



# PROJECT IDENTIFICATION FORM (PIF)

**PROJECT TYPE: Full-sized Project**

**TYPE OF TRUST FUND: GEF Trust Fund**

## PART I: PROJECT IDENTIFICATION

Project Title:	Delivering multiple global environmental benefits through sustainable management of production landscapes		
Country(ies):	Honduras	GEF Project ID:	4590
GEF Agency(ies):	UNDP	GEF Agency Project ID:	4741
Other Executing Partner(s):	Ministry of Natural Resources and the Environment (SERNA), Tropical Agronomic Centre for Research and Teaching (CATIE), Ministry of Agriculture and Livestock (SAG)	Submission Date:	1 September 2011
GEF Focal Area (s):	Biodiversity, Land Degradation, SFM/REDD	Project Duration (Months):	48
Name of parent program (if applicable):	N/A	Agency Fee (\$):	304,545

### A. FOCAL AREA STRATEGY FRAMEWORK:

Focal Area Objectives	Expected FA Outcomes	Expected FA Outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative Co-financing (\$)
BD-2	<b>Outcome 2.1:</b> Increase in sustainably managed landscapes and seascapes that integrate biodiversity conservation.	<b>Output 1:</b> Policies and regulatory frameworks for production sectors. <b>Output 3:</b> Certified production landscapes and seascapes.	GEFTF	1,013,449	3,000,000
	<b>Outcome 2.2:</b> Measures to conserve and sustainably use biodiversity incorporated in policy and regulatory frameworks.		GEFTF	675,634	330,000
LD-3	<b>Outcome 3.1:</b> Enhanced cross-sector enabling environment for integrated landscape management	<b>Output 3.1</b> Integrated land management plans developed and implemented	GEFTF	130,444	330,000
	<b>Outcome 3.2:</b> Integrated landscape management practices adopted by local communities	<b>Output 3.2</b> INRM tools and methodologies developed and tested	GEFTF	326,110	3,000,000
	<b>Outcome 3.3:</b> Increased investments in integrated landscape management	<b>Output 3.3</b> Appropriate actions to diversify the financial resource base <b>Output 3.4</b> Information on INRM technologies and good practice guidelines disseminated	GEFTF	195,666	1,000,000
SFM/REDD-1	<b>Outcome 1.3:</b> Good management practices adopted by relevant economic actors	<b>Output 1.1.</b> Payment for ecosystem services (PES) systems established (number) <b>Output 1.3.</b> Types and quantity of services generated through SFM	GEFTF	551,879	485,000
Sub-Total				2,893,182	8,145,000
Project Management Cost			GEFTF	152,273	905,000
<b>Total Project Cost</b>				<b>3,045,455</b>	<b>9,050,000</b>

### B. PROJECT FRAMEWORK:

<b>Project Objective:</b> To mainstream biodiversity conservation, sustainable land management and carbon sequestration objectives into production landscapes and sectors in humid broadleaved and dry zone agroecosystems						
<b>Project Component</b>	<b>Grant type</b>	<b>Expected Outcomes</b>	<b>Expected Outputs</b>	<b>Trust Fund</b>	<b>Indicative Grant Amount (\$)</b>	<b>Indicative Co-financing (\$)</b>
<b>Component 1:</b> Favorable enabling conditions (policies, markets and finance) for delivering multiple global environmental benefits in managed landscapes	TA	<p>Enabling policy, institutional and market environment for delivering multiple global environmental benefits (GEBs) in production landscapes, resulting in:</p> <ul style="list-style-type: none"> <li>- A total of \$1.5 million of loans disbursed to 1,000 farmers, managing 30,000ha, subject to criteria that promote biodiversity conservation, sustainable land management and carbon sequestration and/or to permit investment in forms of production that generate such benefits</li> <li>- 20% and 15% of meat and dairy products respectively marketed from the target landscapes of the project, are subject to market-based instruments (RA and other environmental certification schemes, and sustainability commitments by retailers and exporters) that reward the generation of GEBs</li> <li>- Improvement in capacity development indicators of key institutions (SAG, SERNA, ICF, municipalities and non-governmental/private sector providers of technical and organizational support) as per the UNDP Capacity Development Scorecard, adapted for BD mainstreaming (baseline and target values to be determined during PPG phase)</li> </ul>	<p><b>Policies</b></p> <p>1.1 Permanent national multi-stakeholder negotiation forums for harmonization of production and environmental sector policies regarding BD, LD and SFM/REDD in production landscapes, in relation for example to the programmes of incentives, finance, marketing support and technical support of the Fondo Ganadero and the SAG, the conservation approaches of the SERNA within the framework of the NBSAP, and the protected area planning and management initiatives of the ICF.</p> <p><b>Markets and certification</b></p> <p>1.2 Permanent national multi-stakeholder forum(s) for dialogue on responsible production and trade of commodities (e.g. meat and dairy products) in order to generate multiple GEBs in production landscapes</p> <p>1.3 Commitments by national supermarket chains and exporters to certify, source and market meat and dairy products on the basis of environmental sustainability in order to generate GEBs in production landscapes</p> <p>1.4 National criteria for certification by RA according to Sustainable Agricultural Network (SAN) principles, that enable farmers to obtain market benefits (price premiums and secure market access) as a result of committing to the generation of GEBs in production landscapes, and take into consideration the particular characteristics of the biodiversity and natural resources in the target areas, and issues of connectivity at farm and landscape levels.</p> <p><b>Financing</b></p> <p>1.5 Loan plans from at least 5 public and private financial institutions that support forms of management of production landscapes that generate multiple GEBs</p>	GEFTF	<p><b>Total:</b> <b>578,638</b></p> <p>BD: 337,817 LD: 130,445 SFM/REDD: 110,376</p>	660,000
<b>Component 2.</b> Delivery of multiple global environmental benefits (biodiversity conservation, reduced land degradation, reduced carbon emissions and increased carbon storage) in production landscapes in the humid broadleaved forest zone (Region 1) and the dry forest agroecosystem of	TA	<ul style="list-style-type: none"> <li>- 7,500ha in <u>Region 1</u> with at least 20% increase in Environmental Service Index<sup>1</sup> values (baseline values to be determined during the PPG phase), as a result of the application of natural resource management models that maximize BD values, permit sustainable land management and protect and enhance carbon stocks</li> <li>- Conversion of 6,338ha of conventional pasture to silvopastoral systems (SPS), leading in <u>Region 1</u> to a net increase in carbon sink of 47,531tCO<sub>2</sub>eq in SPS, and avoided deforestation of 3,412ha of forest (containing 204,750tCO<sub>2</sub>eq) due to an increase in on-farm cattle carrying capacity from 0.7 to 2.1 animals/ha, and in <u>Region 2</u> to a net</li> </ul>	<p><b>Governance</b></p> <p>2.1 Permanent multi-stakeholder negotiation forums in selected deforestation frontier landscapes of <u>Region 1</u>, addressing the environmental and social implications of the expansion of farms into open-access forest land</p> <p>2.2 Municipal ordinances regarding the use of fire, establishment of riparian buffer strips, and use of windbreaks and live fences negotiated in 8 municipalities of <u>Region 2</u>, resulting in increases in tree numbers and vegetative ground cover in agroecosystem, permitting reduced soil erosion, increased rainfall infiltration, enhanced nutrient cycling and increased carbon capture.</p> <p><b>Resource management planning</b></p> <p>2.3 Natural resource management plans (covering 7,500 ha in <u>Region 1</u>) that provide</p>	GEFTF	<p><b>Region 1:</b> <b>Total:</b> <b>1,660,318</b></p> <p>BD: 1,351,266 SFM/REDD: 309,052</p> <p><b>Region 2:</b> <b>Total:</b> <b>654,226</b></p> <p>LD: 521,775 SFM/REDD: 132,451</p>	<p><b>Region 1:</b> 3,276,000</p> <p><b>Region 2:</b> Total: 4,209,000</p>

