



PROJECT IDENTIFICATION FORM (PIF)

PROJECT TYPE: FULL SIZED PROJECT

TYPE OF TRUST FUND: GEF TRUST FUND

PART I: PROJECT INFORMATION

Project Title:	Mainstreaming Incentives for Biodiversity Conservation in the Climate Resilient Green Economy Strategy (CRGE).		
Country(ies):	Ethiopia	GEF Project ID:¹	5440
GEF Agency(ies):	UNDP	GEF Agency Project ID:	4644
Other Executing Partner(s):	The Environmental Protection Authority; The Environmental Protection Bureaus of the Oromia, Harari, Somali; Southern Nations, Nationalities and Peoples Regional State; Dilla University, Wollega University and Arba Minch University	Submission Date:	August 8, 2013
GEF Focal Area (s):	Biodiversity	Project Duration (Months)	48 months
Name of parent program (if applicable): <ul style="list-style-type: none"> • For SFM/REDD+ <input type="checkbox"/> • For SGP <input type="checkbox"/> 	N/A	Agency Fee (\$):	315,063.2

A. INDICATIVE FOCAL AREA STRATEGY FRAMEWORK²

Focal Area Objectives	Trust Fund	Indicative Grant Amount (\$)	Indicative Co-financing (\$)
Biodiversity (BD-2)	GEF TF	3,316,454.69	16,000,000
Total Project Cost		3,316,454.69	16,000,000

B. INDICATIVE PROJECT DESCRIPTION SUMMARY

Project Objective	The Biodiversity of Ethiopia is protected from current and future threats by ensuring development and investment decisions do not impact negatively on biodiversity					
Project Component	Grant Type ³	Expected Outcomes	Expected Outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative Co-financing (\$)
Strengthening the Enabling framework for mainstreaming incentives for biodiversity conservation into the CRGE at national level	TA	Enhanced conservation security for the following threatened species (baseline to be determined during PPG): <i>Plain zebra (Equus grevyi Equidae)-high risk</i> <i>African wild dog (Lycaon pictus)-high risk</i> <i>Mountain Nyala (Tragelaphus buxtoni)- high risk</i> <i>Cheetah (Acinonyx jubatus) – Vulnerable</i> <i>Lion (Panthera leo) - Vulnerable</i> <i>East African cedar (Juniperus procera)- critically endangered</i> <i>Arabica Coffee (Coffea Arabica) – high risk</i> A comprehensive CRGE that recognises conservation and sustainable use of biodiversity as a major contributor to its	Decision support tools to ensure infrastructure placement and other investments do not negatively impact on biodiversity are in place and under implementation. <i>Tools include GIS mapping of critical biodiversity areas, identification of no go areas using a biodiversity scorecard, a check list that incorporates the mitigation hierarchy to avoid-mitigate-offset impacts on biodiversity etc.</i> Biodiversity values and management costs mainstreamed into national accounts through a public expenditure review – ensuring no financing for investments that result in negative impacts on	GEF TF	1,018,534.59	4,491,645

¹ Project ID will be assigned by GEFSEC

² Refer to the reference attached on the [Focal Area Results Framework and LDCF/SCCF Framework](#) when completing table A

³ TA includes capacity building, and research and development

		<p>goal of increasing GDP; and delivers a coherent response to biodiversity loss, and climate change.</p> <p>Better cooperation and interaction of institutions involved in managing the response to biodiversity loss and climate change</p>	<p>biodiversity.</p> <p>Requisite staff capacitated and well positioned to use the tools and the results from PER, and other relevant studies regularly in their decision-making</p>			
Piloting/Testing of Payments for Biodiversity conservation in selected sites	TA	<p>At least 20,000 hectares of the highly threatened afro-montane forests are under improved stewardship by community land managers, reducing pressure on biodiversity, indicated by no net loss of habitat in BD sensitive areas (from clearance for agriculture);</p> <p>Land use changes under PES, result in increased forest cover, reduced habitat loss and habitat degradation by 35% (<i>Baseline to be confirmed during PPG</i>)</p> <p>Institutional capacity of national and provincial governments (<i>woredas</i>) is emplaced to coordinate PES programmes, allowing for the systematic scale up of PES across the Afromontane forests (covering at least 250,000 hectares)</p> <p>Increased government investment in pro-conservation PES in the afro-montane forests by EOP.</p>	<p><i>Metrics for determining the payments designed:</i> Ecosystem services in the selected sites are defined, measured and assessed; amount of payment is determined</p> <p>Prospective sellers to supply ecosystem services identified; and their capacity to modify land use practices is enhanced through technical assistance / extension on biodiversity friendly land use practices</p> <p>PES agreements are brokered between sellers and Government specifying conditions for payments (Value of service; mode of payment; delivery of service) agreed upon by Government and sellers and operationalised through contracts</p> <p>Institutions in place to manage the PES scheme – such as negotiation, contracting, transaction, verification,</p> <p>Monitoring and verification system measures the impact of intervention (PES) on land use changes (actual delivery of ecosystem services), biodiversity and livelihoods in the target sites using standards and indicators derived from baseline information.</p>	GEF TF	2,139,993.69	10,746,450
Subtotal					3,158,528.28	15,238,095
Project Management Cost (PMC) ⁴				GEF	157,926.41	761,905
Total Project Cost					3,316,454.69	16,000,000

⁴ To be calculated as percent of subtotal

C. INDICATIVE CO-FINANCING FOR THE PROJECT BY SOURCE AND BY NAME IF AVAILABLE, (\$)

Sources of Co financing	Name of Co financier	Type of Co financing	Amount (\$)
Government	CRGE Facility, National and Regional Budgets	Grant	15,800,000
GEF Agency	UNDP	Grant	200,000
Total Cofinancing			16,000,000

D. INDICATIVE TRUST FUND RESOURCES (\$) REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY

GEF Agency	Type of Trust Fund	Focal Area	Country Name	Grant Amount (\$) (a)	Agency Fee (\$) (b) ²	Total (\$) c=a+b
UNDP	GEF TF	Biodiversity	Ethiopia	3,316,454.69	315,063.2	3,631,517.89
Total Grant Resources				3,316,454.69	315,063.2	3,631,517.89

E. PROJECT PREPARATION GRANT (PPG)

	<u>Amount Requested (\$)</u>	<u>Agency Fee for PPG (\$)</u>
• (upto)\$100k for projects up to & including \$3 million	89,938	8,544.11
•		

PPG AMOUNT REQUESTED BY AGENCY(IES), FOCAL AREA(S) AND COUNTRY(IES) FOR MFA AND/OR MTF PROJECT ONLY

Trust Fund	GEF Agency	Focal Area	Country Name/ Global	(in \$)		
				PPG (a)	Agency Fee (b)	Total c = a + b
GEF TF	UNDP	Biodiversity	Ethiopia	89,938	8,544.11	98,482.11
Total PPG Amount				89,938	8,544.11	98,482.11

PART II: PROJECT JUSTIFICATION

A. Project Overview

Ethiopia's economy is one of the fastest growing in Africa. GDP growth rate was over 10% between 2001 and 2010 with urban areas contributing 62% of the GDP growth, and the service and industry sectors together forming a major part of Ethiopia's GDP over the same period. The Economist Intelligence Unit⁵ forecasts that real GDP growth will average 7.2% annually between 2013 and 2017 as the dominant agriculture sector performs well, electricity supply improves and export demand picks up.

Agriculture accounts for nearly 50 percent of GDP, 90 percent of export revenue, and is a source of livelihood for more than 85 percent of the country's 80 million people. More than 11 million smallholders engage in cereal production, which totaled 18 million tons in 2011/12. More than 70% of cropland is devoted to cereal production, that area having expanded by 27% from 7.0 million hectares in 2003/04 to 9.6 million in 2011/12. Livestock contributes 16% of GDP and generate 14 % of the country's foreign exchange earnings. With approximately 50 million cattle, livestock provides income for farming communities and a principal means of household saving. Livestock also confer a certain degree of security in times of crop failure, as they are a 'near-cash' capital stock. Furthermore, livestock provides farmyard manure to improve soil fertility and is also used as a source of energy.

