[para 210, page 35]* No financial provision	Audit reports were submitted on an annual	Consultant should beef up this section of the	Agree. Done.

	was made in the budget for audits	basis by the EA. Cost were covered by co-financing to GEF funds were used	report and also reflect the project's factual comments	
34	*[para212, page 35] …not all project partners fulfilled commitments. For example, Indonesia, Uganda, CIAT and others did not fully carry out their financial obligations , but Brazil, India, Kenya exceeded their initial pledges*	Not correct. Not all initial co-fin was provided but countries except Indonesia mobilized additional co-fin form new sources	It appears that both the consultant and the project are saying the same thing i.e. that not all co-fin was realised but some countries mobilised additional funds. Consultant could probably rephrase for clarity.	Agree with EO's comment. The statement is rephrased.
35	*[para 228, page 36] There was a zero funding in the M&E line in of the project budget allocated specifically for ongoing monitoring, reviewing of assumptions and results for adaptive management. Nevertheless in the project, M&E was addressed informally through project management activities. The final PIR also indicated that the project had budgeted for M&E activities indirectly*	This is an old project and M&E cost was covered by IA fee. In addition at the lasts stages of the project some savings of $9,922 were used for monitoring activities	After taking into consideration the factual comments provided by the project, consultant should revise the rating to 'Satisfactory'.	Agree after new information provided by TM. Done.
36	*[para 235 , page 37]… the basically good M&E system was not sustainable, it did not create capacities to ensure that the project monitoring data (except data at national levels and/or scientific data) will continue to be collected and used after project closure*	The evaluator is talking about different M&E system here not project m&e system. It should be clarified what M&E system was taken into consideration for defining the rating	Consultant should please clarify	I would like to refer to the para 25 of the "Guidelines for GEF Agencies in Conducting Terminal Evaluations": "**M&E plan implementation.** A terminal evaluation should verify that an M&E system was in place and facilitated timely tracking of progress toward project objectives by collecting information on chosen indicators continually throughout the project implementation period…; … and projects had an M&E system in place with proper training for parties responsible for M&E activities *to ensure that data will continue to be collected and used after project closure*." (italics by GK). Thus, I am talking about the same project M&E system, which had to include the latter task also.
37	*[para237 , page 37] In view of the above, the overall rating of the project M&E is moderately satisfactory (MS)*	Analysis provided above do not justify MS rating???	According to the GEF Office of Evaluation, the overall rating for M&E will depend on and cannot be higher than the rating given to M&E plan implementation. Consultant should give the appropriate rating to M&E plan implementation and then determine the overall rating.	Agree with EO's comment. The rating for M&E plan implementation is given as MS.
38	*[Table 2, page 38]… it is striking that BGBD is not mentioned explicitly in any of the policies formulated.*	I do not agree – the issue here is that BGBD does not lend itself very well for policy formulation mainly because of the lack of	The consultant should consider both project comments and amend paragraph. Consultant should make clear if dissemination efforts of	There is no contradiction. I meant that the policy analysis made *within the project* showed that. The statement was changed to clarify the issue. By the way, for the information of the

	Conclusion is that there is a lack of data and information on BGBD, tools and techniques for inventory and monitoring, as well as lack of dissemination efforts.	indicators and because it is difficult to define concrete target for the conservation and management of BGBD. **MS**: Also it was not expected from the project to formulate any BGBD policies but to raise the awareness of the policy makers on BGBD. This has been achieved and there are justifications for this as part of delivered outputs.	BGBD info led to raised awareness.	project team, the initial formulation of this statement, which you did not agree with, was taken almost without changes from the final PIR (table 3.2., line 4.1., column 4). So, I did not contrive anything here myself.
39	*[table 3 , page 40] Capacity Building: …to different extent in different countries: from moderately unlikely to successful. The more successful was scientific capacities improvement*	I would argue that the capacity for conservation and management starts with gathering data and information on the status of BGBD and improved understanding of BGBD in provision of ecosystem services …Not to mention training of students who all found their way in for example Dudutech. So there have been very practical achievement – So successful at the least	Evidence presented on capacity building throughout the report points to a "satisfactory" rating, implying "successful". Consultant should either provide evidence to justify the "MU" statement or amend the statement to reflect the success in achieving this outcome.	I agree here with the EO's comment, that the overall impression of this is "satisfactory", especially if to take into account limited project resourses. I also fully understand the wish of the project team to rise up the rating here, because a lot has been done in the project in accordance with Component 5 and correspondant performance indicators. But I would like to notice that in general the "*implementing conservation management of BGBD in a sustainable and efficient manner*" is not the function of only scientific and knowledge success although the project was mainly targeted on these purposes. If to assess the project formally from the point of its basic targets, the result should be considered as successful and even highly successful in some countries (see para 108 of the report). But if to do this from the holistic point of view taking into account also possible indirect results, e.g. in encouraging national and local policy and decision makers, business, extension service, in replication and follow-up activities, which in turn promote the sustainability of the project results, than I cannot put high rates (see also my comment to line 27). So, I am confusing with this multi-side assessment, and cannot make the overall rating and unique answer to this comprehensive question. Necessary clarifications were done in the statement.
40	*[Table 4 , page 41] Overall rating for Attainment of project objectives and results- **S***	If two out of the three is rated HS why not the overall rating is HS?	Relevance and Effectiveness are considered as critical criteria meaning that the overall rating for 'Attainment of project objectives and results' may not be higher than the lowest rating on the separate dimensions (in this case, cannot be higher than the "S" rating for Effectiveness"	Agree with EO's comment
41	*[Table 4, Page 41] Overall rating for Sustainability of project outcomes= MU*	Only one category out of 4 is rated MU, why overall rating is MU?	According to GEF Office of Evaluation, all the dimensions of sustainability are deemed critical. Therefore the overall rating for sustainability will not be higher than the lowest rating of the separate dimensions.	Agree with EO's comment