<sup>1</sup> To be adapted for Honduran conditions from the ESI applied in GEF Project 947 “Integrated Silvo-Pastoral Approaches to Ecosystem Management”

the south and southwest (Region 2)	<p>increase in carbon sink of 190,125tCO<sub>2</sub>eq in SPS, and avoided conversion of 3,169ha of fallow (containing 95,063tCO<sub>2</sub>eq) to pasture, due to an increase in on-farm cattle carrying capacity from 0.5 to 1.5 animals/ha</p> <p>20% increase in connectivity indices (on-farm and off-farm) over target areas covering 1,200 km<sup>2</sup> in <u>Region 1</u>, leading to sustained population levels of felines (e.g. <i>Panthera onca</i>)</p> <p>Market instruments (loans and certification) motivate the delivery of multiple global environmental benefits over 3,000ha of <u>Region 1</u>, in the form of: on-farm forest cover (500ha), trees in fields and pastures (2,500ha with average of 40 adult trees/ha) and soil erosion reduced by 35% (baseline values to be determined)</p> <p>10-15% increase of incomes among poor farmers managing cattle in <u>Region 2</u>.</p> <p>40% reduction in the numbers of land managers using fire in 8 target municipalities of <u>Region 2</u></p>	<p>for biological connectivity in key areas, through set asides, reforestation and/or natural regeneration.</p> <p><b>Technical and organizational support</b></p> <p>2.4 Effective, relevant and sustainable support programmes adopted by Government, NGOs and/or private sector service providers in <u>Regions 1 and 2</u>, focusing on natural resource management practices, marketing capacities, organizational capacities and compliance with SAN standards, incorporating considerations of environmental and social sustainability and well as economic viability</p> <p><b>Markets and certification</b></p> <p>2.5 Agreements/and or contracts between purchasers and farmers in <u>Region 1</u> regarding the sourcing of products (e.g. meat and dairy) produced in accordance with the generation of GEBs</p>			
<b>Sub-Total</b>				<b>2,893,182</b>	<b>8,145,000</b>
Project Management Cost			GEFTF	<b>Total:</b> 152,273 BD: 88,900 LD: 34,327 SFM/REDD: 29,046	905,000
<b>Total Project Costs</b>				<b>Total:</b> <b>3,045,455</b> BD: 1,777,982 LD: 686,548 SFM/REDD: 580,925	<b>9,050,000</b>

### 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 (\$)
GEF Agency	UNDP	Grant	1,000,000
National Government	IFAD (loans to Government)	Soft Loan	4,000,000
Bilateral Aid Agency (ies)	Government of Finland (funding for UNDP Programme Officer)	Grant	200,000
Bilateral Aid Agency (ies)	Canadian International Development Agency	Grant	1,250,000
Others	Central American Bank for Economic Integration (CABEI)	Soft Loan	1,000,000
Others	CATIE	In-kind	1,600,000
<b>Total Co-financing</b>			<b>9,050,000</b>

### D. GEF/LDCF/SCCF RESOURCES REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY

GEF Agency	Type of Trust Fund	Focal Area	Country Name/Global	Project Amount (a)	Agency Fee (b)	Total c=a+b
PNUD	GEF TF	BD	Honduras	1,777,982	177,798	1,955,780
PNUD	GEF TF	LD	Honduras	686,548	68,655	755,203
PNUD	GEF TF	SFM/REDD	Honduras	580,925	58,092	639,017
<b>Total Grant Resources</b>				<b>3,045,455</b>	<b>304,545</b>	<b>3,350,000</b>

## **PART II: PROJECT JUSTIFICATION**

### **A. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:**

#### **A.1. THE GEF FOCAL AREA STRATEGIES:**

1. The project will support the generation of multiple global environmental benefits (GEBs) in two of the country's priority ecoregions that are severely threatened by multiples pressures of local production systems. This project proposes an innovative approach to these threats by adopting multi-sector and multi-stakeholder and landscape-wide approaches that recognize the complex interactions that underlie the impacts of local production systems on GEBs. It will achieve this by removing critical barriers related to policies, markets, finance, governance, resource management planning and technical support.
2. It will contribute to Objective 2 of the BD Focal Area by promoting the mainstreaming of BD considerations into natural resource management at both sector and landscape levels. In accordance with GEF guidance, project strategies will include the removal of critical policy, finance, market, governance and knowledge barriers and the development of capacities in diverse institutions ranging from national and municipal governments to extension/finance agencies and farmer organizations. Innovative certification schemes that take into account global BD benefits will facilitate the production of BD-friendly meat and dairy products, establish training systems for farmers and resource managers, and promote the availability of the financing that farmers need to produce in a BD-friendly manner.
3. In accordance with GEF5 guidance on the LD Focal Area, it will generate GEBs in the form of improved provision of agro-ecosystem and forest ecosystem goods and services, reduced GHG emissions from agriculture, deforestation/forest degradation and increased carbon sequestration. Other benefits include reductions in the vulnerability of agro-ecosystem and forest ecosystems to climate change; as well as national benefits in the form of sustained livelihoods for people dependent on the use and management of natural resources (land, water and BD) and reduced vulnerability to impacts of climate change (CC) of people dependent on the use and management of natural resources in agricultural ecosystems. In accordance with LD Objective 3, it will focus on capacity development to improve decision-making in the management of production landscapes, to ensure maintenance of ecosystem services; reduce the impact of cattle ranching in deforestation and forest degradation; build capacities to monitor and reduce GHG emissions from natural resource management on farm and deforestation off farm; develop innovative financing mechanisms as incentives for adopting sustainable approaches to on-farm natural resource management; improve on-farm natural resource management within the vicinity of protected areas, and promote integrated watershed management.
4. In accordance with Objective 1 of the SFM/REDD Focal Area, the project will promote SFM practices, such as promoting the protection and regeneration of riparian buffer strips, live fences and dispersed trees in fields. Hydrological PES schemes will improve the management of natural resources resulting in the generation of GEBs in the form of reduction in carbon emissions, increases in carbon storage and biodiversity conservation.

#### **A.2. NATIONAL STRATEGIES AND PLANS OR REPORTS AND ASSESSMENTS UNDER RELEVANT CONVENTIONS:**

5. Honduras ratified the United Nations Convention on Biological Diversity on July 31 1995 and the United Nations Convention to Combat Desertification on June 25 1997. The Secretariat of Agriculture and Livestock has recently established a national Sustainable Ranching Programme (SRP), which prioritizes the promotion of environmentally sustainable forms of natural resource management, and with which the present project will be closely linked. The SRP and the present project are both closely in line with the National Action Plan for the Combat of Desertification (2005-2021), which identifies the causes of the limited sustainability of agricultural and ranching systems as including the extensive nature of ranching, the use of inappropriate production technologies, the inequitable distribution of land, limited production infrastructure, lack of agricultural incentives and limited market access, and prioritizes the improvement, participatory validation and scaling up of sustainable agricultural and ranching systems; and the National Biodiversity Strategy and Action Plan, which proposes the development of projects aimed at using sustainable agricultural and ranching practices to achieve an appropriate use of water and soil resources.

