



# REQUEST FOR CEO ENDORSEMENT

**PROJECT TYPE: Full-sized Project**

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

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## **PART I: PROJECT INFORMATION**

Project Title: Sustainable Land Use Management in the Semiarid Region of Northeast Brazil (Sergipe)			
Country:	Brazil	GEF Project ID:	5276
GEF Agency:	UNDP	GEF Agency Project ID:	3066
Other Executing Partner:	Brazil Ministry of Environment (MMA) and Sergipe State Secretariat of Environment and Water Resources (SEMARH)	Submission Date:	October 3, 2014
GEF Focal Area:	Land Degradation	Project Duration(Months)	60
Name of Parent Program :	N/A	Project Agency Fee (\$):	362,443

## **A. FOCAL AREA STRATEGY FRAMEWORK**

Focal Area Objectives	Expected FA Outcomes	Expected FA Outputs	Trust Fund	Grant Amount (\$)	Co-financing (\$)
CD-1 LD-1	Outcome 1.2: Improved rangelands/livestock management Outcome 1.3: Sustained flow of services in agro-ecosystems	1.2 Types of innovative SL/WM introduced at the field level 1.3 Suitable SL/WM interventions to increase vegetative cover in agro-ecosystems	GEF TF	1,634,628	11,652,785
CD-1 LD-3	Outcome 3.1: Cross-sectoral enabling environment for integrated landscape management (in support of SLM) Outcome 3.2: Integrated landscape management adopted by local communities	3.1 Integrated land management plans developed and implemented 3.2 INRM tools and methodologies developed and tested 3.3 Appropriate actions to diversify financial resource base 3.4 Information on INRM technologies and good practices disseminated	GEF TF	1,998,889	4,732,472
Sub-total				3,633,517	16,385,257
Project Management Cost				181,675	947,759
<b>Total project costs</b>				<b>3,815,192</b>	<b>17,333,016</b>

## **B. PROJECT FRAMEWORK**

**Project Objective:** Strengthening SLM frameworks to combat land degradation processes in the semi-arid region of Sergipe State in the NE of Brazil

Project Component	Grant Type	Expected Outcomes	Expected Outputs	GEF (\$)	Co-Finance (\$)
Governance framework strengthened to avoid, reduce and revert land degradation in the State of Sergipe.	TA	Strengthened governance framework contributes to reducing land degradation <i>processes</i> over the 14,804 km <sup>2</sup> of Sergipe state territory (75%) <i>susceptible to desertification-ASD</i> -measured by : - Area (ha) of rural properties in which recommended SLM practices are implemented in Sergipe ( <i>see table 1</i> )	<b>1.1 Sergipe State-level policy and planning framework supports integrated SLM in ASDs (focus on Alto Sertao (3,615km<sup>2</sup>))</b> <ul style="list-style-type: none"> <li>State Program for Combating Desertification PAE-SE) expanded and updated (e.g., completed baseline LD measurements; detailed procedures &amp; institutional and sector roles for implementation; expected climate change scenarios and related adaptation strategies; estimated funding needs)</li> <li>Municipal Programs (7) for Combatting Desertification (PAM) in Alto Sertao (most extreme degradation and ASD)</li> <li>Cross-sector and inter-institutional mechanisms for institutional coordination and incorporation of SLM practices in baseline investment in the state</li> </ul>	1,634,628	4,647,770

		<ul style="list-style-type: none"> <li>- Improved norms and directives on SLM at State level- revised PAE and 07 MAPs at the SE-ASDs with operational plans and budget.</li> <li>- % of compliance with rural licensing processes in 2 Alto Sertao municipalities</li> <li>- Increased in capacity of SEMARH and key municipalities in Alto Sertao</li> </ul> <p>This results, together with the SLM practices in Outcome 2 leads to reduced deforestation and LD and local benefits measured by :</p> <ul style="list-style-type: none"> <li>- Average tree density in forest patches &lt; 50 ha. increases to &gt;1,500 tree/ha from baseline of &lt; 800/ha</li> <li>- Reduced deforestation rate in SE-ASD to 0.14% /yr. (48 municipalities)</li> </ul> <p>1.</p> <ul style="list-style-type: none"> <li>- Production of small-scale farms crops for the four field sites increases 30%</li> </ul>	<p>ASD (strengthening of State Commission for Combatting Desertification and link state pluri-annual planning and budget allocation to PAE-SE).</p> <p><b>1.2. State land-use licensing processes stimulate appropriate measures to reduce LD.</b></p> <ul style="list-style-type: none"> <li>• Institutional strengthening of the State and municipalities environmental agencies for promoting SLM in licensing processes for agriculture and livestock initiatives and forest management activities. This includes training on the use of new environmental registration tools (CAR/PRA) and technical support to the environmental regularization of rural properties in the Alto Sertao focusing on field sites (agrarian reforms settlements).</li> <li>• Proposal for State norms to overcome bottlenecks in licencing processes and in the implementation of PAR/CAR</li> </ul> <p><b>1.3 Monitoring land use optimized for SLM implementation in ASD</b></p> <ul style="list-style-type: none"> <li>• Implementation of an Early Warning System (SAP) to predict droughts and LD vulnerabilities in the State based on the existing national tool updated to link regional planning and LD monitoring to local needs</li> <li>• SAP response mechanisms strengthened with LD drivers monitored in Alto Sertao field sites along with the impacts of SLM practices.</li> <li>• Approved Integrated Management Plans (SFM/SLM) including fire control in field sites</li> </ul> <p><b>1.4 Knowledge management and national-level governance framework strengthened to increase adoption of SLM in Sergipe and facilitate replication in NE</b></p> <ul style="list-style-type: none"> <li>• Norms and technical directives to prevent, reduce and mitigate LD for Caatinga ecosystems and degradation levels in NE region are developed through the National Commission for Combating Desertification &amp; National Environment Council CONAMA</li> <li>• Communication programmes on SLM for public institutions and broader public (scientific and newspapers articles; manuals</li> <li>• Semi-arid SLM/SFM knowledge management networking (linked to SAP/LD monitoring and communication products) and including the Inter-ministerial Desertification network</li> </ul>		
Uptake of SLM practices increased in Sergipe's priority Areas Susceptible to Desertification (ASD)	TA & Inv	<p>Strengthened extension services, availability of best practice models and financing increases SLM adoption in Sergipe and reduces land degradation in the Alto Sertão as measured by:</p> <ul style="list-style-type: none"> <li>- Number of farming</li> </ul>	<p><b>2.1 SLM best practices in selected Alto Sertao landscapes provides guidance for licensing that reverts LD processes</b></p> <ul style="list-style-type: none"> <li>• In areas of moderate LD : Soil erosion control techniques (e.g., dry farming, mulching, zero tillage, diversification of crops, improved livestock and range control including control of pests for livestock and pasture management);</li> <li>• In areas of accentuated soil LD, reduction of soil salinization from irrigation with water management practices (e.g., water harvesting, drip</li> </ul>	1,998,889	11,737,486

	<p>households implementing sustainable subsistence and commercial agricultural practices, improved grazing systems and integrated SLM practices in SAS (2,000)</p> <ul style="list-style-type: none"> <li>- 100% of extensionists active in SAS deliver targeted support to ~ 13,500 rural holdings includes recommended SLM directives</li> <li>- 20 % increase in investment in SLM practices in Sergipe</li> </ul> <p>This results in a 25% reduction of land degradation over 8,000 ha in 04 field sites :</p> <p>(i) soil loss caused by water erosion &lt; 5 t/ha;  (ii) loss of soil carbon &lt; 2 t/ha  (figures to be confirmed when specific areas for SLM are finalised in the 4 preselected landscapes)</p>	<p>irrigation);</p> <ul style="list-style-type: none"> <li>• In areas of severe LD, restoration of legal reserves and alternative production (e.g., honey production)</li> </ul> <p><b>2.2 State extension services incorporate SLM guidelines for ASDs and provide targeted support to SAS</b></p> <ul style="list-style-type: none"> <li>• Training programs provided on SLM practices for sustainable subsistence and commercial agriculture, irrigation projects, livestock rearing and SFM. Development of rural extension plan for Sergipe to promote joint action on SLM by MDS, MDA with the IFAD Dom Tavora project</li> </ul> <p><b>2.3. State-level and national access to diverse funds improved for uptake of SLM in ASDs</b></p> <ul style="list-style-type: none"> <li>• Guidelines to include SLM in social programmes such as Brasil sem Miséria;</li> <li>• Facilitate access to financial instruments including through a funding advisory facility to assist deal flows for SLM and strengthening local capacities (civil society and smallholder farmer leaders) in project proposal formulation and public officers in project review skills</li> <li>• Training and awareness programmes for bank credit agents (national, regional and state-level banks to facilitate credit for SLM to civil society organizations and local</li> <li>• Review of fiscal and markets based incentives such as distribution of State ICMS (value added tax) to municipalities that combat LD.</li> </ul>		
Sub-total			3,633,517	16,385,257
Project management Cost:			181,675	947,759
<b>Total project costs</b>			<b>3,815,192</b>	<b>17,333,016</b>