*The Government of Ethiopia aims to achieve middle-income status (MIC) by 2025. The Growth and Transformation Plan (GTP) identified two main priorities for reaching the MIC goal, the first being boosting agricultural productivity; and the second is strengthening the industrial base – particularly where this can be built on Ethiopia's huge hydroelectric power (HEP) potential, and fostering export growth – which includes export of HEP. The Government, however, recognizes that a conventional development path to MIC status could result in unsustainable GHG emissions and over-exploitation of biodiversity and ecosystems. Under a business-as-usual scenario, GHG emissions are expected to grow more than double from 150 Mt CO₂e today to 400 Mt CO₂e in 2030. On a per capita basis, emissions would increase by more than 50% to 3.0 t CO₂e, exceeding a global guideline of 1t and 2t per capita to limit the negative effects of climate change. Business-as-usual could also be financially challenging, with a significant share of GDP being spent on fuel imports, putting pressure on foreign currency reserves. It could also result in unsustainable use of biodiversity and ecosystems, in being locked into outdated technologies, and in losing an ever-increasing share of GDP to fuel imports⁶. A new strategy is, therefore, required if the needed growth is not to be accompanied by – and ultimately undermined by – biodiversity loss and high costs of environmental damage. As a result, the Government has developed a Green Growth Strategy with the main policy driver as *The Climate Resilient Growth Strategy (CRGE)*.*

The Climate Resilient Growth Strategy (CRGE)

⁵ The Economist Intelligence Unit Country Report; 1st Quarter 2013; www.eiu.com

⁶ "Making Growth Green and Inclusive: The Case of Ethiopia" by the Government of Ethiopia and the OECD (2013)

The CRGE aims to increase economic growth, while at the same time reducing greenhouse gas (GHG) emissions and increasing climate resilience. The main goal is to increase per-person GDP by 475%, from US\$ 380 to more than US\$ 1,800 GDP per capita by 2030, while at the same time decreasing GHG emissions on a per capita basis by 35% from 1.8 t to 1.1t CO₂e. The CRGE has three complementary objectives: (i) Fostering economic development and growth (ii) Ensuring abatement and avoidance of future GHG emissions (iii) Improving resilience to climate change. In order to achieve this, the CRGE is employing three broad tactics (1) Tapping into international climate finance – which requires an emphasis on demonstrable GHG abatement; (2) Seizing opportunities for innovation based on the latest production platforms – “leapfrogging” to the newest and best technology rather than reproducing each evolutionary stage undergone by already-developed economies; (3) Creating competitive advantage out of a focus on sustainable use of biodiversity and ecosystems and improving their productivity – although this last strategy is less well developed as yet.

A CRGE Funding Facility has been created. The facility, managed by the Ministry of Finance, will centralise the various sources of finance for implementing priority projects. Financial requirements for the CRGE’s plans are estimated at \$150 billion over the next twenty years. \$80 billion would be capital investment and \$70 billion operating and programme costs. Much investment will be required in green infrastructure (10% growth rates will require 14% annual additions in hydroelectric power). Over the next five years alone, the CRGE suggests that 27.5% of GDP will need to be invested. Where average domestic savings are only 11.9% and half the investment burden is foreign exchange-denominated, Ethiopia’s green plans will inevitably rely on attracting international climate finance and other foreign investment.⁷

Donors have pledged support for the CRGE. Norway has committed US\$60 million per annum for 5 years for direct support through the CRGE Facility. Most of this is to support CRGE energy and forestry initiatives. It will predominantly be result-based financing, with some upfront grants for enabling activities such as MRV, and capacity building to the sectors (particularly Ministry of Agriculture, EPA and the Ministry of Water Resources. The United Kingdom/ DFID’s Strategic Climate Institutions Programme (SCIP) is intended to fill the investment gap that may be created before the CRGE Facility becomes fully operational. It will finance programmes that are found to be strategic and with transformational impact. The SCIP has already channeled resources to three projects (standardizing Ethiopia’s Grid Emission Factor; supporting grass roots communities in local adaptation programmes; and Ethiopia’s negotiations support programme). It is now attracting interest from other donors including Norway and Denmark. DFID’s *Climate high-level investment programme (CHIP)* aims to channel UK climate finance to investment opportunities in Ethiopia. It will channel finance at the national level (through the CRGE Facility), and sector level (direct financing through ongoing programmes such as the Productive Safety Net Programme], disaster risk management, forestry etc.). Sweden/SIDA and the Swedish Energy Agency have financed a project to explore the potential of projects for carbon financing. Last but not least, the World Bank has established the Climate Innovation Centre to support private sector-led innovation under the CRGE. The CIC has completed its design phase and is now becoming institutionalized.

Ethiopia’s Biodiversity and Importance

From the depressions in the *Afar* (115 m below sea level) to the mountains of *Ras Dashen* in the north and the *Bale* in the southeast (rising to about 4533 meters), *Ethiopia is endowed with rich biodiversity that spans a remarkable number of the world’s broad ecological regions.* The Simien and Bale Mountains are important areas of plant endemism with diverse flora, and the afro-montane representative show affinities to South African, Eurasian and Himalayan elements. The Southwestern broad-leaved evergreen forests show affinities to the Congolian forests of western Africa. Furthermore, numerous crop plants that are known to have originated elsewhere have developed an enormous secondary diversification in Ethiopia. Species biodiversity in Ethiopia includes 280 mammals, 861 birds, 201 reptiles, and more than 6,000 plants with high rates of endemism. The white-eared kob migration in low land Gambella is the second largest mammal migration in the world. According to the International Union for the Conservation of Nature’s (IUCN’s) 2007 “red list” of these species, Ethiopia has 6 that are critically endangered, 23 endangered, and 70 vulnerable.

Ethiopia’s economy and the wellbeing of its people are highly dependent on sustainable use of biodiversity. No less than 80 per cent of the rural community and a significant proportion of the urban dwellers in Ethiopia depend on herbal medicines for their primary health care delivery system. In addition to foods, medicine, fuel wood, and construction materials, biodiversity, provides wildlife habitat and recreational opportunities, prevents soil erosion and flooding, help provide clean air and water. A recent study of the economic value of Ethiopia’s protected areas estimates the value of biodiversity in EWCA managed protected areas to amount to at least US\$ 3.75 million per annum, but could be as high as US\$ 112 million per annum; the value of watershed services of protected areas to be at least US\$ 432 million per annum; the economic value of carbon stored above and below ground in EWCA managed protected areas to be US\$ 938 million, and the value of medicinal plants collected in EWCA managed protected areas and the value of their associated trade is estimated to amount to US\$ 13.2 million per annum.

Threats to Biodiversity

Habitat loss and habitat degradation continue to be major threats. Conversion of forests, woodland and shrub land into agricultural land is by far the largest driver of habitat loss resulting in loss of biodiversity and associated ecosystem services. Studies show that 80% of new agricultural land developed between 2000 and 2008 was converted from forests, woodlands or shrub lands. There is growing pressure on natural resources by farmers and livestock owners, and from large foreign agro-industrial investments. Conversion of forest to pastureland is the second biggest driver of habitat loss. According to the preliminary analyses conducted by the EDRI in 2010, total cattle population is expected to increase from 51 million animals in

⁷ ibid

2008 to 110-120 million in 2030. Last but not least, over grazing of rangeland, over-cultivation of cropland, water logging and deforestation are the main drivers of habitat degradation. Recent reports show the number of cattle are exceeding the available land's carrying capacity in many areas, and some rangelands are degraded. This is resulting in fuel and fodder becoming increasingly scarce, water courses drying up, thorny weeds becoming predominant in once-rich pastures; footpaths disappearing into gullies, soils becoming thin and stony, and as a result reduced current and future yields from agricultural land with strong implications for future food security.

Nearly 95 percent of the Ethiopia's energy consumption comes from biomass fuels. This includes fuel wood, charcoal, branches, leaves and twigs. Charcoal is currently made, sold, transported, and used as a major source of fuel in most urban and rural areas despite a recent Government ban on its use. Its prevalence along the roadsides means that enforcement is lacking. Firewood consumption is expected to increase in the same proportions. Unsustainable fuel wood consumption prevents forests from regenerating, and leads to increased vulnerability to climate change. Deforestation ultimately strips the land of its vegetative biomass, exposing it to high levels of soil erosion. The economic loss of deforestation is believed to be around US\$ 660 per hectare per year, amounting to a loss of US\$ 19 million per annum. In a 'business as usual' scenario, this level of deforestation and degradation is expected to worsen in the coming decades, as population grows at 2-3 per cent per year. Estimates indicate that the economic losses from soil erosion alone could lead to a 2-3 percent drop in annual agricultural GDP, which would have major negative repercussions on Ethiopia's already precarious food security situation. This picture is complicated even further by the higher probability of extreme weather conditions arising from climate change and increased variability in rain and temperature.