### **B. PROJECT OVERVIEW**

#### **B.1. DESCRIBE THE BASELINE PROJECT AND THE PROBLEM THAT IT SEEKS TO ADDRESS:**

6. Honduras has a total area of 112,492 km<sup>2</sup>. The country has a very varied and broken topography and as a result only around 13% of its area is considered to be suitable for sustainable agriculture, although in practice agriculture is practiced throughout the country even on areas with very steep slopes and shallow soils. This project will focus on two contrasting zones of the country, which have in common the fact that the global environmental values which they contain (biodiversity, production sustainability and carbon stocks) are severely affected, either directly or indirectly, by cattle ranching.
7. *Region 1, the humid broadleaved forest zone*, which receives moisture-laden trade winds, stretches along the entire north coast of the country and a number of departments in the interior and west as well, accounting for approximately 25-30% of the surface area of the country (30-35,000km<sup>2</sup>). It includes the 5,250km<sup>2</sup> Río Plátano Biosphere Reserve (RPBR), which forms part of the largest continuous expanse of tropical rainforest in Central America. Much of the forest in this zone has already been

cleared for agriculture and ranching, but the agricultural/ranching frontier is still advancing rapidly in some areas such as the buffer zone of the RPBR, as well as into a large number of other smaller forest remnants throughout the region. Other production activities in this region include the selective, and often illegal, logging of hardwood species, particularly mahogany (*Swietenia macrophylla*), and, on the adjoining coastal lowlands and valleys, commercial production of crops such as bananas, sugar cane, oil palm and pineapples. There are a number of sizeable population centers along the coast and in the inland valleys which consume water from this zone, and in addition there are a number of proposals under way to establish major hydroelectric dams in this zone.

8. The principal direct threat to the forests in this region is their conversion to cattle ranching. The clearance of smaller forest remnants within existing farms is driven in part by demand for meat and dairy products, but also by desire to assert ownership and avoid the risk of 'idle' (forested) lands being claimed by land-poor small farmers. The advance of the agricultural/ranching frontier into larger areas of forest such as the RPBR, by contrast, is principally motivated by the desire for land-grabbing, through the establishment of *de facto* ownership rights over unoccupied state-owned forest lands. Powerful land-grabbers often enlist small colonist farmers in the process of replacing forest with pasture. The small farmers actually clear the forest and sow staple grains for a short period, and the cleared land is then taken over by the land-grabbers and sown into pasture at very little cost. The results of forest clearance under these differing situations are largely similar: large areas sown with grasses such as the exotic jaraguá (*Hyparrhenia rufa*) and with very low cattle stocking rates. Typically, these pastures are virtually treeless: only in longer established ranches are they bordered by living fencelines of species such as *Gliricidia sepium* and *Erythrina fusca*.

9. The conversion of humid forest to pasture has major implications for forest-dependent BD, such as the IUCN near-threatened harpy eagle (*Harpia harpyja*) and the endangered Baird's Tapir (*Tapirus bairdii*), and on carbon stocks (tropical humid forest is estimated to contain approximately 950tCO<sub>2</sub>eq/ha). The structural and specific poverty of the pasture areas that adjoin and separate the remaining areas of forest also has impacts on more generalist species which are demanding in terms of range size and connectivity, such as the IUCN near-threatened panther (*Panthera onca*). The incursion of ranching into formerly forested landscapes also sometimes has more direct impacts on felines, as they are killed by ranchers in order to prevent them preying on cattle. Forest conversion also has major impacts in terms of land degradation as under the predominant conditions of steep slopes and high rainfall, the loss of binding root structure can greatly increase the incidence of landslides. The susceptibility of soils to these impacts is highly dependent on slope and soil water saturation. Typically, sites in Honduras with shallow slopes are managed below their carrying capacity, but steep slopes (over 50%) are managed above their carrying capacity (<200 animal units ha<sup>-1</sup> year<sup>-1</sup>).

10. In addition to these direct on-farm implications, the degradation of the production potential of pasture areas due to inadequate management constitutes a further driver of the advance of the agricultural/ranching frontier into neighbouring natural ecosystems, as farmers are obliged to open up new areas to compensate for falling productivity on their existing pastures. A further factor that contributes to climate change is the emission of methane from the digestive processes of cattle, which is directly related to the nature of their diet.

11. **Region 2, the dry forest agroecosystem**, covers most of the Pacific- (south-) facing slopes of the country (approximately 10-15% of the country or around 11-16,000km<sup>2</sup>), and, due to the rain-shadow effect of the mountains of the interior of the isthmus receive relatively little of the moisture carried by the trade winds. The landscape here is made up almost entirely of a cyclically-shifting mosaic of maize and bean fields (*milpas*), temporary pastures and fallows of varying ages, contained within farms of varying sizes. There is little or no primary forest left here and little land that is not individually owned (tenure rights are often *de facto* rather than *de jure*, but are still respected). Irrigated commercial agriculture is carried out in the valleys and coastal lowlands that adjoin this landscape. The main limiting factor on production options here is the markedly seasonal nature of the rainfall, rather than its total amount (which may range from 800mm up to as high as 2,000mm). The sowing, growing and harvesting times of the main crops of maize and beans are intimately linked to, and highly dependent on, the precise timing and intensity of the dry and wet seasons. The characteristics of the native tree species of the zone also reflect this seasonality. Most of them are deciduous, with distinctive survival mechanisms such as strong coppicing ability. In addition, many of them are leguminous and are excellent fodder species for cattle. These characteristics adapt them well to the traditional cyclical production system. The fallow vegetation is largely composed of vigorous coppice re-growth from live stumps that had remained in the fields during the cropping period, allowing rapid recovery of soil fertility. Many smallholders integrate cattle into this system as well, introducing them into the *milpas* after the harvest to eat maize residues, and then sometimes establishing temporary pastures prior to the area being allowed to return fully to fallow. This system is in principle highly sustainable, and contains large amounts of live material, even during cropping periods, in the form of live stumps and scattered trees which farmers maintain as sources of timber and posts.

12. The main threat to production and ecological sustainability and carbon content in this agroecosystem is the interruption of these traditional cyclical production systems. This may occur, for example, when cattle are managed in permanent pastures rather than being integrated into the cropping cycle, and when farmers use fire for land clearance and pasture management, which may affect the populations of native trees in the system. These threats are to a large extent driven by changes in the demographic and economic conditions of the area. For example, emigration to urban centers and other countries is reducing the

availability of labor and therefore making it more attractive for farmers to apply extensive production systems such as cattle ranching, and low-labor land clearance methods such as burning.

13. The implications of the resulting land degradation processes in the dry zone may include: a) soil compaction, by cattle’s hooves and by rainfall impact on ground lacking vegetation cover; b) sheet and gully erosion; c) the loss of carbon and volatile nutrients through burning; and d) increased susceptibility to mass movement due to the loss of supportive tree root systems. These land degradation and climate change impacts are more significant in this zone than are biodiversity concerns. At least in the case of trees, recent studies have shown that the dry forest agroecosystem of the Pacific slopes of Central America contains relatively few endemic or globally rare species (this is not necessarily the case with the isolated dry valleys of the interior of the country).