### C. SOURCES OF CONFIRMED CO-FINANCING FOR THE PROJECT BY SOURCE AND BY NAME (\$)

Sources of Co-financing	Name of Co-financier (source)	Type of Cofinancing	Cofinancing Amount (\$)
NGO	AGENDHA	Cash	90,457
Private Sector	BANESE	Soft Loans	452,284
Private Sector	BNB	Soft Loans	1,809,136
NGO	CFAC	Cash	1,944,821
Sergipe State Government	EMDAGRO	Cash	904,569
Federal Government	INCRA	Cash	2,035,278
Sergipe State Government	ADEMA	Cash	271,370
NGO	F. Araripe	Cash	90,456
Federal Government	IBAMA	Cash	1,673,451
Sergipe State Government	SEMARH	Cash	2,035,278
Private Sector	CEPIS	Cash	162,822
Federal Government	MMA/DCD	Cash	1,130,710
Federal Government	INSA	Cash	678,426
Federal Government	MMA	Cash	2,397,106
Sergipe State Government	SEDETEC	Cash	1,356,852
GEF Agency	UNDP	Cash	300,000
<b>Total Co-financing</b>			<b>17,333,016</b>

**D. TRUST FUND RESOURCES REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY NA**

GEF Agency	Type of Trust Fund	Focal Area	Country Name/ Global	(in \$)		
				Grant Amount (a)	Agency Fee (b)	Total c=a+b
UNDP	GEF IF	LD	Brazil	3,815,192	362,443	4,177,635
<b>Total Grant Resources</b>				3,815,192	362,443	4,177,635

**F. CONSULTANTS WORKING FOR TECHNICAL ASSISTANCE COMPONENTS:**

Component	Grant Amount (\$)	Cofinancing (\$)	Project Total (\$)
International Consultants	50,000	0	50,000
National/Local Consultants	786,181	3,569,261	4,355,442

<b>G. DOES THE PROJECT INCLUDE A “NON-GRANT” INSTRUMENT?</b> No
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**PART II: PROJECT JUSTIFICATION****A. DESCRIBE ANY CHANGES IN ALIGNMENT WITH THE PROJECT DESIGN OF ORIGINAL PIF**

**A.1 National strategies and plans or reports and assessments under relevant conventions:** National strategies and plans are still aligned with the Project

**A.2. GEF focal area and/or fund strategies, eligibility criteria and priorities.** Alignment with GEF focal area remains the same

**A.3 The GEF Agency’s comparative advantage:** UNDP comparative advantage remains the same

**A.4. The baseline project and the problem that it seeks to address**

1. The baseline project and problem remain the same. Brazil’s semiarid and dry sub-humid areas are considered Areas Susceptible to Desertification (ASD). These correspond closely to the Caatinga biome, occupy an area of 1.34 million km<sup>2</sup> and are home to 17% of Brazil’s population over 11 states, nine of which are in the Northeast (NE). The region has the world’s greatest concentration of population in semiarid areas and houses 85% of Brazil’s poor. The NE Brazil has always been subject to periodic drought. The main anthropogenic drivers of land degradation (LD) in the NE-ASD are deforestation, driven principally by large and small scale agriculture, and the use of unsustainable farming and ranching practices. This is exacerbated by climate change- the NE of Brazil being the most vulnerable in South America according to IPCC scenario. This project is focused on the state of Sergipe, which has 75% classified as ASD and represents on a workable scale the issues facing Brazil’s other ASDs. Within Sergipe it will focus on the Alto Sertao- the ASD with most severe land degradation where most of Sergipe’s remaining Caatinga vegetation is located. In line with Brazil’s drive to promote sustainable socio-economic growth to reduce extreme poverty, Sergipe has taken steps to address low human development indices and is increasingly aware of the links between these and LD. This includes the development of State Action Plan to Combat Desertification and Mitigation of the Effects of Drought - Sergipe (PAE-SE) identifying priority actions and an initial mapping for funding through existing and planned sector programs that incorporate some elements needed to address LD. These and more recently planned investments constitute a baseline for the proposed project estimated at US\$121.5 million. Despite an extensive baseline there is a risk that sector actions will be fragmented, will following a unisectoral vision and will not be optimized for addressing the increasing LD resulting in loss of ecosystem services and worsening of socio-economic parameters. The two main barriers are: 1) limited existing governance framework to promote SLM in Sergipe and 2) uptake of SLM in Sergipe impeded by capacity and funding issues. The project has been designed to address these two main barriers and is detailed in the UNDP Prodoc sections Project rationale and design options.

#### A. 5. Incremental /Additional cost reasoning:

2. The incremental reasoning of the project and its Objective, Outcomes and Outputs of the project remain unchanged with some minor adjustments at output level. This project will address land degradation (LD) in the state of the Sergipe in the Brazilian Northeast with a view to scaling up to the entire Semi-arid region. The project is designed to optimize and coordinate baseline programs to engender a shift from unsustainable to sustainable land management, arresting land degradation in a state where c75% of land is susceptible to desertification and only 13% the original Caatinga vegetation remains. It will strengthen the state environmental governance framework to better address the main drivers of land degradation and desertification, focusing primarily on the escalating conflict of land uses and unsustainable agriculture practices where LD is causing soil erosion, soil nutrient depletion, damaging hydrological system integrity and undermining ecosystem services. Key elements that will be strengthened include land use planning and appropriate environmental licensing and oversight to avoid, reduce and mitigate LD. Through strengthened institutional and smallholder capacities and facilitation of access to funding, uptake of SLM practices will be increased and on-the-ground actions will be tried and tested in the Alto Sertao Sergipe (SAS), where LD is highest. This territory is a state priority and is targeted nationally in a program to reduce hunger and poverty. By reducing LD and maintaining vital ecosystem services, the project will improve livelihoods in an area with high poverty and social hardship, particularly in agrarian reform settlements. Strategic action at the national level through the Department to Combat Desertification in the Ministry of Environment's Secretariat of Extraction and Sustainable Rural Development and the National Commission for Combating Desertification will enable this state's SLM governance model to be disseminated to other states, thereby facilitating replication across the entire Brazilian Semi-arid region and evoking further global environmental benefits the middle and long term. The Table 12 Prodoc indicates their associated expected global benefits and Table 13 indicates the current practices; alternatives to be put in place by the project and global benefits.

3. Based on the PPG studies a few minor changes have been made on how best to deliver the envisaged outputs. Under Outcome 1 these include

- Output 1.1 *Sergipe's state policy and planning framework supports integration of SLM in ASD:* a new emphasis has been placed on developing municipal action plans for combatting desertification in line with Brazil decentralization process; to facilitate the implementation of environmental registration and licensing of rural properties processes and to ensure alignment with budgetary processes.
- Output 1.2 *State land use licensing processes stimulate appropriate measures to reduce LD:* The implementation of the environmental registrar and programmes has been delayed national wide (CAR/PRA). At the State level the project will thus focus on removing bottlenecks in the current licensing processes to ensure integration of different institutions into processes. It will focus technical assistance on implementing the CAR/PRA in the field sites that have been selected for on the ground work. This will be feasible in the time frame of the project and will provide specific lessons for improving implementation State wide in the future.
- Output 1.3 *Monitoring land use optimized for SLM implementation.* Given the delays in the CAR(PRA) and the needs to improve licencing processes the emphasis has shifted slightly from improved enforcement of land use to a system that would enable the linking of licencing processes, vulnerability to drought and the lessons learnt from SLM field application in outcome 2. Thus the project will develop and apply the existing national Early Warning System (SAP) for drought and desertification vulnerability to Sergipe updating information on the drivers of LD and on SLM practices. This will draw from monitoring focusing on the field sites in Outcome 2. The SAP will enable linking regional planning to local needs and will serve in the future for adjusting licencing processes including the CAR/PRA tools.

4. Under Outcome 2 the PIF Outputs 2.3 and 2.4 have been joined. Both dealt with financial mechanisms one at the State level and one at the National level. As many of the financial mechanisms have both National and State level procedures and processes the division was considered to be artificial and joining them together would facilitate increased coordination between the two levels.

5. The PPG phase enabled the detailing of the different levels of action to be included in the project and for each output. Interventions will occur at the National; sub-national (NE region); State (Sergipe); sub-state (Alto Sertao- 7 municipalities) and sub Alto Sertao (2 municipalities with field work in 4 landscapes). Through the improvement of public policies and governance in Sergipe for SLM uptake at scale, and increased financing and know how, the collective indirect impact of the project over time will still be the ASD in Sergipe (now calculated at 14,804 km<sup>2</sup> instead of the 10,982km<sup>2</sup> at the PIF stage. Nonetheless the scale of *direct* impact of the different interventions has now been defined more clearly and is shown below in Table 1 below. Based on this, and also on more in depth consultations and review of information available in selected landscapes there have also been some adjustments made to the indicators that will be used to measure different Outcomes particularly those related to the measurement of reduced land degradation. These are included in the logical framework matrix in annex.