The Long Term Solution

In order to achieve the ambitious goals set forth by the GTP and CRGE of transforming Ethiopia to the status of middle-income country by 2030, the annual growth rate must be sustained at over 10 per cent. This puts a lot of pressure on natural resources. For example, the requirement for agricultural land is projected to increase by 19 million ha by 2030 to meet the demands of a growing population that is expected to reach 130 million in 2030, from 81 million in 2010. This means there will either have to be a dramatic increase in land available for agriculture, major technological improvements or a shift to alternative livelihoods.

There is an urgent unmet need to ensure that the current high level of growth and planned investments do not continue to impact negatively on biodiversity. This is especially important for the majority of Ethiopians for whom biodiversity is an important asset that help to deliver key ecosystem services (e.g. food security, clean and secure water supplies, greater resilience to extreme weather events). The CGRE does not adequately address biodiversity concerns. This project is designed to address this need by putting in place *safeguards to ensure biodiversity is protected* amidst this flurry of rapid economic growth and development. The project aims to change the trajectory of development through ensuring biodiversity is mainstreamed at the national and landscape level. At the national level, the project will put in place decision support tools and build the capacity of relevant staff to ensure land use and infrastructure placement decisions do not impact negatively on biodiversity. At the landscape level, the project will pilot payments/incentives for biodiversity conservation as a mechanism for compensating landholders for avoided land conversion. The payments will ***trigger a shift from contra-conservation to conservation-compatible land uses*** and provide the additional incentive needed to engender the desired changes in land use. The incentives will be a sustainable complement to the CRGE implementation strategy of reducing GHGs while also ensuring other environmental benefits

This is an opportune moment for this project as the CRGE is only starting implementation now, and it is easier to put in safeguards *ex ante* rather than *ex poste*. Secondly, the establishment of an international mechanism to compensate countries for reducing emissions from deforestation and forest degradation (REDD+) as part of the international climate change negotiations provides Ethiopia with an opportunity to create and operationalize a new incentives framework, and to capitalize on its biodiversity for generating additional financial flows much needed for its ambitious Growth and Transformation Plan and CRGE.

PROJECT BASELINE

Public Expenditure Reviews (PERs): PERs for the Health, Education⁸, Agriculture, Forestry and Infrastructure sectors have been done in Ethiopia. However, there has not been a specific PER on Environment or Biodiversity and Ecosystem Services. The *International Food Policy Research Institute (IFPRI)* reviewed public expenditure of the health, agriculture and infrastructure sectors.⁹ Of particular relevance to this proposed project is the PER of the agricultural sector which found that while the contribution of a strong agricultural sector to the incomes of both farming and non farming rural households is strong—the link between public expenditures in agriculture and performance in agriculture is poor, resulting in non significant returns to agricultural spending. The review suggests that a more careful examination of the composition as well as the execution of the agricultural budget would be advisable, in order to explore how it can be made more effective.

The *World Bank Program on Forests (PROFOR)*¹⁰ reviewed 61 forestry-related PERS including *Ethiopia's Agriculture and Rural Development Public Expenditure Review 1997/98 – 2005/06* and *Ethiopia's Forest Revenue System and Government Expenditure on Forestry* by FAO in 2001. The review found, among other things, problems with definitions of forest and forest sector; inconsistencies between policy priorities and planned budget allocations to the forest sector; and limited analysis of the

⁸ The Education PER carried out in 2010 was sponsored by the UK DfID and UNDP

⁹ The Bang for the Birr; Public Expenditures and Rural Welfare in Ethiopia –IFPRI 2008

¹⁰ Fowler, M., Abbott, P., Akroyd, S., Channon, J., and Dodd, S. (2011). Forest Sector Public Expenditure Reviews: Review and guidance note, Program on Forests (PROFOR), Washington DC.

efficiency and effectiveness of forest expenditures in relation to outcomes. The review concluded that a forest sector PER needed to be carried out regularly and timed so that its findings feed into the government budget process. A PER can also contribute to the Reducing Emissions from Deforestation and Forest Degradation (REDD) process, and related support mechanisms such as the Forest Investment Program (FIP).

Decision Support Tools: GIS Mapping is being used in Ethiopia. The Ethiopia Mapping Agency (EMA) Geo-information services was established in 1954 as a unit within the ministry of education. Since its establishment, it has been providing services in mapping surveying, geodesy cartography and remote sensing, photogrammetry and other related geo-information field for the last half century.

There is some project specific biodiversity monitoring- but not at national scale. The project on *Biodiversity Monitoring in Forest Ecosystems in Bale Mountains National Park* (Sept 2005 – August 2008) conducted research and strengthened the capacity of researchers, park managers and other government agents, and local people to carry out vegetation mapping through remote sensing technology. Accurate and updated vegetation maps were produced and used for conservation planning and natural resource management.

A Biodiversity Indicators Development National Task Force is in place. It was established as part of the Biodiversity Indicators Capacity Strengthening in Africa Project (BICS Africa) which was designed by UNEP WCMC to assist the eastern and southern Africa countries to develop biodiversity indicators of their choice on a sustainable basis. (2010 BIP: www.twentyten.net)

(iii) Payments for Ecosystem Services: A feasibility assessment of PES in Ethiopia was done in 2008¹¹. The study found that there is scope for payments for biodiversity conservation – however there is a strong need to improve communities` participation in income generation from biodiversity conservation in the region. Communities are the providers of ecosystem services, but they are not the legal owners. To enter a PES deal, communities need to be facilitated to form legally recognized entities such as community based organisations. The study also found that there is enabling policy environment for PES, specifically, the environmental protection policies and proclamations, the forest policy and proclamations, poverty reduction strategies and other related sector policies all emphasize the need to involve local communities in the sustainable management of natural resources, particularly forests. However, the majority of these policies and strategies lack detail implementation guidelines for PES. The study also recognizes the existence of is also Oromia State Forest Enterprises Supervising agency and the Bale Forest Enterprise as potential PES monitoring institutions. Last but not least the study calls for intensive awareness raising and capacity building; and the involvement of legal experts in drawing PES contracts to clearly address issues of conditionality, liability and exit options for both contract partners.

The *Forest Carbon Partnership Facility* review of the REDD PIN also noted that monitoring and the payment for environmental services are two key areas where capacity in Ethiopia is lacking. A REDD program will need to help the country develop both areas, or alternatively start with project-specific activities before developing a national program.

The Government has developed a REDD Readiness Plan. The plan is committed to funding the following critical elements (i) empowering and strengthening local community organizations; (ii) institutionalizing the required inspection and regulatory activities at the federal, regional and district levels; (iii) increasing the number of forest inspectors and the frequency of inspection; (iv) capacity building and empowerment of the inspectors; (v) creating a wood and timber product certification system; and (vi) strengthening coordination between the judiciary and public prosecution authorities.

iv) Conservation of Threatened Species: *The Government invests about US\$ 1.083 million dollars a year in biodiversity management.* Even though the budget has been increasing every year, a financial gap analysis study by Ethiopia Wildlife Conservation Authority shows that the sector is grossly underfunded. The study estimates that the financial requirements to be at least 4 times this amount.

There are several initiatives underway to conserve threatened species including The GEF funded “*Sustainable Development of the Protected Area System of Ethiopia*” project which is strengthening the PA system to better conserve threatened species; The *Mainstreaming Agro-biodiversity project* is conserving agro biodiversity and wild crop relatives.

The *Removing Barrier to invasive Plan Management in Africa* project which is addressing barriers to the control of invasive plants and the “*Mainstreaming Conservation of migratory soaring birds into key productive sectors along the Rift Valley/Red Sea Flyway*”, project which is protecting 39 species of soaring birds, of which 6 are globally threatened.

The Government has taken action to stem forest losses. Policy options for turning around the forestry sector are being explored and implemented. Adequate incentives for sustaining the natural resource base and managing the environment need to be provided to sustain the forests of Ethiopia.