14. As well as their impacts on global environmental values (BD, land and ecosystem sustainability and carbon stocks), the processes described above in the two target regions have major social and economic implications at national level. Deforestation and forest degradation, as direct or indirect results of cattle farming, result in the loss of forest resources with major potential to sustain livelihoods and the national economy. Together with the soil compaction and loss of vegetative cover on-farm that result from grazing, they also affect hydrological processes in the water catchment areas in which most ranching is carried out: this has major implications for drinking water availability in both rural and urban populations, for the effective life of the hydroelectric schemes on which the country is becoming increasingly reliant, due to sedimentation arising from soil erosion in cattle pastures, and on the exposure of the population to the risks of mass movement and flash floods during extreme rainfall events. The dominance of the landscape by extensive cattle ranches exacerbates the already severe levels of exclusion of poor smallholders from access to land and production resources.

15. The project will build on a number of **baseline** investments. The SAG has recently established a Sustainable Ranching Programme which seeks to promote the livestock sector nationwide, in a sustainable manner, without, however, a landscape-wide or inter-sector focus. In Region 1, there are around 8 protected areas, established and managed by the ICF (with delegation in practice to NGOs) within the context of the National System of Protected Areas (SINAPH). These PAs cover some of the largest forest blocks but are at risk of biological isolation and erosion in the absence of concerted actions to manage the intervening landscapes in a coherent manner. The average annual income of the SINAPH is around \$5.5 million, however, there is major variation between years and available financial data are not broken by regions. This challenge is to some extent met by projects and programmes such as the EU project Biological Corridor of the Honduran Caribbean coast PROCORREDOR (US\$37.5 million), the Programme for Territorial Land Use Planning and Environmental Protection in the Río Plátano PROTEP, funded by KFW (US\$9.6 million), and the second phase of the IDB-funded Natural Resource Management programme MARENA, of which an estimated \$20 million will be invested in watershed management in Region 1. However, these initiatives do not adequately address the complex landscape-wide interactions that underlie the impacts of ranching and related production systems on GEBs. Baseline investments in Region 2 are principally focused on the combat of soil erosion, the protection of water sources on which local communities depend, improvements in the productivity of staple grain production and the promotion of food security among smallholders. These activities are supported by the second phase of the IDB-funded Natural Resource Management programme MARENA, of which an estimated \$20 million will be invested in the dry zone (the Gulf of Fonseca basin including the Nacaome River catchment).

16. The baseline projects are not sufficient to achieve the long-term solution of strengthening land/forest management and biodiversity conservation in the humid broadleaved zone and dry forest agroecosystem regions of Honduras in order to secure the flow of multiple ecosystems services, while ensuring ecosystem resilience to climate change. At an early stage in the development of this PIF, a scoping workshop was carried out with active participation of a wide range of stakeholders from Government, NGOs and the private sector. The participants identified the following **barriers** to the widespread adoption of sustainable natural resource management practices in these two regions of Honduras:

<p>Unfavorable enabling environment for generation of global environmental benefits through sustainable management of production landscapes</p>	<p><b>Policies:</b> At present, there is limited coordination in the development and application of production, social development and environmental sector policies, resulting in unintended perverse incentives for deforestation and land degradation. Policy issues to be addressed include the following: i) export promotion initiatives, such as “Honduras is open for business”, which may lead to the expansion of the national cattle herd, resulting in increased rates of deforestation and land degradation if provisions are not made for environmental sustainability at farm- and landscape-levels; ii) incentives in the form of subsidized inputs and credit, such as those provided by the Fondo Ganadero<sup>2</sup>, that may lead to increases in levels of unsustainable forms of land management; iii) technical support policies of the SAG and private service providers that fail to take into consideration aspects of environmental sustainability; iv) conservation policies of the SERNA and the SAG that fail to take adequately into account the relation between landscape-wide production processes and threats to GEBs.</p> <p><b>Market instruments:</b> At present, markets for meat and dairy products (principally for domestic consumption but with some destined for export) constitute major drivers for deforestation as they fail to distinguish between products</p>
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<sup>2</sup> <http://www.fondoganadero.hn.com/quienessomos.html>

	<p>originating from sustainable and unsustainable sources. There is a growing and increasingly discerning middle class in Honduras, whose food purchases come largely from a limited number of large competing supermarket chains which are vying to demonstrate environmental credentials (for example by offering degradable plastic bags and a limited range of organic vegetables). Furthermore, a large and growing proportion of the supermarket sector in Honduras is owned by large multinationals with corporate social and environmental responsibility programmes. To date, however, mechanisms are lacking to influence producer behavior by linking consumer demand for sustainable products with the needs of processors and retailers to demonstrate environmental credentials. This is related in turn to limited capacities among producers to identify and take advantage of market opportunities.</p> <p><b>Financing:</b> Limited access to favorable credit is also an obstacle to investing in this transition. A range of funding sources do exist at present, including the private banking sector, the National Bank for Agricultural Development (BANADESA), the Central American Bank for Economic Integration (CABIE) which is currently executing the GEF project Central American Markets for Biodiversity (CAMBIO), and governmental and NGO development projects that are supporting rural credit systems. Many of these sources are not specifically tailored to the needs and characteristics of cattle producers, and their loans are not subject to criteria of environmental sustainability, leading to the risk of them constituting perverse incentives for the expansion of environmentally-damaging production systems.</p>
<p>Farmers have limited awareness of, access to incentives for and capacities to apply sustainable forms of natural resource management</p>	<p><b>Governance and tenure:</b> Forest clearance is in theory controlled by the ICF, with a limited degree of decentralization to municipal governments. In practice, however, the resources of these institutions are insufficient to allow them to exercise effective control, a situation which is exacerbated, especially in the humid zone, by the personal risk that their members may face when seeking to enforce the law in certain areas. As a result, farmers in both regions are typically able to decide on their own accord how to manage the land and forests to which they have access.</p> <p>Many farmers at or close to the agricultural frontier are motivated by the utility of cattle ranching as a tool for land-grabbing on open-access forest land, and their behavior is as a consequence largely impervious to agronomic solutions, such as production intensification through silvopastoral systems, or economic incentives, such as payments for environmental services. There is in fact a risk of such strategies creating perverse incentives for the expansion of the area under pasture, if they increase farmers' access to financial capital which is then reinvested in expanding pasture areas and cattle herds. This is a viable and rational strategy, under the conditions of poorly developed governance which are typical of agricultural frontier areas and which inhibit the effective enforcement of regulations on such behavior. A number of valuable experiences of multi-stakeholder governance structures have been developed, but these have yet to be applied on a significant scale to ranching and deforestation issues at the agricultural frontier. Likewise, valuable experiences have been gained with municipal ordinances regarding the use of fire in cattle pastures, but these remain to be widely applied. These poorly developed governance conditions also constitute an obstacle to eligibility for market-based instruments such as certification.</p> <p><b>Resource management planning:</b> At present, natural resource management including the expansion of cattle ranching takes place largely on an <i>ad hoc</i> basis, with little attention to the location of areas of importance for biodiversity, connectivity and resource sustainability (with the exception of formally declared protected areas).</p> <p><b>Technical and organizational support:</b> A large amount of information has been generated and validated regarding the economic, production and environmental viability of a number of sustainable practices for on-farm natural resource management. Most farmers are unaware of these systems, or of their potential benefits. This in turn is largely due to the limited coverage and effectiveness of extension services: Government extension services have largely been withdrawn over the last few decades and the resulting gap has not as yet been adequately filled by NGOs or the private sector. At the same time, attention is largely focused on externally developed production systems, and inadequate attention is given to the social, environmental and production potential of traditional resource management systems.</p> <p><b>Markets and certification:</b> Farmers in both regions typically have limited awareness of the range of market options that are available, including those that reward environmental performance; in addition, they lack the technical capacities required to meet the requirements of such markets for environmental sustainability and quality, and the contacts and experience necessary to interact effectively with market actors.</p>

## B. 2. INCREMENTAL COST REASONING AND THE ASSOCIATED GLOBAL ENVIRONMENTAL BENEFITS:

17. The proposed solution to the environmental issues described above is the transformation of institutional relations, policy and finance mechanisms, markets, governance conditions and production systems in areas where GEBs are severely affected by cattle ranching. The project strategy seeks to take into account the relations between production and environmental sectors, reward the delivery of GEBs, recognize the landscape-wide functioning and impacts of existing resource management practices and address the negative externalities and inequities that they generate.