**Table 1 Levels of direct and indirect impact (replication) of project outputs**

<b>Outcomes and Outputs</b>	<b>Levels of Direct Impact</b>	<b>Level of Indirect Impact</b>
<b>OUTCOME 1: Governance framework strengthened to avoid, reduce and revert land degradation in Sergipe state</b>		
<b>Output 1.1.</b> Sergipe's state policy and planning framework supports integration of SLM in ASD	<ul style="list-style-type: none"> <li>Alto Sertao 7 municipalities 361,451 ha – rural area) (PAMs)</li> <li>Sergipe State ASD (strengthened PAP) covering 75% of State and 1,480,413 ha</li> </ul>	<ul style="list-style-type: none"> <li>End/post project ASD in semi-arid NE Brazil 111,079,903 ha)</li> </ul>
<b>Output 1.2.</b> State land use licensing processes stimulate appropriate measures to reduce LD	<ul style="list-style-type: none"> <li>03 Agrarian Settlement and 01 Community in Alto Sertao (22,943 ha)</li> <li>Improved licensing and CAR implementation in Alto Sertao 7 municipalities</li> </ul>	<ul style="list-style-type: none"> <li>Sergipe State ASD 1,480,413 ha (rural area)</li> <li>ASD (111,079,903 ha, including Sergipe ASD – rural areas)</li> </ul>
<b>Output 1.3.</b> Monitoring land use optimized for SLM implementation	<ul style="list-style-type: none"> <li>Early warning system in Alto Sertao 7 municipalities (361,451ha)</li> <li>Drivers of LD in 03 Agrarian Settlements and 01 community (field sites) in the Alto Sertao (22,943 ha)</li> <li>LD state measured in 03 Agrarian Settlements and in the Alto Sertao and lands of at least 1 community (22,943 ha)</li> <li>Integrated management areas (SLM/SFM) with management plans elaborated and approved by environmental authority (8,000ha).</li> </ul>	<ul style="list-style-type: none"> <li>Sergipe State ASD (1,480,413 ha)</li> <li>ASD (111,079,903 ha, including Sergipe ASD – rural areas)</li> </ul>
<b>Output 1.4.</b> Supportive knowledge management and national-level governance framework increases adoption of SLM in Sergipe and facilitates replication in NE	<ul style="list-style-type: none"> <li>Sergipe State ASD (1,480,413 ha)</li> <li>ASD (111,079,903 ha, including Sergipe ASD – rural areas)</li> </ul>	<ul style="list-style-type: none"> <li>Brazil (329,941,393ha – rural areas)</li> <li>Global</li> </ul>
<b>OUTCOME 2: Uptake of SLM increased in Sergipe ASDs</b>		
<b>Output 2.1.</b> SLM best practices implemented in Alto Sertão provide guidance for licensing process to revert LD processes	<ul style="list-style-type: none"> <li>Field implementation 3 agrarian settlements and one community 8,000 ha (~35%)</li> <li>13,566 Rural Establishments &lt;100ha in the Alto Sertao (201,491ha)</li> </ul>	<ul style="list-style-type: none"> <li>Alto Sertao ASD (361,451ha)</li> <li>Sergipe State ASD (1,480,413 ha)</li> <li>ASD</li> </ul>
<b>Output 2.2.</b> State extension services incorporate SLM guidelines for ASDs and provide targeted support to the Alto Sertão	<ul style="list-style-type: none"> <li>13,566 Rural Establishments &lt;100ha in the Alto Sertao (201,491ha), agrarian settlements in particular.</li> <li>Sergipe Alto Sertao (361,451ha)</li> </ul>	<ul style="list-style-type: none"> <li>Sergipe State ASD (1,480,413 ha)</li> </ul>
<b>Output 2.3.</b> State and national access to diverse funds improved for uptake of SLM in ASDs	<ul style="list-style-type: none"> <li>Sergipe Alto Sertao (361,451ha)</li> </ul>	<ul style="list-style-type: none"> <li>Sergipe State ASD 1,480,413 ha (rural area)</li> <li>ASD (111,079,903 ha, including Sergipe ASD – rural areas)</li> </ul>

## A.6 Risks that might prevent the project objectives from being achieved, measures that address these risks:

6. Mitigation actions for identified risks have been further detailed and the additional risk of political changes at the different levels and time scale for measuring the final benefits of SLM practices take time have been added along with respective mitigation measures. See table 2 below.

Risk	Rating	Mitigation
SLM practices take time to provide tangible and targeted beneficiaries may be reluctant to change non-suitable land use activities and practices	Low	The direct intervention sites were pre-selected through meetings with all stakeholders to guarantee the commitment of all beneficiaries of rural settlements and local communities. The project will also work in cooperation with community leaderships (including youngsters and women), associations, cooperatives and extension workers promoting the empowerment and schooling of entire community/settlement. The achievement of project outputs especially 1.3, 2.1 and 2.2, depends on a strong training and communication and this has been built into the implementation strategy. The SLM to be promoted is based on practices in similar semiarid spaces in Brazilian ASD that proved economic feasibility. These will be adapted to the environmental conditions of Sergipe ASD at scale. The <b>sensitivity</b> assessment that will be undertaken during the project will elucidate the SLM socioeconomic and environment benefits, encouraging the communities to support the project implementation and the maintenance of activities in long-term (after the end of the project).
With Sergipe's growing economy and severity of LD, increased pressures on land will overwhelm state-level licensing and oversight capacity	Medium	The development of Ecological and Economic Zoning (EEZ) including LD considerations will establish the framework for permissible and recommended activities in ASD, in line with the differing levels of land degradation. Together with the strengthening of inter-sectoral mechanisms to promote coordination action, this will allow the adoption of an integrated approach to reduce land use conflicts and manage pressures. The project will also focus on strengthening state-level licensing and oversight capacities and environmental and social safeguards defined for land use so as to reduce LD in ASD.
Insufficient buy-in from relevant agencies undermines the ability to mainstream SLM in baseline programs and to channel resources to Sergipe	Low	The Brazilian government is strongly committed to poverty reduction and has recognized the link between poverty and LD. Furthermore, the state of Sergipe is fully supportive of all proposed project elements. The specific manner in which funds will be allocated to Sergipe from large baseline programs has not yet been determined and Sergipe therefore has the opportunity to influence this process to ensure that SLM considerations are taken into account and that LD is targeted.
Impacts of climate change exacerbate land degradation and increase pressures on remaining soil and forest resources	Low/ Medium	Climate change is expected to lead to serious consequences in the region that are already beginning to be felt, such as longer, drier and hotter dry seasons and more frequent and less predictable drought events. IPCC predicts increased temperature and evaporation, more extreme events and loss in nutritional value of food crops. The project will identify and promote the implementation of SLM practices and species that are adapted to a changing climate and will therefore help to reduce the vulnerability of farmers to climate change, increasing productivity, diversity and resilience. In addition, an important part of the project involves increasing learning and information exchange on semiarid production systems, including the expected impacts of climate change (higher temperature, lower precipitation, more evaporation) on such systems and existing practices that have produced positive results in this context and could be replicated.
State and Presidential Elections resulting in political changes at the different levels may compromise project implementation schedules and arrangements	Low/ Medium	The project will work at four different levels: national, state, regional and local levels. The project will work to mobilize continued collaboration between all government instances through NCCD and GPCD as the institutional instruments to support the decision making concerning LD. Furthermore, the project has included training/capacity activities to increase the governmental understanding and awareness of the goods of SLM on sustainable rural development, and on rural population security. A member of NCCD and GPCD will have a chair in Project Advisory Committee, in order to align the project with NAP, ensure it is aligned with relevant government programs act as a vehicle for communication between project, stakeholders and decision-makers, minimizing the impacts of government transition. Moreover, the project are built based on cooperation agreements between stakeholders, formalized in the co-financial letters, and anchored in the umbrella of public consolidated structures (NCCD and GPCD).

#### A.7. Coordination with other relevant GEF financed initiatives.

7. At the global level, the project will contribute directly to implementation of goals set in the items on desertification, land degradation and drought (205 to 208) of the Rio+20 final document "The Future We Want", which provides guidance for implementation of sustainable development. The project exemplifies concrete solutions. It will also contribute to implementation of items 42, 43, 56, 57 and 77, which in turn are relevant to post-2015 development agenda of the United Nations.