The Government has also promoted community-based forest management organizations. Over the last twelve years the Government has supported the development of community-based forest management organizations within various Participatory Forest Management (PFM) programs. The organizations, which may take any of three legal forms— associations, cooperatives or private limited liability companies—sign Joint Forest Management Agreements (JFMA) with the Government or regional governments to manage and benefit from demarcated forest areas. The most common of the three organizational types is however

¹¹ Sustainable Financing Mechanisms for the BESMP Part I: Basic assessment of payment schemes for environmental services (done for FARM Africa – SOS Sahel Ethiopia /Bale Eco-Region Sustainable Management Pro-gramme (BESMP) – by Dr. Christian Held and Dr. Jochen Statz

cooperatives, which are often criticized for the level of bureaucracy which leads to poor performance and slow payment of dividends.

The CRGE has already made tremendous strides in providing a vision, high-level commitment, credible analysis and planning an extensive portfolio of investments. Over 150 GHG abatement technologies were screened against conditions in Ethiopia, coming up with an investment plan of over 60 viable projects. The initiatives that were prioritised include: (1). Improving crop and livestock production practices for reduced emissions, whilst increasing food security and farmer income; (2) Protecting and re-establishing forests for their carbon stocks and other ecosystem services; (3) Expanding electricity generation from renewable sources of energy for domestic and regional markets; and (4) Leap frogging to modern and energy-efficient technologies in rural cooking, transport, industry, and buildings. Agriculture has emerged as a priority for both GHG abatement and climate adaptation. Investments in Agriculture are expected to result in a significant reduction, not only in GHG emissions in agriculture, but also in agriculture's GDP share (higher agricultural productivity and changing types of livestock), dropping from 42% today to only 29% by 2025.

BARRIERS TO ACHIEVING THE LONG TERM SOLUTION

Barrier	Elaboration
<p><i>Lack of capacity and decision support tools to check adverse development and its impacts on biodiversity</i></p>	<p>Federal Government Ministries both at national and regional level lack capacity and decision support tools to regulate on going land conversion or check adverse impacts on biodiversity. There are some rudimentary regional planning exercises, but not based on a comprehensive resource assessment. There is a strong need for tools that can track biodiversity and socio-economic impacts (such as GIS mapping of critical biodiversity areas, biodiversity scorecards) of the large investments planned by the CRGE. They are much needed to support green growth mainstreaming, ensure policy coherence, and enable the kinds of investment that the CRGE promotes. The ability to predict these should be an important component of any strategy that attempts to shift policy and investment towards biodiversity friendly options.</p> <p>Last but not least, population growth, persistent rural poverty, loss of forest cover, arable soils, pastures, inland fisheries, and water flows; have reached such extreme proportions, that economic growth capabilities are likely to be affected. However, <u>the economic effects of these trends are not reflected in the national accounts, which provide the essential data, based on which most economic policy decisions are made.</u> There is a strong need for a public environmental expenditure review to inform the CRGE investments</p>
<p><i>Lack of a coherent incentive framework to curtail habitat loss and degradation</i></p>	<p>Many poor farmers in Ethiopia live from hand-to-mouth and manage resources with very short term planning horizons. In such circumstances they cannot afford to carry the cost burden of conservation from which the broader national and global society benefits. Although at a global level biodiversity is highly valued, these values are not translated into incentives for local resource users who are in direct interaction with forest resources for their livelihoods. There is need for an incentive framework with clear mechanisms to pay for the conservation of these forests. There is also need for clear and uniform benefit sharing and reward mechanisms to discourage an “open access” mentality and forest conversion to other land use.</p>

ALTERNATIVE SCENARIO AND INCREMENTAL BENEFITS

The baseline investments, though impressive, are not focused on addressing the current loss of biodiversity. This project will supplement the current baseline investments efforts through the following 2 components: Component 1 activities will focus at the national level, while component two activities will focus at the site level.

Proposed Modifications of CRGE: There are two key gaps in the CRGE strategy that this project aims to address. One is that the CRGE *does not adequately recognize conservation and sustainable use of biodiversity as one of the solutions available for Ethiopia to achieve greener paths of development.* Secondly, *systems for tracking environmental, social and economic impacts of the CRGE (PEER, SEA, etc.), which are integral components of an inclusive green growth strategy are currently missing in the*

CRGE. These systems are needed to support green growth mainstreaming, ensure policy coherence, and ensure the kinds of investment that the CRGE promotes do not negatively impact on biodiversity and livelihoods. A joint case study by the *Environmental Protection Authority of Ethiopia* and the OECD¹² highlights similar gaps and makes the following recommendations:-

- The need to highlight the potential for biodiversity to contribute to GDP and poverty reduction;
- More focus on specific poverty and inequality issues connected to natural resources (biodiversity), and at the opportunities/risks for those groups that are dependent on natural resources;
- The need for clarity on what the government spends on environmental investment or protection; coding the budget for environmental expenditure; in order to understand better environmental costs, benefits or risks.
- The need to balance the CRGE's singular focus on achieving middle income status and GHG reduction, with systemic improvements to institutions and governance; and
- The need to better understand social pressures arising from the lack of rights to land that could lead to dislocation and conflict.

This project is designed to address these issues by mainstreaming incentives for biodiversity conservation into the CRGE both at national and landscape level

Component 1: Strengthening the Enabling Framework for Mainstreaming Incentives for Biodiversity Conservation into the CRGE: This component will support two main activities:

1. Decision support tools developed and capacity of relevant staff strengthened to check adverse development in areas of critical biodiversity : The first step will be a process of GIS mapping of areas of critical biodiversity. A biodiversity scorecard will then be developed to determine no go areas, go to areas with certain conditions, and go to areas with no conditions. A check list incorporating the mitigation hierarchy to avoid-mitigate-offset impacts on biodiversity will then be developed for relevant staff to use when making decisions on infrastructure placement, investments and any other land use. Most of this work will be carried out together with country nationals who will be fully trained in order to develop a core of capable in-country professionals.

2. A public environmental expenditure review. The main purpose of this review is to ensure that the value of biodiversity and the costs of degradation are reflected in national accounts. This will ensure that investments that could result in the degradation of biodiversity are discouraged. The review will look closely at the linkages between the CRGE and national biodiversity policy; and the resource allocation and expenditure processes as they relate to programmes and policies that support biodiversity management. This will result in the values and costs of natural resource depletion to be better reflected in the national accounts, which provide the essential data, based on which most economic policy decisions are made. Just as in component one, all this work will be led by country nationals with support from experts as needed.

How the CRGE Funding Facility is related to the proposed “public expenditure review” and the enhanced conservation of threaten species:- The CRGE is the main policy driver and the CRGE facility is the central vehicle for allocating funding for implementing priority projects. One of the barriers highlighted in the PIF is that key threats to biodiversity such as high population growth, persistent rural poverty, loss of forest cover, arable soils, pastures, and so on have reached such extreme proportions, yet the economic effects of these trends are not reflected in the national accounts which provide the essential data, based on which most economic policy decisions are made.

The Public Environmental Expenditure Review (PEER) will examine CRGE facility allocations within and among sectors, and/or at national and sub national levels of government, and assess the efficiency and effectiveness of those allocations in the context of biodiversity management and conservation of threatened species. The PEER will examine whether CRGE spending priorities are effectively matched to biodiversity priorities, identify areas of inconsistency, and identify reforms needed to improve the effectiveness, efficiency and sustainability. The expected outcome of the PEER is for example redistribution of spending towards biodiversity priorities, and towards longer-term goals rather than short-term ones that could result in biodiversity loss and undermine long term economic growth.