18. In geographic terms, the project will focus most strongly on two of the country's principal ecosystems: firstly, the humid broadleaved forest area of the north and east of the country, where the most rapid processes of deforestation and forest degradation are occurring as a result of cattle production activities; and secondly, the dry forest agroecosystem of the Pacific slopes, where natural resource management practices on farm are closely related to the livelihood support systems of poor smallholders, and where the biological, production and livelihood conditions within which such practices are carried out are most sensitive to global climate change. In the humid zone, the project will support the intensification and stabilization of on-farm production systems in order to reduce the rate of the advance of the agriculture and ranching frontier into intact habitat blocks. It will also support the establishment and protection of corridors linking intact habitat blocks, through livestock destocking and the regeneration of natural vegetation in these areas, with protected areas. In the dry south, the project will help

to combat the vicious circle of emigration, landscape-wide labor shortage, unsustainable low-labor extensive practices and ensuing landscape-wide environmental and livelihood collapse, by supporting traditional sustainable cyclical production systems.

19. The activities of the project will be structured within the following two components.

20. *Component 1. Favorable enabling conditions (policies, markets and finance) for delivering multiple global environmental benefits in managed landscapes:* Activities under this component will principally be carried out at a national level, and will focus on creating market and financial incentives for the adoption of sustainable natural resource management practices in production landscapes. The project will promote the harmonization and integration of production and environmental sector policies, and of policies related to the different focal areas (biodiversity, land degradation and climate change) relevant to the generation of multiple environmental benefits in production landscapes, through the establishment of an inter-institutional working group on these issues. It will also promote multi-stakeholder consensus on how to mainstream environmental sustainability issues into key production sectors such as cattle raising, with which major environmental impacts are associated, by supporting the establishment of one or more sector ‘platforms’ that draw on experiences of UNDP elsewhere, such as the recently-established Sustainable Pineapple Platform in Costa Rica<sup>3</sup>, whose aim is to facilitate a multi-stakeholder dialogue around the common purpose of defining and achieving a responsible model for pineapple production in that country.

21. The project will also explore market-based approaches, based on the certification of cattle products as coming from sources that comply with criteria of environmental sustainability. It will promote at national level the concept of farm certification, based on the Sustainable Agriculture Network norms and criteria for sustainable cattle ranching, using a certification scheme recently developed by CATIE and Rainforest Alliance. In addition it will seek to develop, with the principal supermarket chains in the country’s main urban centers, internal schemes for the responsible sourcing of dairy and meat products. Both of the major competing chains have placed much emphasis on their environmental credentials, and one of them, which has in recent years featured a specific section for organic vegetables, is a subsidiary of a major US chain with a well-developed corporate social and environmental responsibility programme.

22. Although it is as yet too early to be able to generate predictions of how demand for certified products such as beef, milk and leather will grow in the future, Rainforest Alliance (RA) and CATIE have already received expressions of interest from important purchasers such as Zanberg supermarket chain in the Netherlands, supermarket chains such as Walmart, restaurant chains including MacDonalds and Burger King, and a number of hotel chains within Central America itself. Companies such as Walmart, McDonalds and major meat traders are already actively engaged in efforts to promote sustainable beef production, and are members of the Global Roundtable on Sustainable Beef and/or the Brazilian roundtable. Studies conducted by CATIE and the World Bank have shown that the demand for environmental friendly or sustainable beef is increasing significantly in Europe, Japan, Norway, Sweden and the Netherlands. Marketing opportunities are further favored by the fact that Central America has just signed a free trade agreement with Europe, within which the project will promote the marketing of sustainably produced beef. Governments and multilateral agencies will also play a major role in developing demand and it is expected that governments in the EU will begin to demand responsible beef in the same way that they currently insist on certified biofuels, coffee, cocoa and tea. The experience of RA with certified coffee shows that supply and demand sides need to be developed simultaneously. The magnitude of (currently latent) demand will only become evident once certified products begin to come on stream for consumers to buy, and this progressive emergence of demand will in turn stimulate and permit further growth in supply. The experience of RA with certified coffee also suggests that future growth in certification of other products such as beef, leather and milk will not only depend on market demand and the availability of premium prices, but also to be producer-driven, given the potential of the application of SAN standards to generate on-farm benefits in the form of improved management, reduced costs and losses, and increased productivity.

23. The project will use rural finance as a tool for promoting environmental sustainability in two closely interrelated ways. Firstly, it will work with financing sources in the development of environmental criteria for loans, in order to minimize the risk of loans for the cattle sector constituting perverse incentives for the expansion of ranching into areas of natural vegetation. Secondly, it will promote the development and marketing of credit lines that are specifically aimed at enabling farmers to undertake the types of investment required to increase environmental sustainability. An example of this type of investments are mechanized choppers that will allow them to process feed from fodder banks, to be fed to animals managed in semi-enclosed conditions under “cut and carry” systems, and electric fencing that will enable farmers to rotate herds between pastures easily. GEF funds will not be used directly as a source of such finance; rather, UNDP will partner with and build capacity of financial institutions to promote lending to environmentally sustainable forms of production activities (focusing on environmental aspects in particular rather than financial issues with which the target audience is already well versed). GEF funds will also strengthen the business management and plans of small producers and cooperatives in order to improve their chances of securing loans.

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<sup>3</sup> <http://www.bananalink.org.uk/content/view/574/1/lang.en/>



24. *Component 2. Delivery of multiple global environmental benefits (biodiversity conservation, reduced land degradation, reduced carbon emissions and increased carbon storage) in production landscapes:* The project will support demonstrations of strategies for promoting sustainable forms of natural resource management, that deliver GEBs in the form of: a) enhanced on-farm BD; b) reduced rates of off-farm deforestation; c) reduced rates of LD and d) increased levels of on-farm carbon storage. It will adopt a multi-pronged, integrated approach in this regard, addressing issues of governance, spatial planning and markets as essential complements to the provision of support on agronomic aspects. The specific locations where the project will work within the two target regions will be defined during the PPG phase on the basis of analyses of the location of biodiversity hotspots, priority areas for connectivity, areas of severest ranching-related pressure on GEBs and opportunities for collaboration with local actors.

25. At the agricultural/ranching frontier, poorly developed conditions of governance and undefined tenure may make farmers ineligible for market-based instruments such as certification or “green” credit and limit their willingness to invest in intensification. Here the project, working with local partners will support processes of multi-stakeholder dialogue and conflict management in relation to the social and environmental impacts of cattle ranching. This will also provide an opportunity to pilot mechanisms for limiting the risk of production intensification acting as a perverse incentive for herd and pasture expansion at the agricultural/ranching frontier (due to increased levels of capital accumulation that may then be reinvested by farmers in cattle and pastures). Elsewhere, it will support the negotiated development of municipal regulations on environmentally damaging practices, such as the use of fire in cattle pastures, drawing lessons from the “Lempira Sur” project in the dry south-west of the country.