8. There are various other projects in Brazil with which this project will collaborate. It will build on and incorporate achievements and findings from previous GEF-funded projects in the Caatinga. The main starting point is the MMA/UNDP/GEF project on the Caatinga (2004-2010) which validated Integrated Ecosystem Management (IEM) approaches at demonstration sites in other states in Brazil's NE and could be up-scaled through Outcome 2 of this project once the governance framework is in place. Findings from the GEF World Bank "Caatinga Conservation and Management - Mata Branca" project in Ceará and Bahia (2007-2013) will be used to include best approaches for successful mainstreaming of integrated ecosystem management practices in public policies. Of particular relevance will be their approaches to creation of environmental councils at the municipal level in Bahia, state policies to combat desertification in Ceará and strategic EIAs undertaken for intensive agro-forestry systems, alternative energy sources and recuperation of degraded land. Close coordination will be sought with the Waters of Sergipe program in part funded by a loan from the World Bank. SEMARH is the executing agency of both projects and has indicated its commitment to ensure that they are complementary, particularly in the land use planning and institutional strengthening components and in efforts to modernize irrigation and improve water management in the ASD municipalities in the Sergipe River Basin. The EEZ will be carried out in the Waters of Sergipe program. Coordination will focus primarily on the delivery of the programs to extension workers and farmer leaders in the dry sub-humid municipalities of moderate LD to prevent the advancement of desertification processes and on credit-based financial mechanisms to include funding for SLM activities. An Inter-American Development Bank (IADB) project will focus on consolidation of the National System of Conservation Units (SNUC), which includes the two Natural Monuments (MONAs), one of which is federal and the other state, but without overlap with this project.

9. There are a number of other relevant project with which coordination The Dom Helder Câmara project (PDHC) is carried out by the Secretariat of Territorial Development of the Ministry of Agrarian Development (MDA) in the Northeast since 2001 with support from IFAD and GEF and a proposal under development by FAO for GEF funding on "Reversing Desertification Process in Susceptible Areas of Brazil: Sustainable Agro-forestry Practices and Biodiversity Conservation." The two proposals represent complementary interventions within Brazil's plans for sustainable rural development. A further GEF funded programme is the Small Grants Program (SGP) which includes the Caatinga and actions to support sustainable agriculture and forest management at the community level to avoid conversion to pasture and monocultures and maintain ecosystem services. The UNDP/GEF project "Mainstreaming Biodiversity Conservation and Sustainable Use into NTFP and AFS Production Practices in Multiple-Use Forest Landscapes of High Conservation Value", has two sites in the Caatinga and its work on NTFP and agro-forestry system contributions to biodiversity conservation and ecosystem will be taken into account in the licensing and oversight processes and extension services. The synergies between these projects are detailed in the Prodoc. Specific coordination mechanisms among the various GEF projects will include yearly meetings among staff of the different projects to ensure information sharing and discussion on relevant topics, the formation of an inter-project working group and dissemination of the results of each project's monitoring and evaluation reports. The project team will also work closely with a number of other key programs outlined in the baseline section to maximize project outreach and impact.

#### **B. ADDITIONAL INFORMATION NOT ADDRESSED AT PIF STAGE:**

##### **B. 1 Describe how the stakeholders will be engaged in project implementation**

10. The ways in which different stakeholders at the federal, state and local levels will be engaged in project implementation are described in the table below and in Annex of the UNDP ProDoc



STAKEHOLDER	RELEVANT ROLES
Department to Combat Desertification (DCD), Secretariat of Extraction and Sustainable Rural Development (SEDR), Ministry of Environment -MMA.	DCD/SEDR/MMA is charged with the implementation of the UNCCD in the country, as the technical focal point for the Convention. It is responsible for the design, development, legal framework and integration of public policies in order to guarantee sustainability in actions and activities to combat desertification and land degradation in ASD. DCD will facilitate the promotion of uptake of SLM practices with support from various government agencies. The Project will be technically coordinated by DCD through its National Technical Director and the National Technical Coordinator who will work with the Project Management Unit. This implementing partner is key to all Outputs and will participate in the Project Advisory Committee (PAC).
Sergipe State Secretariat of Environment and Water Resources (SEMARH)	SEMARH plays a key role in the state environmental governance and licensing processes. It has strong buy-in and support from other sectors and levels of government. Consequently, SEMARH is a key stakeholder for this project due to its responsibilities in sustainable development of Sergipe and as a member of NCCD. The main state environmental programs are under its umbrella, which includes the implementation of PAE-Sergipe, which promotes SLM adoption in Sergipe. In this way, the project will carry out institutional strengthening of SEMARH in licensing and oversight processes. It is a relevant player for all Outputs, participating at the PAC.
National Commission to Combat Desertification (NCCD)	NCCD is the consultative and deliberative collegiate body that decides on the implementation of the national policy to combat desertification and mitigate the effects of drought. Due to its competence and as a member of the Project Steering Committee, the NCCD will contribute to the project as a consultative forum and decision-making instance for creating consensus on combating desertification, empowering social stakeholders involved and including minority groups. Moreover, NCCD will support the design of new guidelines, methodologies and related regulations regarding licensing procedures and adoption of SLM under the national framework in partnership with DCD, CONAMA, SFB and IBAMA. It is particularly relevant in the implementation of Outputs 1.3, 1.4, 2.1, 2.2 and 2.3, participating at the PAC.
Standing Interagency Task Force to Combat Desertification (GPCD)	GPCD is responsible for the coordination of actions to combat the causes and effects of desertification in Sergipe as foreseen in the PAE/SE. Its mandate includes the development and implementation of projects which provide financial and technical support for increasing capacity for sustainable coexistence with drought. GPCD will promote networking among state stakeholders as a forum for consensus building and strengthening of SLM adoption in Sergipe, working as a channel for flow of information and lessons learned in the project to the NCCD. Moreover, the GPCD will support the formulation of seven municipal plans to combat desertification in SAS, being a key stakeholder for Output 1.1.
Brazilian Institute for Environment and Renewable Natural Resources (IBAMA)	IBAMA is the authority responsible for implementation of the National Environmental Policy (NEP) and other environmental policies relating to federal responsibilities for environmental licensing regulation, environmental quality, authorization for use of natural resources and environmental inspection, monitoring and control, subject to the guidelines issued by the MMA. In this way, IBAMA will be responsible for assistance in monitoring and supervision of project activities supporting the development of methodological guidelines, regulations and resolutions, as well as providing technical inputs relating to supervision and monitoring to promote the adoption of SLM in ASD. It is a relevant stakeholder for (Outputs 1.3, 1.4, 2.1, 2.2 and participates at the PASC.
Brazilian Forest Service (SFB)	SFB is mandated to promote economic and sustainable use of forests in Brazil. It will be responsible for encouraging and supporting the adoption of SLM as a strategy to combat desertification and promote the sustainable use and conservation of forestry resources in ASD, providing technical support for implementation of the National Forest Inventory in Sergipe and supporting training for SLM practices. It is a relevant player for Outputs 1.3, 1.4, 2.1, 2.2 and 2.3.
Public Environmental Funds	The public environmental funds are tools to support the implementation of environmental public policies in the country (see Part IV, Annex V.1. These funds play a key role in the implementation of project field activities to enhance and encourage the adoption of SLM in Brazil's ASD as a strategy for recovery of environmental quality of degraded areas and sustainable management of landscapes. Concerning the project activities, the environmental funds will play an important role supporting project interventions in Sergipe. Moreover, they will encourage and support the development of studies and projects about combating desertification as a tool for adaptation and increased resilience of communities to climate change, as well as sensitivity assessment to enhance of SLM, APLs, Supply Chains, PES and other instruments that promote sustainable use of environmental resources and sustainable rural development in ASD. They are particularly relevant for Output 2.3.
Sergipe Environmental Agency (ADEMA)	ADEMA is the Sergipe State Authority (linked to SEMARH) responsible for environmental licensing and monitoring of activities with potential for causing environmental impacts and pollution. It is responsible for the implementation of CAR and related activities in Sergipe. As a member of the Project Technical Committee, ADEMA will undertake actions to collaborate in the design of procedures for licensing of SLM (alternative use and forest management), providing guidance for