Component 2: Piloting and Operationalising Payments for Biodiversity Conservation:

This component will support piloting and operationalising Payments for Ecosystem services (PES) in selected sites in the afro-montane forests where habitat loss and habitat degradation pose the highest threat. The logic of *Payments for Environmental Services (PES)* is that compensating land users for the environmental services a given land use provides makes them more likely to choose that land use rather than another. The component will support (1) developing metrics for measuring the actual amount of environmental services being provided, so that appropriate payments can be made; (2) monitoring payments to ensure they result in the desired change in land use; and (3) putting in place safeguards to avoid the creation of perverse incentives. The scheme will also entail extensive monitoring of the effectiveness of payments in stimulating adoption of the proposed measures and of the resulting impact on environmental services and on household welfare, Specifically, the following activities will be supported:

a) Brokering Finance and Establishing the Metrics for Payment: - Since the program participants (farmers/land users) will be

¹² **Making Growth Green and Inclusive: The Case of Ethiopia**” by the Government of Ethiopia and the OECD (2013)

compensated through government-financed payments from the CRGE facility, there is no need to look for a buyer. However, before any payments can be made, there is need to define the metrics for payment and how much to pay. This is the part that this component will support. This will generally entail preparing a list of land uses and associate each with a point system upon which payments are based. Separate indices will be developed for the biodiversity conservation and other benefits of each land use. These two indices will then be aggregated to form an environmental service index to be employed as the basis for calculating payments to farmers. The points given to each specific land use will take into consideration factors such as the number of species (of plants, birds, small mammals, and insects), their spatial arrangement, stratification, and plot size. This approach will also take into consideration the different impact that different land uses are likely to have on biodiversity. The impact depends not only on the characteristics of the land use, but also on its location, its extent, and its relationship to other land uses. *[Specific details will be finalized during the PPG phase)*

b) *Organizing sellers/capacitating program participants to provide the service:* Once the finance is brokered and metrics of payment are determined, program participants will be solicited and trained on the entire PES process. They will then enter into contracts under which they will receive a payment from Government for the environmental services that they generate on their land. They will receive annual payments over a two- or four-year period, based on the increment in environmental services provided relative to the baseline situation for that particular farm. In order to avoid perverse incentives. The extent to which land users have already adopted practices that conserved biodiversity prior to the project would be reflected in their baseline, and only increments to this index should ideally be compensated¹³. However, the project may allow a one-time payment for pre-existing biodiversity friendly practices. This payment has the further benefit of helping to alleviate financing constraints to implementing the new practices. The upfront payment, which will be provided in the early period of adoption- will be sufficient enough to 'tip the balance' between current and desired land use. Payment levels will be set at slightly more than the opportunity cost of the main alternative land uses. This effect works by increasing the net present value of engaging in the scheme and also by reducing the initial period in which adoption of these systems imposes net costs on land users. By the time payments end, the biodiversity friendly practices themselves will be ready to begin generating income for land users. The payments also alleviate the liquidity problems faced by many land users and help them finance the required investments. It is important that payments be on-going rather than finite. This is because environmental services are to be generated over a long period of time (presumably, indefinitely). Ending payments sooner creates the risk that land users will revert to their previous land use practices. Payments for environmental services can only have the desired effect only if they reach the land users in ways that influence their decisions on how to use the land. *{Specific details of the programme will be finalized during the PPG phase)*

3: *Establishing/Strengthening institutions to monitor compliance and assess whether the service has been delivered:* In order to verify that the biodiversity friendly practices promoted under the project actually generate the expected environmental benefits, biodiversity will be monitored in all land use types in the target areas. *[Indicators for this will be developed during the PPG phase]*. Monitoring will also look at the degree to which the project is encouraging participants to undertake the desired changes in land use. This would require monitoring the changes in land use of the participants themselves, and of a control group (so that the impact of the project itself can be distinguished from other trends that might affect land use).The target group itself will be partitioned into two groups, so that the impact of technical assistance provided by the project.

Monitoring will enable the project to prevent and or address issues such as (I) non-compliance with contractual conditions;(ii) poor administrative selection (i.e., *contracts offered to areas or individuals who are not in the best position to supply environmental services cost-effectively*);(iii) Leakage: whereby protecting a resource in one location pushes pressure onto resources elsewhere; and (iv) Adverse self-selection, where people would have supplied the contracted PES service or activity even in the absence of a payment. *(Indicators for this and other details of the monitoring programme will be finalised during the PPG phase]*

Link between the proposed activities to conserve threatened species, and the CRGE and the PES schemes:- Given the ambitious targets set forth by the CRGE, it is clear GDP and domestic savings alone will not be enough to achieve what is needed. Ethiopia's green growth plans will inevitably rely on attracting international climate finance and other foreign investment. PES is one of the vehicles available to Government for attracting such finance through for example REDD. Ethiopia has already developed and submitted a REDD Readiness Plan and is benefiting from the World Bank's Forest Carbon Partnership Facility. About US \$3.6 million was received and is under implementation by Ministry of Agriculture. There is also an additional USD 10 million for Bio Carbon expected from government of Norway and DFID

In terms of conserving threatened species, the criteria for selecting the sites for the PES pilots is that they must be located where there is the highest threat to biodiversity and close to sites of global biodiversity importance such as the SW Afro montane forests. Therefore the land use changes planned under the PES component are expected to result in conservation of threatened species through avoided deforestation and biodiversity friendly land use practices.

THE PROPOSED TARGET SITE - The Southwest Highland Forests

The project is targeting the Southwestern highlands of Ethiopia which include the largest of the two remaining blocks of Afromontane forest vegetation that is part of the **Eastern Afromontane Biodiversity Hotspot**, one of 34 globally recognized biodiversity hotspot areas in the world. The highlands also form the upper catchment of several important rivers including the

¹³ Experience from other PES programmes has shown that this strict approach does not always work

Baro and *Akobo* tributaries of the Nile. The forests contain the world's only wild population of wild *Coffee Arabica*¹⁴, and genetic information contained in Ethiopian highlands is important as a reservoir of genetic diversity, crucial for coffee breeding. Approximately 1.4 million ha of this wild Arabica coffee with over 5000 varieties can be found in this area. The variability in their tolerance towards diseases and drought reflects the high genetic diversity of the wild coffee populations. Years of research in the forests reveal that the coffee forests are not only rich in plant biodiversity; but the wild populations have higher level higher genetic diversity compared to cultivated coffee in plantations and home gardens. The wild populations have also been found to have high functional diversity in terms of resistance to pest and diseases. The forests and woodlands sequester around c 300 million tons of carbon dioxide per year in 1.4m hectares of wild coffee. However, due to the need for small holder agricultural land for food production; opening up of land for commercial estates by outside investors; gradual establishment of specialized coffee cultivation systems, and immigration and resettlement schemes, forest cover is being lost at an alarming rate.

Table 1: Main Forest and Land Use Characteristics in selected upland and mid hill regions

	Upland Region (<i>Sheka</i>)	Mid Hill Region (<i>Bench Maji</i>)
Altitude	1800-2600 above sea level	900-1800 above sea level
Natural vegetation	Mixed deciduous forest Bamboo forest	Mixed deciduous forest with coffee as a characteristic under storey species
Forest Cover	50-60%	ca 15%
Land Use	Forest use, small scale subsistence oriented agriculture	Coffee extraction from natural and semi natural forests, Garden coffee cultivation, coffee plantations Small scale agriculture with some locally marketed products
Average size of cropland per household (in hectares)	<i>Rich Households</i> : 3.1ha <i>Middle income Households</i> : 2.2 ha <i>Poor Households</i> : 0.8 ha	<i>Rich Households</i> : 9 ha <i>Middle Income Households</i> : 4.2 ha <i>Poor Households</i> : 0.7 ha

Source: *Forest and Livelihood Conditions in South West Ethiopia*, in *Degraded Forests in Eastern Africa: Management and Restoration*; edited by John Hall, Clemens Fehr, Frans Bongers, Juergen Huss, Timm Tennigkeit (Earthscan 2012)

The forests are also a major source of livelihoods for most communities. According to a recent study of livelihood comparisons in the upland and mid hill regions¹⁵, about 48% derive their livelihood from agriculture (food crop and garden coffee), while about 25% are engaged in both agriculture and forest product extraction; and 27% in sole collection of forest coffee or honey. The study also indicates that the 73% of the farm products are consumed within the household which means income from farming is relatively low. The major sources of cash incomes are forest products providing about 49%. For some households, the presence of different forest and cultivation systems offers a diversified livelihood strategy with high value forest production supplementing agricultural production.

This presence of different type of modified and transformed forest systems has negative implications for natural forest cover which is increasingly being converted to food crop production systems and mixed tree crop production systems. There is need for an incentive framework to curtail habitat loss and degradation; and to improve the capture of revenues from forest resources. *[Exact location and details of the sites will be finalised during the PPG phase]*

Pros and Cons of Direct vs. Indirect Payments for Conservation (*Select Literature Review*):

This project has opted for direct payments for conservation after a thorough review of the literature which shows that direct payments for conservation are by far the more effective and efficient mechanism.