26. The project will help to ensure that production and other activities on cattle farms are located appropriately within the farm and the landscape, in order to maximize compatibility with land use potential and to promote ecosystem connectivity. This will be achieved, for example, by building capacities among farmers to develop farm spatial plans, and developing objective and technically-sound criteria for farm certification processes, that take into account issues of biological connectivity.

27. CATIE has accumulated a significant body of evidence indicating that the intensification of management practices, for example through the introduction of agroforestry systems and improved herd and pasture management practices, can generate attractive economic and environmental benefits for farmers by maximizing their return on land and other inputs. Data from Colombia, for example show that such systems can lead to improvements in forage production/ha, carrying capacity/ha, average daily weight gain/animal and annual meat production/ha of more than 100%, 190%, 120% and 500% respectively, while milk production can increase by around 500%, with similar levels of improvement in milk quality. The project will work with local partners to ensure that farmers receive the technical, organizational and marketing support required to allow them to realize these benefits, and to develop institutional capacities to ensure the continued provision of such support in the long term.

28. This support will further be complemented by market-based approaches, in order to maximize the attractiveness of sustainable production systems to farmers. In association where possible with Ranchers’ Associations in targeted departments of the country, the project will develop pilots to: a) apply the Sustainable Agriculture Network norms and criteria for sustainable cattle ranching, using a certification scheme recently developed by CATIE and Rainforest Alliance; b) strengthen local cheese cooperatives for the marketing of certified products; and d) assist large national dairy product companies in developing incentive schemes to pay farmers who are producing with sustainable silvopastoral practices, building on the experience of CATIE in working with Nestle.

Baseline practices and impacts	Practices and benefits expected under the GEF alternative
<b><i>Humid broadleaved forest zone:</i></b>	
Elimination of trees from pasture areas in order to reduce effects of shade on pasture growth, resulting in: <ul style="list-style-type: none"> <li>- Climate change due to reduction of in-field carbon stocks</li> <li>- Reductions in tree populations and interference with plant population dynamics</li> <li>- Reductions in the attractiveness of pastures as habitat and connectivity routes for fauna (e.g. felines)</li> </ul>	Planting and/or maintenance of dispersed trees in pastures and fencelines, resulting in: <ul style="list-style-type: none"> <li>- Improved productivity/ha of ranching due to reduced heat stress and diversified fodder sources, leading reductions in the amount of forest area that needs to be cleared to yield given levels of production or income.</li> <li>- Improved habitat and connectivity value of pastures for BD, as fauna use the trees, and especially clumps, as stepping stones between neighbouring areas of intact habitat</li> <li>- Improved gene flow and enhanced population dynamics of plant species</li> </ul>
Clearance of on-farm and off-farm forests for conversion to agriculture and ranching, resulting in: <ul style="list-style-type: none"> <li>- Climate change impacts due to reduction of on-farm forest carbon stocks</li> </ul>	Protection of set-aside areas of forest, including borders, made possible through production intensification and motivated by market and economic incentives for sustainable production, resulting in: <ul style="list-style-type: none"> <li>- Increase in carbon sink of 47,531tCO<sub>2</sub>eq, and avoided deforestation of 3,412ha<sup>4</sup> of forest (containing 204,750tCO<sub>2</sub>eq) due to an increase in on-farm cattle carrying capacity from 0.7 to 2.1 animals/ha</li> <li>- Reduced pressures on endangered fauna such as <i>Panthera onca</i> and <i>Harpia</i></li> </ul>

<sup>4</sup> Assuming that the increased on-farm stocking would avoided the clearance of forest for new pasture with an initial stocking level of 1.3 head/ha.

	<p><i>harpyja</i> due to reductions in loss of forest habitat and connectivity</p> <ul style="list-style-type: none"> <li>- Stabilized basin stream flows and reduced sediment load due to improved infiltration rates and soil cover</li> </ul> <p>Production intensification of existing cattle farms in order to maintain production capacity of pastures and limit the area under pasture, and governance safeguards in order to avoid intensification acting as a perverse incentive for pasture expansion through capital accumulation, resulting in:</p> <ul style="list-style-type: none"> <li>- Reduced pressures on endangered fauna and flora such as <i>P. onca</i> and <i>H. harpyja</i> due to reductions in loss of forest habitat and connectivity</li> <li>- Stabilized basin stream flows and reduced sediment load due to improved infiltration rates and soil cover</li> <li>- Reductions in levels of social conflict</li> </ul>
Incursion into habitat of wild felines, leading to them being hunted by ranchers to avoid cattle predation.	Zoning of cattle production, education of cattle ranchers and promotion of ecotourism in association with the Panthera NGO <sup>5</sup>
<b>Dry zone Pacific slope agroecosystem</b>	
Conversion of cyclical staple grain, pasture and fallow rotation system to permanent pastures, resulting in:	<p>Periodic rotation of cropping, pasture and fallow areas, and semi-enclosed management of cattle, with fodder banks and cut and carry systems, resulting in:</p> <ul style="list-style-type: none"> <li>- Increased populations of native tree species (trees and/or live stumps) on farm, protecting the soil against slumping and landslides, allowing soil recovery through nitrogen fixation and the recycling of below-ground nutrients, and increasing levels of above- and below-ground carbon</li> <li>- Increase in carbon sink of 190,125tCO<sub>2</sub>eq, and avoided conversion of 3,169ha of fallow (containing 95,063tCO<sub>2</sub>eq) to pasture, due to an increase in on-farm cattle carrying capacity from 0.5 to 1.5 animals/ha</li> </ul>
Burning of pasture areas to control parasites, resulting in:	<p>Pasture rotation in order to avoid pest buildup and need for burning, and municipal guidelines and regulations on burning, resulting in:</p> <ul style="list-style-type: none"> <li>- Increased ground cover, reducing soil surface crusting and erosion and facilitating infiltration</li> <li>- Water flows</li> <li>- Reduction in loss of nitrogen from cropping systems</li> <li>- Reduction in carbon emissions</li> </ul>

29. The project will generate major BD benefits in Region 1, by reducing rates of loss of habitat blocks of diverse sizes. These blocks are the RPBR, Pico Bonito and Texíguat PAs, measuring 5,250km<sup>2</sup>, 1,071km<sup>2</sup> and 160km<sup>2</sup> respectively, the proposed 725km<sup>2</sup> Botaderos PA and a large number of smaller blocks that will be quantified during the PPG phase. Additional BD benefits will come from enhancing landscape-wide connectivity (between PAs for example RPBR/Capiro-Calentura and Pico Bonito/Texíguat<sup>6</sup>, and between PAs and on-farm forests). This will benefit species across a wide range of ecosystems, such as the IUCN near-threatened harpy eagle (*Harpia harpyja*) and the endangered Baird's Tapir (*Tapirus bairdii*) that rely on tropical broadleaved forest. These off-farm, landscape-level benefits will be achieved by promoting the intensification and stabilization of cattle ranching, which will result directly in the improvement of practices over around 7,500ha (i.e. first outcome of Component 2). This will reduce the motivations for farmers to clear new areas of natural vegetation in order to maintain incomes. The benefits generated will be out of proportion to the size of the area directly affected, as the areas to be targeted will be located strategically in relation to important habitat blocks, biodiversity hotspots, priority areas for connectivity and the areas where the agricultural/ranching frontier is advancing most aggressively. The project will also generate on-farm BD benefits in Region 1, in locations that are strategically located in relation to priority habitat blocks, corridors, BD and corresponding threats) by increasing the numbers of native trees being managed in cattle pastures, thereby increasing their habitat value and facilitating connectivity for fauna and flora species. The project will also support the spatial farm planning of production activities, leading to the establishment of set-asides in the areas of the farm with highest biodiversity value and local-level connectivity function. This will particularly benefit species that are demanding in terms of range size and connectivity, such as the IUCN near-threatened panther (*Panthera onca*). The geographical location of the project's pilot sites and related investments will furthermore be determined in part by analyses (to be undertaken during the PPG phase) of where it is likely to be able to yield the greatest BD benefits.