STAKEHOLDER	RELEVANT ROLES
	optimizing and strengthening procedures for licensing and monitoring. Consequently, ADEMA will embrace project outcomes and lessons learned in the processes of licensing, monitoring and oversight of projects applying SLM, and take part in training activities of its staff. It is a relevant stakeholder for Outputs 1.1, 1.2, 1.3, 2.1 and 2.2) and participates at the PAC.
Sergipe State Secretariats (SEAGRI, SEDETEC)	The Sergipe government institutions that have responsibility for supporting rural development will be involved as stakeholders in the project. They will work in partnership with the other stakeholder to encourage the development of sustainable local production arrangements (APLs) and business plans in the ASD incorporating SLM guidelines resulting from the project, to support scientific-technical development related to project activities and to support the training of stakeholders. Furthermore, they will be urged to absorb the project outcomes in decision-making processes. These institutions are relevant for all outputs.
Alto Sertão Municipal government environmental authorities (*See list in next column)	Municipal authorities are responsible for environmental management at the local level, which includes encouraging the adoption of practices that promote sustainable economic, social and environmental development, and tracking and monitoring activities with potential for environmental impact and pollution. In the project activities, the environmental authorities of municipal governments will facilitate and support the implementation of project activities, develop local action plans to combat desertification and consolidate/strengthen their Environmental Systems (councils, regulation and environmental funds). In parallel, they will encourage the participation of members of the GPCD as a state-level consultative forum on desertification and support the development of technical capacity on desertification and LD. They are relevant for most of projects Outputs: 1.1, 1.2, 1.3, 2.1, 2.2. : * Canindé do São Francisco, Monte Alegre de Sergipe, Nossa Senhora da Glória, Nossa Senhora de Lourdes, Porto da Folha, Poço Redondo, Gararu)
Banking Institutions	The Banking institutions (federal, regional and state banks) with activities in rural development at all four scales of the project are relevant stakeholders. They will be partners in supporting the development of arrangements to increase the supply of financial resources for adoption of SLM in ASD. Moreover, they will have substantial tasks in preparation of bank staff to evaluate proposals for SLM for rural credit programs, training of technicians and ATER agencies in designing projects involving SLM and stimulating the capillarity of the credit system in all municipalities to support SLM, among others (see Annex V.1 Sources of Credit and Funding). Relevant for Outputs 1.4, 2.2, 2.3.
Research, Education and Extension Institutions	The main federal and state research, educational and extension institutions in ASD (UFS, IFS, EFA, UNILAB, EMBRAPA, INSA) are key stakeholders in formation and training activities of the project. They will support the development of studies on SLM and combating desertification in ASD, support the creation of methodological guidelines for SLM and promote the flow of technical and scientific information and traditional knowledge. In parallel, the institutions will participate in project forums to promote the uptake of project outcomes and best practices by the academic community in its research, education and extension, seeking socio-environmental inclusion of project stakeholders through extension activities of the institutions. These institutions are relevant for Outputs 1.3, 2.1 and 2.2. The UFS participates at the PAC.
Agrarian Reform Institutions	INCRA (Federal) and PRONESE (State) are responsible for the implementation of and support for agrarian reform and related activities for promotion of sustainable territorial development with inclusion via income and rights. In this project, they will absorb project outputs and outcomes in the planning of new settlement projects, support project activities carried out in agrarian reform settlements and strengthen capacity-building activities in coordination with the technical assistance and rural extension services. They are relevant for Outputs 1.1, 1.4, 2.1, 2.2 and 2.3. INCRA participates at the PAC.
Technical Assistance and Rural Extension Institutions (ATER Institutions)	The ATER institutions are essential strengthening family farming and expansion of agribusiness, promoting food security through technical assistance and rural extension, research and diffusion of sustainable social-inclusive practices. They will assess the training needs and credit for rural farmers, facilitate dialogue with the grassroots stakeholders (settlers and other rural communities) and develop new strategies for monitoring of ATER projects. In parallel, they will be responsible for supporting the training and qualification of ATER services and for collaboration in the project activities, in particular at field sites, in order to promote a synergy with ATER actions in the state and supporting the adoption of the SLM strategy to promote sustainable rural development so as to avoid land degradation. It is particularly important for Output 2.1 and 2.2.
Civil Society Organizations	The CSOs are represented in this project by ASA (Semiarid Network). They will support the strengthening of civil society for building participatory processes for sustainable development and coexistence with the semi-arid based on cultural values and social justice. Moreover, they will support the implementation of the project at field sites, coordination among key social stakeholders for project implementation and the training of network members on SLM in order to guarantee the dissemination of good practices and lessons learned generated by the project. They are involved in most of project's Outputs, namely, Outputs 1.3, 1.4, 2.1, 2.2 and 2.3

STAKEHOLDER	RELEVANT ROLES
Local Communities	The Local Communities and Rural Settlements of ASD are the most important stakeholder of the project as its ultimate beneficiaries. They will be involved in the implementation of field-level project activities and in the monitoring and maintenance of SLM plans. In parallel, they will benefit from training on SLM practices as well as training to facilitate access to credit and other financial instruments, improving the adoption of SLM. Moreover, they will have an important role to play in promoting replication of SLM practices to combat land degradation in ASD which includes participation in the NCCD and GPCD forums. Fundamental for project's undertaking on Outputs 1.2, 1.3, 2.1, 2.2 and 2.3
Public Prosecutors of the State of Sergipe (MP-SE)	As Public Prosecutors, the MP-SE is responsible for ensuring effective respect of public authorities and services for the rights guaranteed in the Constitution, taking the necessary measures to guarantee them. It will strengthen the implementation of Environmental Systems in the seven SAS municipalities and participate in the organization of forums for exchanging knowledge, in particular on the experiences of SLM, PES and community empowerment. MP-SE will participate at Outputs 1.1, 2.1, 2.2 of the project

## **B.2 Describe the socioeconomic benefits to be delivered by the Project at the national and local levels,:**

11. The socioeconomic benefits, including gender dimensions, are described in paragraph (10-11): This project will provide significant direct and immediate socio-economic benefits that will improve the living conditions of affected communities and smallholders in Sergipe's ASD. Direct benefits will be provided to an estimated 2,000 rural farmers within target areas (4 field sites). By increasing and strengthening crop, rangeland and livestock management, productivity is expected to increase and with this, income. Further benefits will be incurred by providing more stable incomes and by reducing economic vulnerability through diversification and sustainable production

12. Through training 100% of the agricultural extensionists in 7 municipalities replication in the medium term will reach 13,566 rural establishments of less than 50ha in the Alto Sertao (201,491ha) with particular emphasis on agrarian settlements. The adoption of SLM will also provide indirect and middle-to long-term benefits at greater orders of magnitude for the smallholders elsewhere in Sergipe and Brazil's ASD. Improved licensing for example will facilitate replication to at least 20% of farming smallholders household (rural properties < 50 ha) in ~94,000 ha of the ASD in Sergipe (48 municipalities, including SAS) and 10% in the NE will incur indirect benefits during project lifetime (licensing process goals absorbed by all 11 states environmental/combated desertification activities; small-credit scheme achieves replied in NE by Bank process improvement – BNB, BB, Caixa). The establishment of a strengthened state-level and national governance framework to promote SLM will change the approach to economic, social and environmental sustainability in these areas.

13. The increased adoption of SLM practices will increase well-being through: i) Greater food security resulting from increased agricultural productivity, crop diversification and adoption of more sustainable agricultural practices; (ii) Increased water security from improved ecosystem services in river basins through land restoration/recovery; (iii) Reduced vulnerability to climate change and extreme climatic events such as drought with the adoption of more sustainable approaches that are adapted to changing conditions, avoiding mortality and out-migration that were common in the past; (iv) Reduced economic vulnerability and increased incomes through diversified activities (including cover crops, crop diversification, beekeeping, fish farming, sustainable forestry management, silvo-pastoral activities, etc.), increased productivity, enlargement of markets and increased access to credit for SLM activities; 5) Reduced work load for women and girls in use of cisterns at home instead of fetching water and doing laundry in distant streams, as well as reduced work load collecting firewood and scouring pots and pans through use of improved cooking-stoves; (vi) Empowerment of women in households and communities through expanded role in production, income-generation and participation in local organizations; (vii) Greater involvement of youth and elderly in non-traditional subsistence and commercial land management practices and participation in markets.

## **B.3. Explain how cost-effectiveness is reflected in the project design:**

14. In the past, the general approach to desertification in Brazil's NE region has tended to be combatting drought by building dams and canals, distributing water in tank trucks and undertaking public works to generate temporary employment. The direct costs were high and even higher indirect costs resulted from losses of production, debt and out-migration, among others. Short-term results were cost-ineffective. Recently, the approach has changed to "coexistence with drought". This alternative approach to climate fits well with the new national approach to poverty

reduction through "socio-productive inclusion", which is essential based on self-reliance through one's own work, as a complement to cash transfers. The project is designed to complement this new approach and develop the governance; policies; finance and know how to upscale SLM practices of small-scale and family farmers in drought stricken area where current land use practices are causing land degradation aggravated by climatic characteristics. The project is also designed to mainstream SLM practices into social programmes such as *Brasil sem Miséria*, and others that support cash transfers making co-existence with drought not only feasible but also halting and reverting land degradation processes that are exacerbating the impacts of drought and increasing vulnerability to desertification. Cost-effectiveness is thus achieved mainly by means of optimizing and coordinating a substantial set of baseline programs to engender a shift from unsustainable to sustainable land use and by mobilization of co-financing from various federal and state government agencies and non-governmental organizations for this initiative (US\$ 17.33million). In addition the following design elements have been incorporated to increase cost effectiveness:

- The focus on one state is more cost-effective and will have greater on-the-ground impact than spreading resources too thinly over multiple states. With an area of 21,918 km<sup>2</sup>, Sergipe is Brazil's smallest state, although it is comparable in size to Israel and larger than El Salvador. It will provide a model for replication and is coupled with strategic national-level action to ensure that the GEF resources have broad impact The neighboring states, which share similar ecological and socioeconomic characteristics, are Alagoas to the north, Pernambuco to the west and Bahia to the west and south.
- Sergipe already has a substantial amount of baseline information as well as a State Plan to Combat Desertification, making it much more cost-effective to work here than in other states, where it would be necessary to start from scratch with data collection, interagency coordination and stakeholder engagement.
- Selection of field sites has been carefully undertaken to ensure that different degrees of degradation are covered will provide models for replication for different LD and socioeconomic scenarios.
- Adoption of a multi-stakeholder and multi-sector approach will reduce duplication of efforts and investments and minimize contradictory initiatives.
- SLM practices contribute to decreased public expenditures and increased tax revenues, generating net benefits without creating dependence of local and state governments neither on federal government, nor of poor people on government.