- **Indirect Payments for Conservation:-** These include payments/incentives that encourage rural communities to maintain biodiversity by helping them to use it sustainably. They may also provide alternative sources of products, income, or social benefits (schools, wells, clinics, etc.) as a means of encouraging communities to cooperate. Examples include initiatives like Integrated Conservation and Development Projects (ICDP) and Community-Based Natural Resource Management (CBNRM). These kinds of efforts have been referred to as “conservation by distraction” (Ferraro, Simpson 2002).
- **Direct Payments for Conservation:** These are payments to individual or communal land owners/farmers for conservation friendly practices, protecting entire ecosystems or specific species, conservation easement programs, and so on. Direct payments can have diverse institutional arrangements existing among governments, firms, multilateral donors, communities, and individuals.¹⁶ Several successful programmes already exist in Europe, USA & Australia, and there are several pioneering examples in developing countries such as forest protection payments in Costa Rica, conservation leases for wildlife migration corridors in Kenya, conservation concessions on forest tracts in Guyana, and performance payments for endangered predators and their prey in Mongolia. South Africa and American Samoa.¹⁷

¹⁴ Around 75% of the world's coffee production is from *Coffee Arabica*

¹⁵ Source: *Forest and Livelihood Conditions in South West Ethiopia*, in *Degraded Forests in Eastern Africa: Management and Restoration*; edited by John Hall, Clemens Fehr, Frans Bongers, Juergen Huss, Timm Tennigkeit (Earthscan 2012)

¹⁶ www.katoombagroup.org - Various inventories of PES programs

¹⁷ The Katoomba Group (ibid)

Direct payments are generally considered to be a more effective and efficient mechanism for conservation than indirect payments¹⁸. The basic principle is that the cheapest way to get something you want is to pay for what you want (e.g., protected rain forest), rather than pay for something indirectly related to it (e.g., capital for improving eco-tourism), or more simply “you get what you pay for.”¹⁹

Indirect payments on the other hand are considered to be less effective. Some studies²⁰ have pointed to basic conceptual flaws; for example, people are more likely to incorporate new sources of income as complements to existing activities rather than as substitutes for them. Others have noted that the technical, economic, social, and political conditions needed for an indirect approach to succeed are difficult to find in the real world²¹. For conservation initiatives that encourage extractive activities (e.g., non timber forest product collection), sustainability remains a key concern. A recent review of ICDPs²² declared that there was “a notable lack of successful and convincing cases where people’s development needs have been effectively reconciled with protected area management.” Indirect approaches are also likely to require a sustained flow of funds over time. A recent World Bank analysis of ICDPs²³ argued that conservation initiatives “based on simplistic ideas of making limited short-term investments in local development and then hoping this will somehow translate into sustainable resource use and less pressure on parks need to be abandoned.”

There are other important factors why direct payments are considered to be more efficient than indirect payments:

a) *Administrative costs*: Existing direct payment initiatives have estimated administrative costs from 5% to 25% of the operating budget²⁴, whereas ICDPs have administrative costs at least as high, and often higher²⁵. Case studies of Cambodia (*Bird Nest Programme*) and Mexico (*Monarch Butterfly Conservation Fund*) show that the most direct individual contracts have the simplest institutional arrangements, the lowest administrative costs, disbursed significant payments to individual villagers making a substantial contribution to local livelihoods, and rapidly protected globally significant species²⁶. In Mexico specifically, results also demonstrate that by providing an economic incentive, the Butterfly Conservation Fund established a direct link to conservation and gave legitimacy to landowners.²⁷

b) *Cost efficiency*: Direct payment approaches are considered to be more cost-efficient than any indirect approach. For example, an analysis of a conservation intervention in southeastern Madagascar indicates that, were the nearly \$4 million of available conservation funds invested in annual payments conditional on the protection of forest, about 80% of the original forest could have been protected into perpetuity, whereas only 12% could have been protected through support of indirect incentives. Furthermore, rural residents receiving conservation payments would have received incomes two times those that could be generated through an indirect intervention²⁸.

c) *Affordability*: Paying people to protect habitat and wildlife is affordable. For example, the middle-income nation of Costa Rica pays rural residents about \$35 annually per hectare of forest protected, and excess demand for conservation contracts suggests that these payments are considered to be attractive²⁹. Even cheaper, Conservation International is protecting 81,000 hectares of rain forest in Guyana through a conservation concession that costs \$1.25 per hectare per year (24), and The Wildlife Foundation in Kenya is securing migration corridors on private land through conservation leases at \$4 per acre per year.³⁰

d) *Development benefits*. The indirect approach is considered to be attractive because it appears to achieve conservation and development objectives simultaneously. However, direct payments benefit participants by improving cash flows, providing a

¹⁸ Ferraro & Kiss (2002); Direct Payments to Conserve Biodiversity; www.sciencemag.org

¹⁹ Ferraro & Kiss (2002); *ibid*

²⁰ A. Kiss, “Making biodiversity conservation a land use priority,” in *Getting Biodiversity Projects to Work: Towards More Effective Conservation and Development*, T. McShane and M. Wells, eds. (Columbia Univ. Press, New York, in press).

²¹ N. Salafsky et al., *Evaluating Linkages Between Business, the Environment, and Local Communities: Final Analytical Results from the Biodiversity Conservation Network (Biodiversity Support Program, Washington, DC, 1999)*. SEE ALSO- D. Roe et al., *Evaluating Eden: Exploring the Myths and Realities of Community-Based Wildlife Management Series No. 8*, International Institute for Environment and Development (IIED) Publications, London, 2001], 62 pp.

²² Wells et al., *Investing in Biodiversity: A Review of Indonesia’s Integrated Conservation and Development Projects (East Asia Region, World Bank, Washington, DC, 1998)*.

²³ Wells et al., Wells et al., *Investing in Biodiversity: A Review of Indonesia’s Integrated Conservation and Development Projects (East Asia Region, World Bank, Washington, DC, 1998)*.

²⁴ The environmental effects of agricultural land diversion schemes” [Organization for Economic Cooperation and Development (OECD), Paris, 1997]. See also “Project appraisal document on a proposed IBRD loan of US\$32.6 million to the Republic of Costa Rica and a grant from the Global Environment Facility Trust Fund of SDR 6.1 million (US\$8 million equivalent) to the National Forestry Financing Fund for the Ecomarkets Project,” San Jose, Costa Rica, 15 May 2000 (Central American Department, Latin America and the Caribbean Regional Office, World Bank, Washington, DC, 2000).

²⁵ J. Peters, *J. Agric. Environ. Ethics* 11, 17 (1998). Peters, a former consultant to an African ICDP, estimated that 55% of his ICDP’s budget went to U.S.-based administrative overhead and expatriate technical consultants, which is a common outcome among ICDPs. Only 2% of the budget went to rural residents living around the endangered rain forest ecosystem.

²⁶ Clements et al (2010); Payments for biodiversity conservation in the context of weak institutions: Comparison of three programs from Cambodia

²⁷ Mónica Missrie & Kristen Nelson (2005); *Direct Payments for Conservation: Lessons from the Monarch Butterfly Conservation Fund*

²⁸ J. C. Conrad, P. J. Ferraro, “Habitat conservation: The dynamics of direct and indirect payments” (Environmental Policy Working Paper Ser. 2001-005, Andrew Young School of Policy Studies, Georgia State University, Atlanta, GA, 2001); available at <http://epp.gsu.edu/pferraro/docs/ConradFerraroWorkingPaper2001Distrib.pdf>

²⁹ E. Ortiz, (2002) Paper presented at symposium -Direct Payments as an Alternative Conservation Investment

³⁰ H. Gichohi (2002) Paper presented at symposium - Direct Payments as an Alternative Conservation Investment.

fungible store of wealth, and diversifying sources of household income. Furthermore, under a payment approach, the land holders/resource users decide how best to meet their own goals and aspirations, rather than being subsidized to carry out predetermined activities as is the case under the indirect approach. For example, the case studies from Cambodia³¹ show that payments increased the value of the biodiversity resource to local people, both directly through individual payments and indirectly by providing funds for village development. Secondly, the payments funded the costs of management of common-pool resources by village institutions, a system which is itself a public good and third, the payments funded monitoring and sanctioning by the village institutions. The structure of the payments—providing revenue at both the individual and village-level scale—ensured that these outcomes were possible³².