30. In Region 2, the project will contribute to the stabilization of processes of demographic and corresponding land use change at landscape scale, by helping small farmers to maintain their traditionally sustainable cyclical field/pasture/fallow systems and thereby reducing the rates of land degradation, production and livelihood collapse, farm aggregation and emigration that are associated with unsustainable extensive production practices. On farm, the LD benefits will include the protection of the long-term production capacity of cattle farms, through the adoption of silvopastoral practices which limit the degradation of soil and

<sup>5</sup> <http://www.panthera.org/programs/jaguar/jaguar-corridor-initiative/jaguar-footprint>

<sup>6</sup> These links are of particular importance for panther conservation (<http://www.panthera.org/content/honduras-jaguar-corridor>)

vegetation resources and promote the functioning of nutrient and hydrological cycles. It has been demonstrated that the introduction of improved ranching practices can reduce soil erosion rates by around 75% (equivalent to around 35-45t/ha/year in the case of Honduras). Increases in the functional diversity and density of trees on farms will in addition help to buffer against the impacts of climate change, by increasing and stabilizing access to high quality feed in the form of tree fodder and fruits. This will improve soil health, providing a range of microclimatic conditions which will help to reduce animal heat stress and increase their productivity and promoting water infiltration, thereby helping to stabilize hydrological flows and at the same time contributing to carbon stocks.

#### **Choice of project approach:**

31. The two regions to be included in the project were selected because they share a common threat to their GEBs, in the form of cattle ranching. Region 1 was chosen because it is where the agricultural/ranching frontier is advancing most aggressively into remnant habitat blocks, posing major threats to globally important humid forest biodiversity. Region 2 was chosen because it is where land degradation, related directly and indirectly to cattle ranching, has the most severe implications for livelihood sustainability of poor farmers and for demographic stability at national and international levels. In both regions there are excellent opportunities for project activities to be delegated to and co-executed by existing NGOs and institutions, which will reduce the significance of potential concerns about project overstretch between these two geographically separated regions.

**Alternative approaches considered** but discarded as being incompatible with the multi-sector, multi-stakeholder and landscape-wide approach of the project, were:

- 1) **A focus on farm-specific, agronomic issues.** While potentially delivering short term benefits to individual farmers, this would not have addressed the landscape-wide nature of the threats to GEBs associated with local production systems such as cattle ranching, which are a function of the complex interplay of diverse biological, economic and social factors beyond the boundaries of the farm itself.
- 2) **A focus on protected areas.** In Region 1, there is a risk of PAs becoming unsustainable islands of conservation in the midst of production landscapes that become progressively less conducive to connectivity and gene flow and increasingly function as the source of threats to remaining habitat blocks, unless action is taken to address these threats at source within the production landscapes themselves. This was not an issue in Region 2, given the focus there on LD rather than BD, and the absence of significant primary forest remnants.
- 3) **Limitation to a single region:** it was decided to work in two regions given the priority accorded by the Government to addressing both BD and LD issues – there is major potential to generate BD benefits in Region 1 but not in Region 2, while Region 2 is the area of greatest concern in terms of the relation between LD and livelihood collapse, especially under conditions of climatic change.

#### **B.3. SOCIOECONOMIC BENEFITS TO BE DELIVERED BY THE PROJECT INCLUDING GENDER DIMENSIONS:**

32. The project will contribute to the long term viability of rural livelihoods by promoting stable and diverse livestock production systems, which will protect the natural capital available to farm families and buffer their incomes against climatic shocks and longer term climate change. By helping to stabilize the dynamics that link immigration, smallholder colonist farming, ranching and land grabbing at the agricultural frontier, the project will contribute to governance, security and the equity of access to land and natural resources. The economic instruments proposed will more than compensate the short term costs to farmers of the transition to sustainable forms of production, given that (as found by the trinational GEF/IBRD project in Colombia, Costa Rica and Nicaragua), in the medium to longer terms the more sustainable production systems tend to be more profitable for farmers than existing practices. Farm certification will motivate the generation of social benefits in accordance with the requirements of the Sustainable Agriculture Network norms and criteria, which cover aspects such as fair pay, adequate living conditions and safe working conditions for workers. The size of the beneficiary population of the project will be defined during the PPG phase, but it is estimated that it will include up to 1,000 farmers who will benefit from increased access to favourable finance for sustainable resource management. It is hoped that increased access to markets for dairy products, especially those that reward compliance with social and environmental norms, will result in increased access by women to opportunities for income generation, such as the production and sale of cheeses.

#### **Institutional, financial and production sustainability:**

33. The project will promote institutional sustainability by working with, and strengthening, the technical capacities of existing Governmental and non-Governmental institutions, in order that they are able to continue the provision of technical and other support in the long term. It will also work with and strengthen local institutions such as municipal governments and multi-stakeholder negotiation forums, thereby creating a solid basis of local governance that will further social sustainability. The emphasis of the project on market-based solutions and on production options that have been proven to yield concrete and significant financial benefits for farmers makes it highly probable that the resource management practices will be continued autonomously by farmers in the long term, following the withdrawal of support by the project and its partner institutions.

34. In order to promote the sustainability of farmers' participation in certification schemes, the project will encourage farmers to enter into group certification in order to reduce their certification and audit costs. The project will also bundle

incentive mechanisms, for example working with local finance and credit institutions to develop “green credit” packages so that farmers can invest in good practices and thereby maximize their chances of meeting the standards of certification, helping in this way to ensure that they receive adequate returns on their investment in certification. This grouping of farmers will also generate incidental benefits in terms of increased market influence and negotiating power.

**B.4. INDICATE RISKS, INCLUDING CLIMATE CHANGE RISKS AND MEASURES THAT ADDRESS THESE RISKS:**

Risk	Rating	Risk Mitigation Strategy
Limited clarity and commitment among key actors regarding the incorporation of environmental sustainability concerns into production systems.	Medium	Events and materials to promote awareness and involvement
Changes in relative prices for different land uses	Medium	Raising of awareness among farmers regarding the benefits of sustainable production systems that go beyond short-term sector-specific financial profitability, such as the avoidance of risk to market fluctuations and reduced exposure to environmental risks
Poorly developed tenure and governance conditions limit producers’ eligibility for PES and certification schemes, and allow uncontrolled land grabbing to continue	Low-Medium (depending on location)	Linkages with and support to negotiation and conflict-management initiatives, and coordination with land titling initiatives undertaken by the National Agrarian Institute INA. In a limited number of cases (for example land grabbers at the agricultural frontier with links to organized crime), alternative strategies, beyond the scope of the present project, may be required.
Short time horizons in decision-making by cattle ranchers, leading them to prefer unsustainable low-input production systems	Medium	Promotion of low-interest credit, demonstration of the medium-term economic benefits of sustainable ranching practices, and generation and dissemination of sustainable practices with low input requirements
Rural depopulation (driven in part by climate change-related livelihood collapse) and corresponding shortages of rural labour, together with increased availability of financial resources in the form of remittances from emigrés, motivate extensive forms of cattle production	Medium	Development and promotion of low labour-requirement livestock production systems with financial input requirements tailored to the conditions of farm families, determined through processes of participatory appraisal and farmer field schools.