### **C. DESCRIBE THE BUDGETED M & E PLAN:**

15. Monitoring and evaluation will be undertaken following UNDP and GEF requirements. These are detailed in Section V of the UNDP ProDoc. Periodic monitoring of implementation progress will be undertaken by the UNDP CO through quarterly meetings with the project implementation team, or more frequently as deemed necessary. Progress made shall be monitored in the UNDP Enhanced Results Based Management Platform and the risk log should be regularly updated in ATLAS based on the initial risk analysis. Annual monitoring will occur through the Project Advisory Committee and project monitoring reporting. This includes Project Inception Report (PIR) and an Annual Project Report (APR/PIR) and Project Implementation Review (PIR) which is an annual monitoring process mandated by the GEF. Given the similarities between the both APR/PIR and PIR, UNDP-GEF has prepared a harmonized format for use in fulfilling the two requirements. The project will be subjected to at least two independent external evaluations as follows: An independent Mid-Term Review and an independent Final Evaluation in line with UNDO and GEF requirements. Annual audits will be undertaken. The M&E plan is summarised below.

<b>Type of M&amp;E Activity</b>	<b>Responsible Parties</b>	<b>Budget US\$</b>	<b>Time Frame</b>
Inception Workshop and Report	<ul style="list-style-type: none"> <li>▪ Project Manager</li> <li>▪ UNDP CO, UNDP GEF</li> </ul>	Indicative cost: \$15,000	Within first two months of project start up
Measurement of Means of Verification of project results.	<ul style="list-style-type: none"> <li>▪ UNDP GEF RTA/Project Manager will oversee the hiring of specific studies and institutions and delegate responsibilities to relevant team members.</li> </ul>	To be finalized in Inception Phase and Workshop.	Start, mid and end of project (during evaluation cycle) and annually when required.
Measurement of Means of Verification for Project	<ul style="list-style-type: none"> <li>▪ Oversight by Project Manager</li> <li>▪ Project team</li> </ul>	To be determined as part of the Annual Work	Annually prior to ARR/PIR and to the


Type of M&E Activity	Responsible Parties	Budget US\$	Time Frame
Progress on <i>output and implementation</i>		Plan's preparation.	definition of annual work plans
ARR/PIR	<ul style="list-style-type: none"> <li>▪ Project manager and team</li> <li>▪ UNDP CO</li> <li>▪ UNDP RTA</li> <li>▪ UNDP EEG</li> </ul>	None	Annually
Project Board Meetings	<ul style="list-style-type: none"> <li>▪ Project Coordinator</li> <li>▪ UNDP-CO</li> <li>▪ GoP representatives</li> </ul>	\$20,000	Two times per year
Periodic status/ progress reports	<ul style="list-style-type: none"> <li>▪ Project manager and team</li> </ul>	None	Quarterly
Mid-term Review	<ul style="list-style-type: none"> <li>▪ Project manager and team</li> <li>▪ UNDP CO</li> <li>▪ UNDP RCU</li> <li>▪ Evaluation team</li> </ul>	Indicative cost: \$20,000	At the mid-point of project implementation.
Final Evaluation	<ul style="list-style-type: none"> <li>▪ Project manager and team,</li> <li>▪ UNDP CO</li> <li>▪ UNDP RCU</li> <li>▪ Evaluation team</li> </ul>	Indicative cost : \$30,000	At least three months before the end of project implementation
Lessons Learned	<ul style="list-style-type: none"> <li>▪ Project manager and team</li> <li>▪ UNDP CO</li> <li>▪ Local consultant</li> </ul>	None	Yearly
Project Terminal Report	<ul style="list-style-type: none"> <li>▪ Project manager and team</li> <li>▪ UNDP CO</li> <li>▪ Local consultant</li> </ul>	None	At least three months before the end of the project
Audit	<ul style="list-style-type: none"> <li>▪ UNDP CO</li> <li>▪ Project manager and team</li> </ul>	Cost per year approx. \$4.000 (total \$ 20.000)	Yearly
Visits to field sites	<ul style="list-style-type: none"> <li>▪ UNDP CO</li> <li>▪ UNDP RCU (as appropriate)</li> <li>▪ Government representatives</li> </ul>	For GEF supported projects, paid from IA fees and operational budget	Yearly
<b>TOTAL</b>		<b>US\$105,000</b>	

### **PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT AND GEF AGENCY**

#### **A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT(S) ON BEHALF OF THE GOVERNMENT:**

NAME	POSITION	MINISTRY	DATE (MM/dd/yyyy)
Rodrigo Vieira	Operational Focal Point	MPGO	August 31, 2012

#### **B. GEF AGENCY 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	Project Contact Person	Telephone	Email Address
Adriana Dinu, UNDP/GEF Executive Coordinator		3 October 2014	Helen Negret, Senior Technical Advisor EBD Team	+ (507) 3024808	helen.negret@undp.org

## ANNEX A: PROJECT RESULTS FRAMEWORK

	Indicator	Baseline	Targets End of Project	Sources of Verification	Risks
<p><b>Project Objective</b></p> <p>Strengthening SLM governance frameworks to combat land degradation processes in Sergipe ASD in NE Brazil</p>	<ol style="list-style-type: none"> <li>1. Area (ha) of rural properties in which recommended SLM practices are implemented in Sergipe.</li> <li>2. Average tree density in forest patches &lt; 50 ha.</li> <li>3. Loss of vegetation coverage in SE-ASD (48 municipalities).</li> <li>4. Production of small-scale farms for the four field sites.</li> <li>5. Increase in the general score of LD Tracking Tool.</li> </ol>	<ol style="list-style-type: none"> <li>1. No recommended SLM practices disseminated to date.</li> <li>2. &lt; 800 tree/ha.</li> <li>3. Projected rate of deforestation without the project 0.29% per year.</li> <li>4. Projected rate of productivity 0.7 t/ha of main subsistence crops (manioc, beans, corn).</li> <li>5. General score of LD Tracking Tool: 1</li> </ol>	<ol style="list-style-type: none"> <li>1. 70,000 ha on 2,000 rural properties, including replication areas.</li> <li>2. &gt;1,500 tree/ha</li> <li>3. Rate of deforestation reduced to 0.14% per year.</li> <li>4. 30% increase of productivity of crops by end of project.</li> <li>5. General score of LD Tracking Tool: 3</li> </ol>	<ol style="list-style-type: none"> <li>1. Project reports, LD monitoring and evaluation system, data from ADEMA and ATER services.</li> <li>2. Data from ATER services.</li> <li>3. INPE remote sensing deforestation rates; data from Rural Environmental Registry (CAR).</li> <li>4. Annual IBGE production data by municipality (PAM, PPM, PEVS) and/or data from ATER services.</li> <li>5. GEF LD Tracking Tool</li> </ol>	<p>New federal and state administration taking office in 2015 less supportive of strengthening SLM governance frameworks.</p> <p>Data disaggregated by municipality unavailable on yearly basis</p>
<p><b>Outcome 1:</b></p> <p>Strengthened governance framework contributes to avoiding, reducing and reverting land degradation in Sergipe ASD.</p>	<ol style="list-style-type: none"> <li>1. Improved norms and directives on SLM at State level.</li> <li>2. Level of capacity of staff at SEMARH, key municipalities in SE-ASD and IBAMA, where appropriate, related to: SLM and LD issues; licensing of agriculture/livestock and forest management activities; and land use oversight/enforcement.</li> </ol>	<ol style="list-style-type: none"> <li>1. LD norms and technical directives are not in place at state level.</li> <li>2. 01 State level Action Plan to Combat Desertification (PAE) and no municipal Action Plans (MAP) at the SE-ASDs.</li> </ol>	<ol style="list-style-type: none"> <li>1. LD norms and technical directives developed and submitted to NCCD.</li> <li>2. Revised PAE and 07 MAPs at the SE-ASDs prepared, approved with operational plans and budget for implementation.</li> </ol>	<ol style="list-style-type: none"> <li>1. NCCD resolutions, project reports</li> <li>2. MAPs presented to State Permanent Working Group to Combat Desertification (GPCD) and NCCD. Sergipe PPA.</li> </ol>	<p>Turnover of staff within SEMARH, key municipalities and IBAMA reduces impact of project capacity-building actions.</p> <p>Political disputes undermine development of MAPs for INRM</p> <p>Political resistance and bureaucratic</p>