Table 2: Prerequisites for Funding the PES Component³³

<i>PREREQUISITE</i>	<i>HOW THE PROJECT WILL FULFILL IT</i>
There must be a buyer: showing demonstrated willingness and ability to pay.	The Government of Ethiopia has committed to buying the ecosystem services generated by the project activities, and attracting additional buyers by the end of the project. Payments will come from National Government, CRGE Facility and Regional Government budgets. From the federal government budget allocation, regional governments are required to allocate 2% of their budget for environmental activities. Some of this funding will be used to pay for PES. More details, including letter of commitment will be submitted at CEO endorsement.
There must be a seller—able to provide the environmental service cost effectively.	The sellers/program participants will be selected during the PPG phase
Institutions must exist to ensure the environmental service has been delivered, and to enforce compliance	Institutions exist. A capacity assessment will be carried out during the PPG and the relevant institutions will be determined then.
The PES scheme needs to be applied at scale in order to be meaningful	It is anticipated that the piloting sites will cover 20,000 ha, but will impact a much larger area by end of project. (Approximately 250,000 ha). Exact scale will be confirmed during PPG
The payments received must be sufficient to engender sustainable land use that is competitive against alternative incomes paid from contra conservation land uses.	An analysis of opportunity costs and trade offs will be carried out during the PPG
The PES project proposal should describe design choices to minimize these threats and specify indicators that will permit one to evaluate the importance of these threats in the project.- (1) <u>non-compliance with contractual conditions</u> ; (2) <u>poor administrative selection</u> (i.e., contracts are offered to areas or individuals who are not in the best position to supply environmental services cost-effectively); (3) <u>spatial demand spillovers</u> (a.k.a., general equilibrium effects, or “leakage”) whereby protecting a resource in one location pushes pressure onto resources elsewhere; and (4) <u>adverse self-selection</u> , where people would have supplied the contracted PES service or activity even in the absence of a payment.	The project will address these threats through rigorous monitoring and corrective measures.

Sustainability:- Given that there was full participation of the relevant stakeholders through out the NPFE and PIF development; and the local and Regional Governments have expressed their commitment officially (through letters of support), Government is positive that this project is sustainable. Furthermore both the federal and regional governments are committed to the successful implementation of the CRGE and this will also ensure all project interventions are sustainable.

Government already has an existing Ex Poste Reward scheme whereby

- Beneficiary communities develop work plans and agree with EPA on results to achieve.
- EPA monitor results - measures and verifies achievements against the previously agreed results
- EPA then rewards communities for achieving results.

The PES will complement this scheme.

³¹ Clements et al (2010); Payments for biodiversity conservation in the context of weak institutions: Comparison of three programs from Cambodia

³² Clements et al (2010); *ibid*

³³ The PES Component of this project will go forward only if it fulfills these GEF prerequisites:

Scale-up: The strategy for scaling up will be formulated during the full project proposal preparation. The level of investment required to scale up will also be determined then. The 250,000 ha is the anticipated figure which could even go higher or lower.

GLOBAL ENVIRONMENT BENEFITS

The project will secure conservation security for Ethiopia's biodiversity. Specific global environmental benefits to be delivered by the project are highlighted in the table below:

Without project intervention	With project intervention	Biodiversity Benefits
<u>Habitat conversion and Habitat degradation:</u> Conversion of forests, woodland and shrub land into agricultural and pasture land; over grazing of rangeland, over-cultivation of cropland, water logging and deforestation; resulting in loss of biodiversity and associated ecosystem services, water courses drying up; reduced current and future yields from agricultural land with strong implications for future food security.	<u>Incentives/payments for conservation of biodiversity in agricultural landscapes:</u> PES pilot mechanisms established in the selected sites, generating uptake of biodiversity friendly land use options that enhance conservation of globally significant species; Increased food security: more, better yields. At least 250,000 hectares of the highly threatened afro-montane forests are under improved stewardship by community land managers, reducing pressure on biodiversity, indicated by no net loss of habitat in BD sensitive areas (from clearance for agriculture)	Reduction of threats from land use changes to endemic species in critical biodiversity areas Conservation status of threatened habitats is improved. These species include: <i>African wild ass (Equus africanus)</i> - critically endangered <i>Plain zebra (Equus grevyi Equidae)</i> - high risk <i>African wild dog (Lycaon pictus)</i> - high risk <i>Mountain Nyala (Tragelaphus buxtoni)</i> - high risk <i>Cheetah (Acinonyx jubatus)</i> – Vulnerable <i>Lion (Panthera leo)</i> - Vulnerable <i>East African cedar (Juniperus procera)</i> - critically endangered <i>Arabica Coffee (Coffea Arabica)</i> – high risk
<u>Biodiversity not adequately covered by CRGE:</u> with the risk of CRGE investments being based on the omission of environmental costs, including the value of natural resource depletion, some activities encouraged to the detriment of the environment and natural resource base, and undermining of long term economic growth	A comprehensive CRGE that recognises conservation and sustainable use of biodiversity as a major contributor to its goal of increasing GDP, and also delivers a coherent response to biodiversity loss, and climate change with better understanding of the role, responsibilities, and interaction of institutions involved in managing the response to biodiversity loss and climate change Requisite staff capacitated and well positioned to use the results from NRA,PER and other studies regularly in their decision-making	Land use changes under PES, result in increased forest cover, reduced habitat loss and habitat degradation by 35% (<i>Baseline to be confirmed during PPG</i>)

A.2. Stakeholders. Identify key stakeholders (including civil society organizations, indigenous people, gender groups, and others as relevant) and describe how they will be engaged in project preparation:

Stakeholders	Relevant roles in the project
The Environmental Protection Authority	EPA will be the national executing agency for this project providing a national project director and ensuring quality and timely results monitoring and reporting of the project.
The Environmental Protection Bureaus of the Oromia, Harari, Somali & The Southern Nations and Nationalities Regional States	The provincial bureaus will be key stakeholders and implementers for the pilot interventions. In particular their potential roles include monitoring and evaluation of land use changes and poverty reduction and other impacts deriving from the changes. There are also target institutions for focused training.
Dilla University, Wollega University and Arba Minch University	Key provider of technical expertise on designing metrics for Payments. They will also play a big role in the monitoring component of the project.
Communities and Farmers in the afro-montane forests (including women)	Key resource users and potential sellers of ecosystem services. They will be the PES program participants tasked to implement of changes in land use patterns from contra-conservation agricultural practices to conservation compatible land uses. Direct beneficiaries of PES payments and will play a major role in local habitat conservation, and natural resource management.
NGOs and other international conservation agencies	Provide technical support to the project. They are also potential implementers of components of the project.

A.3 Risk. Indicate risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the project design (table format acceptable):

Risk	Mitigation Strategy
Development accelerates beyond the capacity of regulatory bodies	The project is putting in place decision support tools that will be able to predict this kind of scenario early enough and address it
Opportunity costs of PES are too high - The payments received are not sufficient to engender sustainable land use that is competitive against alternative incomes paid from contra conservation land uses.	Most of the evidence shows that agriculture in the target sites is mostly for subsistence. Opportunity costs are therefore expected to be low.
Effective governance/ Land tenure and property rights.	Transparency, accountability, effective revenue sharing and reward schemes will be put in place in order to ensure that funds are managed properly.
Failure to find a Buyer for the Ecosystem services	The Government is committed to buying the ecosystem services generated by the program. There are also opportunities with REDD. Ethiopia already has an approved R-Plan that is expected to attract international finance.
Institutional rigidity/Low multi-sectoral coordination:	The project will put in place champions as leaders and also support the creation of the multi-sectoral Steering Committee, whose functioning should be assessed at mid-term review, in the context of evolving governance for biodiversity and the CRGE
Risks associated with direct payments for conservation	<p>Direct payments are sometimes seen as undesirable because they require an ongoing financial commitment to maintain the link between the investment and the conservation objectives. The payments for the ES envisaged in this project will be paid by Government both national and regional from their budgets. This will ensure sustainability and continuity.</p> <p>Direct payment approaches are not “silver bullets” that can be applied immediately and easily in all situations. Broader policy interventions, such as removing perverse direct and indirect subsidies that encourage the loss of habitats and their biodiversity, clarifying Land tenure / resource rights, and strengthening Governance and enforcement need to be part of the equation. There is also need to build strong institutional frameworks both at the national and local level.</p> <p>This project will ensure that there is enabling policy and institutional environment for PES. Examples from Cambodia provide useful lessons for the project. The Cambodian bird nest protectors had weak ownership rights over breeding sites, and were initially unable to protect them in the longer term from clearance by others. However, the combination of a stronger institutional framework and payments eventually led to a greater local incentive for collective action, led to local support for and understanding of rules and regulations for protected species and land-use plans. These rules and regulations were developed locally and approved by the entire village. This ensured that biodiversity are valued not only because some entity chooses to pay for their protection, but through particular recognition of their importance, so that if payments stopped, even temporarily, degradation of biodiversity would not resume.</p>