**B.5. KEY STAKEHOLDERS INVOLVED IN THE PROJECT:**

Stakeholders	Project Implementation Role
Ministry of Natural Resources and the Environment (SERNA)	Provision of guidance to ensure compliance of the project with national policies and strategy documents on biodiversity and land degradation.
Ministry of Agriculture and Livestock (SAG)	Executor of the National Livestock Programme, which will constitute the project baseline and provide part of its cofinancing. Recipient/joint developer or technological recommendations developed by the project and channel for their dissemination to producers. Channel for recommendations of modifications on policies and strategies in the livestock sector.
Tropical Agronomic Centre for Research and Teaching (CATIE)	Executor of the project in collaboration with SERNA and SAG, providing technical inputs, generating and systematizing lessons, developing and applying the project monitoring and evaluation system and coordinating the activities of field level co-executors.
Local and international development and conservation NGOs (e.g. Fundación Pantera, Heifer Project)	Local co-executors of project activities at field level, with existing structures, capacities and experiences on which the project will build in order to maximize its geographical coverage, impact, acceptance and cost-effectiveness
National Federation of Ranching Associations (FENAGH) and member associations at department level	Target group for technical recommendations generated by the project, channeling them to their members at departmental and local levels. Joint executors of pilot experiences of market incentive schemes such as farm certification and PES.
Farmers	Recipients of project recommendations and participants in the development, validation and systematization of management practices and impact monitoring.

**B.6. OUTLINE THE COORDINATION WITH OTHER RELATED INITIATIVES:**

35. The project will be closely linked to the Government’s Sustainable Ranching Programme, providing it with lessons and models regarding the inclusion of landscape-wide, multi-sector approaches to complement its on-farm focus. Collaboration with the SRP will include joint planning of the location of target farms and municipalities, joint monitoring, and the systematization and interchange of lessons. It will in addition collaborate with the PROCORREDOR, PROTEP and MARENA programmes, for example in identifying sustainable production initiatives that warrant their support and the defining the spatial location of their investments, in relation to conservation priorities and threats.

36. There will be close communication and regular interchanges of experiences and lessons with GEF/IBRD project 3574 “Mainstreaming Biodiversity in Sustainable Cattle Ranching” in Colombia. The project will build upon the solid base of multi-stakeholder negotiation developed by GEF/UNDP project “Promoting Integrated Ecosystem and Natural Resource Management” at the humid zone agricultural/ranching frontier. There will also be collaboration with GEF/UNDP project

“SFM: Mainstreaming Biodiversity Conservation into the Management of Pine-Oak Forests” in developing approaches to addressing the implications of grazing and pasture fires for the management of pine-oak forests.

37. The project will build on and complement the advances of Rainforest Alliance (with USAID support) in the development of markets for sustainable beef and milk products. The existence of that initiative reduces the level of funding that this project needs to assign to demand-side issues. In addition, CATIE is currently working on a number of complementary projects with Rainforest Alliance, for example to study levels of demand for sustainably produced beef and milk and to establish a baseline of farms and estimate investment costs. Complementing those initiatives, the present project will use GEF and local resources to work with local private partners (including Regional Milk Refrigeration Centers, companies such as Land of Lakes and the Leyde milk company, and beef exporters) to target the creation of demand and to develop incentives for promoting certified sustainable livestock products.

**C. DESCRIBE THE GEF AGENCY’S COMPARATIVE ADVANTAGE TO IMPLEMENT THIS PROJECT:**

38. The approach adopted by the project is in line with UNDP comparative advantage, as it addresses multiple sectors (livestock, agriculture and to a lesser degree forestry) and the environment sector, with a landscape-wide perspective. The project corresponds to the particular focus of UNDP as development organization: UNDP focuses on mainstreaming BD across multiple sectors at the landscape level, building capacities in national institutions (on issues such as governance, markets and finance) and addressing market issues, all of which are key elements of this initiative.

39. Since 2005 UNDP has implemented 45 projects in the Mainstreaming Strategic Programme (SP2) of the agency’s BD portfolio, which have addressed a total of 18 production sectors. These projects cover around 382 million ha worldwide, of which 8.4 million are found in the Latin American and Caribbean region. These projects have addressed, in common with this project, barriers related to policy frameworks, institutional capacities, planning instruments, markets, organizational development and technical capacities among producers. Furthermore, “mainstreaming environment and energy in MDG-based policy and planning frameworks at the national level” is one of the four key results of the Strategic Priority on Environment and Sustainable Development, agreed in UNDP’s Strategic Plan for 2008–2011.

**C.1. INDICATE THE CO-FINANCING AMOUNT THE GEF AGENCY IS BRINGING TO THE PROJECT:**

40. UNDP is committing US\$1 million of co-financing to the project. In addition, UNDP has been instrumental in generating and managing around \$4 million of IFAD loans to the Government which include support to sustainable forms of natural resource management.

**C.2. HOW DOES THE PROJECT FIT INTO THE GEF AGENCY’S PROGRAM AND STAFF CAPACITY IN THE COUNTRY TO FOLLOW UP PROJECT IMPLEMENTATION:**

41. The emphasis of the project corresponds closely with the following Honduras UNDAF Outcome: “Government, private sector and local communities adopt good practices for the management of ecosystems, mitigation of and adaptation to climate change for the preservation of natural capital, the reduction of economic losses and the generation of employment opportunities for the most vulnerable sectors of the population”. The Country Programme Document proposes that UNDP will, “at local level, support sustainable economic territorial development, promoting the adoption of good practices that remove barriers to equitable access to the benefits of natural resources, with active participation by municipal governments, the private sector and academia” and its outputs include “producers trained for business organization and access to marketing channels” and “sustainable natural resource management plans formulated at community level.”

42. The Honduras Country Office has specific experience of relevance to this project, for example in relation to conflict management and mediation between stakeholders (in agricultural frontier areas of the Sico Paulaya valley and the Moskitia through GEF projects 1047 and 3592), and watershed and natural resource management in the dry zone agroecosystem and humid zone agricultural frontier (through project 1047); and in addition has close and productive relations with high level policy makers in all of the sector ministries involved in this project.


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

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

NAME	POSITION	MINISTRY	DATE (MM/dd/yyyy)
Irena Helena Pineda	Director for External Cooperation and Resource Mobilization, GEF OFP	Environment and Natural Resources	August 11, 2011

**B. GEF AGENCY(IES) CERTIFICATION**

**This request has been prepared in accordance with GEF/LDCF/SCCF policies and procedures and meets the GEF/LDCF/SCCF criteria for project identification and preparation.**

<b>Agency Coordinator, Agency name</b>	<b>Signature</b>	<b>Date (MM/DD/YYYY)</b>	<b>Project Contact Person</b>	<b>Telephone</b>	<b>Email Address</b>
Yannick Glemarec, UNDP/GEF Executive Coordinator		September 1, 2011	Santiago Carrizosa, Regional Technical Advisor, EBD	+507 302-4510	<a href="mailto:Santiago.carrizosa@undp.org">Santiago.carrizosa@undp.org</a>