	<b>Indicator</b>	<b>Baseline</b>	<b>Targets End of Project</b>	<b>Sources of Verification</b>	<b>Risks</b>
	<p>3. Number of state licenses taking into account SLM criteria and practices for Alto Sertão Sergipano (SAS)</p> <p>4. % of compliance with rural licensing processes in 2 SAS municipalities.</p>	<p>3. Number of staff who are knowledgeable on SLM practices is nearly null.</p> <p>4. Existing licenses do not take due account of SLM criteria in SAS. Baseline for compliance will be determined when final deliberation on CAR is made.</p>	<p>3. Nuclei of SLM and LD issues established and trained in SEMARH, with participation of key municipalities in SE-ASD, IBAMA and ADEMA.</p> <p>4. 10% increase in licenses with SLM criteria per year, post yr. 3.</p> <p>By end year 2: revised licensing criteria for multiple uses designed and proposed to ADEMA, GPCD and NCCD.</p> <p>By end year 4: revised licensing criteria for forest use designed and proposed to IBAMA, ADEMA, GPCD and NCCD.</p>	<p>3. Training program certificates and Administrative Rule with Nuclei Creation.</p> <p>4. ADEMA and/or IBAMA and/or GPCD and/or NCCD records on licensing.</p>	<p>delays and unforeseen legal issues</p>
<p><b>Output 1.1:</b> Sergipe state-level policy and planning framework supports integrated SLM in its ASD</p> <p><b>Output 1.2:</b> State land-use licensing processes stimulate appropriate measures to reduce LD</p> <p><b>Output 1.3:</b> Monitoring land use optimized for SLM implementation in ASD</p> <p><b>Output 1.4:</b> Knowledge management and national-level governance framework strengthened to increase adoption of SLM in Sergipe and facilitate replication in NE</p>					
<p><b>Outcome 2:</b> <b>Uptake of SLM/SFM practices increased in Alto Sertão of Sergipe (SAS), with replication in rest of SEASD</b></p>	<p>1. Number of farming households implementing sustainable subsistence and commercial agricultural practices, improved grazing systems and integrated SLM practices in SAS</p> <p>2. Reduced land degradation over 8,000 ha in 04 field sites.</p>	<p>1. Fewer than 50 farms with recommended SLM practices adopted in SAS. Legal requirements for LRs and APPs not enforced.</p> <p>2. Nearly 50% of the land area in 04 field sites is under accentuated and/or severe land degradation (soil loss by water erosion = 10 t/ha; and loss of soil carbon = 3 t/ha)</p>	<p>1. At least 2,000 farming households in SAS adopt sustainable agricultural practices, improved grazing systems and integrated SLM practices by end of project.</p> <p>2. By the end of year 3: 500 families in 4 field sites with SLM strategies developed &amp; implemented. By end of project 25% of land degradation in these 04 field sites (2,000 ha) reduced ( soil loss by water erosion &lt; 5 t/ha; and loss of soil carbon &lt; 2 t/ha* ; **)</p>	<p>1. Project reports, LD monitoring and evaluation system, data from rural extension institutions</p> <p>2. Soil loss and carbon stock data in 04 field sites. Project Surveys.</p>	<p>Drought or severe climatic conditions impede uptake of some SLM practices.</p> <p>Staff turnover reduces delivery of SLM guidance to producers; difficulty obtaining data on rest of SEASD</p> <p>Banking rules and regulations or alleged lack of technical</p>

	<b>Indicator</b>	<b>Baseline</b>	<b>Targets End of Project</b>	<b>Sources of Verification</b>	<b>Risks</b>
	<p>3. Percentage of agricultural extensionists active in SAS delivering targeted support that includes recommended SLM directives</p> <p>4. Investments in SLM practices in Sergipe</p>	<p>3. Practically none (0%)</p> <p>4. Financing through commercial banks without SLM criteria. -US\$18Million in financing through PRONAF to SAS in 2012 (nearly 12 thousand contracts) with limited SLM criteria. -US\$995k through environmental funds to Sergipe (0.2% of total investment).</p>	<p>3. 100% of extensionists active in SAS deliver targeted support that includes recommended SLM directives, with replication in SEASD</p> <p>4. 20 % increase in investment in SLM practices in Sergipe.  By year 2: SLM technical guidelines to support decision making by credit agents.</p>	<p>3. Reports of training workshops of extensionists, rural extension agency plans.</p> <p>4. Bank credit lines and other funds descriptions and project reports</p>	<p>parameters</p> <p>Ministerial reorganization in new federal administration affects resources or priorities for allocation</p>
<p><b>Output 2.1:</b> SLM best practices implemented in SAS provide guidance for licensing so as to revert LD processes</p> <p><b>Output 2.2:</b> State extension services incorporate SLM guidelines for ASDs and provide targeted support to SAS</p> <p><b>Output 2.3:</b> State-level and national access to diverse funds improved for uptake of SLM in ASDs</p>					

\*. The target is based on an estimate for the entire Caatinga biome and might not prove feasible for specific sites during implementation. In year data collection will be conducted at field on specific selected farms to verify these estimates

\*\* Carbon sequestration by means of carbon retention in soil = 8 t/CO<sub>2</sub> e/ha (to be confirmed during year 1).



## ANNEX B: RESPONSES TO PROJECT REVIEWS

Reviewer's comments	Responses	Reference in UNDP Prodoc
<b>GEF Secretariat Comment at PIF (PFD)/Work Program Inclusion, date.</b>		
It is expected that baseline estimates for appropriate indicators will be established during project preparation. More accurate measure of targets and baselines for outcomes and GEBs	The Strategic Results Framework has been prepared with measurable baseline and target values, including for GEBs. For indicators related to specific land degradation processes these have been estimated on existing data for the Caatinga and will be verified as part of the initial activities when each SLM practice is implemented in the pre-selected landscape.	Strategic Results Framework page p. 72-75
Relevant risks and mitigation measures have been identified. These should be further elaborated during project elaboration.	The risks, ratings and mitigation table in Table 15 and Annex V.5 have been expanded upon to include greater detail. Additional risks were identified during the PPG process and incorporated in the table and the risk-log.	Risks, ratings and mitigation in Table 15 p. 50 and Annex V.5 on page 125
Completed LD TT	The LD TT has now been completed and is included in the additional information of the ProDoc.	Part IV of Section IV. ProDoc, separate file.
A detailed assessment of project beneficiaries, including gender.	Gender issues were considered while preparing the UNDP Environmental and Social Screening tool, which is Annex V.4 of the Project. In addition, the text on Social Inclusion section includes details on beneficiaries, including how the participation of women in the project will be ensured, through monitoring of their participation in training activities and meetings. The benefits section also includes additional clarifications about project beneficiaries, including gender. Please refer to Table 1. Institutional Capacity/Stakeholders Engagement Plan. In addition, a detailed analysis of stakeholders has been carried out, as is included in the Stakeholders analysis and Participation annex.	Annex V.4. ESS Screening tool (Separate file); Social Inclusion text on page 30;  Section IV. Part III. Stakeholders' analysis and Participation. Table 1. Stakeholders Engagement Plan p. 88 – 106.
<b>STAP Scientific and Technical screening of the Project Identification Form (PIF), date of screening</b>		
1. The current project framework raises a number of questions. For example, how many officers will be trained on land-use oversight processes (1.3); what proportion of the area classified as accentuated by soil land degradation will benefit from the soil and water techniques (2.1);	All Project Outputs have now been described in more detail, including specific information on numbers and targets. There has been a slight change in focus on Output 1.3 because of delays at national level in the Environmental registry process. The project is now focusing more on improving the licensing processes and training for CRA/PRA. However as licensing is clearer and oversight more feasible officers will be trained on land use oversight processes but targets will be set by midterm and will seek to set up nuclei of trained staff at SEMARH, with participation of municipalities, IBAMA and ADEMA. Under 2.2 training will be undertaken at different levels including 100% of the agricultural extensionists in the Alto S. Also for technical staff and farmers who can act as agents of multiplication and dissemination of SLM technologies (20 technicians from	Project Objective, Outcomes and Outputs/ Activities, p. 31 -43. See paragraphs 97 – 101 and 125 - 130 for detail  Logframe p. 68-72  Table 10 Levels of direct and indirect