A.4. Coordination. Outline the coordination with other relevant GEF financed and other initiatives:

The Humbo Community-based Natural Regeneration Project: This World Bank-GEF funded project is Ethiopia’s first PES project (a carbon trading initiative). The project has protected 2,728 hectares of degraded forest, and is now restoring and sustainably managing them. Following two years of consultation, planning and negotiations, a farmer-managed natural resource regeneration approach was used to restore the degraded natural forests, with village-level cooperatives subsequently managing the restored forests. Apart from local social, economic and environmental benefits, this project has also attracted a new funding stream in the form of the Clean Development Mechanism (CDM) and the local communities are also benefiting from the global market in carbon. The project got recognition and was the first project in Ethiopia (also in Africa) to receive temporary certified emission reductions. About 73,000 credits were issued, and the credits were purchased by the World Bank’s BioCarbon Fund,

which generates income for Humbo residents. This project will learn from, among other things, the PES models that were started by this project such as the farmer managed and cooperative systems and others

The Sustainable Development of the Protected Area System of Ethiopia (SDPASE): The UNDP-GEF funded project is mainstreaming the Protected Area System in the overall development context of Ethiopia, and is making the economic case for investment in protecting Ethiopia's biodiversity. The proposed project is building on the work started by SDPASE although it is making the case for investing in conservation and sustainable use of biodiversity outside of the protected areas.

Mainstreaming Agro biodiversity into the agricultural System of Ethiopia. The main objective of this UNDP-GEF funded project is to provide farming communities with incentives (policies, capacity, markets and knowledge) to mainstream conservation of agro-biodiversity, including crop wild relatives into the farming systems of Ethiopia. The proposed project is building on this work although the incentive system will be aimed at ensuring conservation and sustainable use of the biodiversity in the Afromontane forests and as such the incentives are aimed at generating uptake of biodiversity friendly land use options that enhance conservation of globally significant species.

The Sustainable Land Management programme: The Sustainable Land Management (SLM) programme was initiated by the Government of Ethiopia in collaboration with donors (e.g. World Bank, Finland, EU and Germany) and other stakeholders to reverse land degradation and improve agricultural productivity. SLM activities in Amhara, Oromiya and Tigray regions, running from 2005-14, already show: about 77,000 hectares of land have been rehabilitated; a further 79,000 hectares of forest are being maintained in accordance with participatory forest management principles; and some 50,000 households, including female-headed households, have adopted sustainable land management practices. Some of these areas are close to the target sites of the proposed project and will be a good complement to the proposed project and will offer useful lessons during project design.

The GEF UNDP project "Institutionalizing Payments for Ecosystem Services" Lessons learned from the above project have informed the design of this project. One of the key findings from the project is the need to reduce high transaction costs and look carefully at the prohibitive opportunity cost for many farmers engaging in PES projects. This project will be looking at these issues during the PPG. In particular, the project will reduce transaction costs by supporting the set up of the scheme. The project also called for government to play a key role in facilitating PES by investing in the development of designated institutions that can serve as facilitators of PES schemes, or that can fulfill the role of honest brokers. Investing in such local institutions would reduce the transaction costs of hiring international experts to do the same job. Related to this is a need for capacity-building of home-grown service providers and project developers. This project will build the capacity of program participants and all other relevant institutions. The findings also call for Governments to play a role in clarifying tenure and property rights where they are not clear and agreements must be reached on who has rights to payments for ecosystem services. Furthermore, governments should set up clear rules and guidelines for PES: what the services are, what buyers should pay for, at what price, and so on. This would reduce risks and assure interested buyers (particularly the private sector) that they are indeed getting what they are paying for. This project will also facilitate this through the proposed PES scheme.

Last but not least, most of the literature reviewed on direct payments for conservation was found in the inventories and matrix of PES projects developed by Forest Trends/Katoomba Group.

B. Description of the consistency of the project with:

B.1 National strategies and plans or reports and assessments under relevant conventions, if applicable, i.e. NAPAS, NAPs, NBSAPs, national communications, TNAs, NCSAs, NIPs, PRSPs, NPFE, Biennial Update Reports, etc.:

The project is an outcome of a comprehensive national dialogue between all relevant national, regional and local stakeholders, including NGOs, and private sector. During the NPFE, concepts were solicited from all stakeholders. The concepts are incorporated into this PIF

The project is consistent with *Ethiopia's Growth and Transformation Plan (2010-2015)* which acknowledges the environment as one of the pillars to sustainable development. Further, the project is in line with the *National Biodiversity Strategy and Action Plan* highlights the need for conservation of biological diversity outside the protected area system be integrated with strategic land use plans, local level plans and sustainable agricultural and pastoral production strategies; to ensure that park, forest and wildlife conservation and management programmes which conserve biological diversity on behalf of the country allow for a major part of any economic benefits deriving there from to be channeled to local communities affected by such programmes.

The project is also in line with the Aichi targets specifically **Target 2:** *By 2020, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems;* **Target 5:** *By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced;* and **Target 7:** *By 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.*

B.2. GEF focal area and/or fund(s) strategies, eligibility criteria and priorities:

The project aims to mainstream biodiversity conservation and sustainable use into the main national policy driver (**the CRGE**); while also ensuring production landscapes in the Afromontane forests shift to biodiversity friendly practices. The project is therefore in line **GEF Biodiversity Focal Area strategy. Objective 2; Mainstream Biodiversity Conservation and Sustainable Use into Production Landscapes, Seascapes and Sectors; Outcome 2.2: Measures to conserve and sustainably use biodiversity incorporated in policy and regulatory frameworks.**

B.3 The GEF Agency's comparative advantage for implementing this project:

UNDP has been identified as the appropriate GEF Implementing Agency by Ethiopia based on its demonstrated experience of working with the Government on a range of GEF funded biodiversity , climate change and sustainable forest management projects, which as in this project, have included components relating to integrated conservation planning and management, institutional strengthening, capacity development, and community natural resource management.

UNDP can also draw upon the lessons learned from its extensive global portfolio of past and current biodiversity, climate change, and sustainable forest management projects in Africa, Latin America, Asia and the Pacific and Europe. The UNDP Environment Unit in Ethiopia has 8 staff and a strong track record of successfully managing environmental projects in Ethiopia for UNDP.

Last but not least, UNDP is the trustee of the earmarking window of the CRGE facility. Project requests for financial resources will be channeled through this window while non-earmarked, strategic support will follow the rules of the Ministry of Finance and Economic Development of Ethiopia.

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

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S): (Please attach the [Operational Focal Point endorsement letter\(s\)](#) with this template. For SGP, use this [OFP endorsement letter](#)).

NAME	POSITION	MINISTRY	DATE (MM/dd/yyyy)
Dr Tewolde GEBRE EGZIABHER	GEF Operational Focal Point	ENVIRONMENTAL PROTECTION AUTHORITY	APRIL 3, 2013

B. GEF AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF/LDCF/SCCF/NPIF policies and procedures and meets the GEF/LDCF/SCCF/NPIF criteria for project identification and preparation.					
Agency Coordinator, Agency name	Signature	DATE (MM/dd/yyyy)	Project Contact Person	Telephone	Email Address
Adrian Dinu, UNDP-GEF Officer-in-Charge and Deputy Executive Coordinator		August 8, 2013	Alice Ruhweza, RTA, EBD	+27 12 354 8120	alice.ruhweza@undp.org