<p>among other expected outcomes.</p>	<p>each of the 7 municipalities of Alto Sertão and 10 in the other ASDs in Sergipe). There will be specific technical training on SLM practices for 250 farmer multipliers in Sergipe , and another of similar magnitude on sustainable coexistence with the semiarid leaders of public agencies engaged in credit and licensing such as BNB, BANESE and ADEMA.</p> <p><u>In terms the proportion of the areas classified as accentuated by soil land degradation that will benefit from soil and water techniques</u> there will be different levels of spatial impact during the life of the project and in the longer term. This is because the project will be undertaking both direct on the ground actions in specific localities as well as addressing policy and governance and financial barriers at State and national level. A table has been developed that indicates the spatial impact of each level and each output both directly from the project and indirectly over time. In terms of specific on the ground actions under Output 2.1, nearly 50% of the land area of the 04 field sites is under accentuated and/or severe land degradation. The project targets to reduce 25% of land degradation in those areas. The adoption of SLM will also provide indirect and middle-to long-term benefits at greater orders of magnitude for the smallholders elsewhere in Sergipe and Brazil's ASD. Improved licensing for example will facilitate replication to at least 20% of farming smallholders household (rural properties &lt; 50 ha) in ~94,000 ha of the ASD in Sergipe (48 municipalities, including SAS) and 10% in the NE will incur indirect benefits during project lifetimereplication</p>	<p>impact (replication) of project outputs p. 31 (also inserted in this CEO request as table 1)</p>
<p>2. Component 1 briefly describes that it will partly focus on knowledge management and information dissemination on best practices. It would be useful if this activity could be described further in the full proposal, and detail how it will contribute to the training extension programs on sustainable land management practices (Component 2).</p>	<p>All Project Outputs have now been described in more detail, and the project elements related to knowledge management and information dissemination on best practices have been expanded upon. Specifically, the project will undertake actions to develop norms and technical directives for reducing LD and developing a communication program for public institutions, as well as widespread dissemination through diverse media and knowledge management with policy papers, outreach initiatives in training institutions, training materials and strengthening the Desertification Network. This feeds into training of extension services and to uptake of SLM practices by farmers and government agencies.</p>	<p>Project Strategy, Output 1.4. See paragraphs 102 – 105.</p>
<p>3. In component 2, the project developers may wish to consider the use of cover crops in a crop rotation system with corn under no-tillage. According to field trials in North-Eastern Brazil, the use of cover crops in a rotation system can improve, or recover, soil carbon and enhance soil</p>	<p>The SLM best practices to be implemented the Alto Sertão include cover crops as described in the description of Output 2.1. One of the specific rotations that has been tested in Sergipe and is recommended is the use of cover crops in a rotation system with corn in order to improve or recover soil carbon and enhance soil organic matter, according to various studies by Pedrotti (2012) and co-authors from the Federal University of Sergipe.</p> <p>Annex V.2. on SLM Best practices details the techniques to be used in the ASDs in greater details, please refer to the annex for more information. Those techniques were the Best Practices selected by the Government of Brazil to combat desertification and</p>	<p>Project Strategy, Output 2.1. See paragraphs 111 – 124. Table 13: Benefits associated with integrated and sustainable production systems proposed by project to SAS, p. 47</p>

<p>organic matter (Pedrotti, A. "Behavior of the organic matter as indicators of the soil quality under soil management systems, Northeastern Brazil, in experiment long-term. Agro Environ, Wageningen. 2012.)</p>	<p>presented to the UNCCCD.</p>	<p>and Annex V.2 SLM Best Practices in the ASD, Benefits, Field Sites, Activities, Costs And Replication, p. 111–120.</p>
<p>4. The global environment benefits table (page 11) is useful in presenting the baseline situation, the proposed interventions, and the expected benefits. In the full proposal, STAP recommends to develop this table, or section, further by defining clearly what indicators and methods will be used to measure and track the project's delivery of global environment benefits.</p>	<p>The section on Expected Global Environmental Benefits has been expanded upon to include a description of the benefits associated with seven alternative production systems involving 14 field activities. The specific indicators that will be used to measure and track the project's delivery of global environment benefits are identified in the Tracking Tool.</p>	<p>Expected Global Benefits section, p. 145 – 149 and Table 12 and 13 p. 46 - 48</p> <p>LD TT (See separate file).</p>
<p>5. Under risks, it would be useful if the proposal could take into account the possibility that the proposed interventions will not successfully address land degradation due to its severity, and other factors that could affect the success of strengthening the governance frameworks on sustainable land management. For example, competing land use demands from multiple stakeholders may partly depend on economic policies (and agricultural prices) that may influence the sustained adoption of a particular sustainable land management best practice.</p>	<p>The project will promote appropriate interventions tailored to different levels of land degradation. For severely degraded areas, the project will promote dry stone dams, planting of <i>Atriplex nummularia</i> and conservation practices, among others. These have been shown to be successful in other regions and are not considered a risk to addressing LD in the medium term. For medium degradation, the project will promote cisterns and trench tanks. For most areas, multiple use SFM based on experiences and data if initiatives undertaken in different regions of the NE.</p> <p>The comment on competing land use demands from multiple stakeholders depending on economic policies (and agricultural prices) that may influence the sustained adoption of a particular sustainable land management best practice has been taken into account but is not considered a critical risk. This is because the project will work at different levels including supporting the implementation and updating of State policy for combating desertification (PAE-SE) that recognises the need to address land degradation as a key factor of development and more so in the face of changing climates. In contrast to past approaches that focused on building dams and canals, distributing water in tank trucks and undertaking public works to generate temporary employment, new approaches focus on "coexistence with drought". This alternative approach to climate fits well with the new national approach to poverty reduction through "socio-productive inclusion", which is essential based on self-reliance through one's own work, as a complement to cash</p>	<p>Risks, ratings and mitigation in Table 15 p. 50 and Annex V.5 on page 125</p>

	<p>transfers. The project is designed to complement this new approach and develop the governance; policies; finance and know how to upscale SLM practices of small-scale and family farmers in drought stricken area where current land use practices are causing land degradation aggravated by climatic characteristics. The project is also designed to mainstream SLM practices into social programmes such as <i>Brasil sem Miséria</i>, making co-existence with drought not only feasible but also halting and reverting land degradation processes that are exacerbating the impacts of drought and increasing vulnerability to desertification. Nonetheless The Risks and Assumptions table has been expanded upon to include greater detail. Additional relevant risks were identified during the PPG process and incorporated in the table.</p>	
<p>6. The potential impacts of climate change and the mitigation measures to address it are described briefly in section B.3. and B.4. Nonetheless, STAP recommends for these issues to be imbedded further in the proposal. In this regard, STAP recommends describing the region's socioeconomic vulnerabilities to climate change in the problem statement. Data on climate change also could be added. Furthermore, climate change adaptive strategies could feature more prominently in the components both as adaptive measures and how the project could seek to strengthen adaptive strategies into sustainable land management frameworks. For example, UNDP could rely on its broad and extensive knowledge on adaptation to strengthen capacity and policy development. Additionally, UNDP could rely, and build on, its experience on strengthening small-farmers' adaptive capacity in north-east Brazil (Simoes, A. et al.</p>	<p>The Environmental Context section of the ProDoc now includes additional information on the scenarios of land degradation and climate change. While it is unclear how climate change will affect each part of the ASD, increased evapotranspiration and dryness inland are expected, affecting both soil and reservoirs, tending to intensify water deficiency. However, higher sea surface temperatures in the Atlantic may also lead to more precipitation, possibly on a seasonal basis, which could benefit Caatinga vegetation and native fauna.</p> <p>Information on socio-economic vulnerabilities has also been added, such as possible losses in the productivity of food crops (such as beans, corn and manioc) in NE Brazil, as well as a decrease in their nutritional quality due to higher sugar content and lower protein content. The worst scenario would be a return to the past, with hunger, death and out-migration due to drought. One of the main means to avoid this is social policies such as cash transfers. As mentioned above the project is also designed to mainstream SLM practices into social programmes such as <i>Brasil sem Miséria</i> and other cash transfer schemes such as the bolsa verde making this not only feasible but also halting and reverting land degradation processes that are exacerbating the impacts of drought and increasing vulnerability to climate change.</p> <p>UNDP will draw on the experience cited by STAP in terms of climate adaptation and small farmers adaptive capacity in north-east Brazil as well as its other valuable experience with human development, promotion of sustainable livelihoods, capacity development and policy dialogue.</p>	<p>Scenarios of land degradation and climate change p. 6 – 12 and 19</p>

<p>"Enhancing adaptive capacity to climate change: The case of smallholders farmers in the Brazilian semi-arid region". Environmental Science &amp; Policy. 2010)</p>		
<p>7. The table in B.5 is useful to illustrate the various stakeholders and their roles. One minor suggestion is to add a third column that specifies the stakeholders' roles in relation to the project component(s) and comparative advantage(s).</p>	<p>The Stakeholder Analysis Table in the ProDoc has now been modified to specify the stakeholders' roles in relation the project components and outcomes. The comparative advantages of each are described in the second column of the Table 1 of Part III and their Role/Interest in Project in column 3.</p>	<p>The Stakeholder Analysis Table in the ProDoc p.25 – 28 and Table 1. In Part III p. 88 – 106</p>
<p>8. STAP suggests for the project developers to define the acronyms when they are first stated in the proposal. This would enhance readability.</p>	<p>All acronyms included in the ProDoc and CEO Endorsement have now been defined at first mention.</p>	<p>See throughout ProDoc and CEO Endorsement.</p>

**ANNEX C: STATUS OF IMPLEMENTATION OF PROJECT PREPARATION ACTIVITIES AND THE USE OF FUNDS<sup>1</sup>**

A. PROVIDE DETAILED FUNDING AMOUNT OF THE PPG ACTIVITIES FINANCING STATUS IN THE TABLE BELOW:

<b>PPG Grant Approved at PIF: 84,886</b>			
<b><i>Project Preparation Activities Implemented</i></b>	<b><i>GEF/LDCF/SCCF/NPIF Amount (\$)</i></b>		
	<b><i>Budgeted Amount</i></b>	<b><i>Amount Spent To date</i></b>	<b><i>Amount Committed</i></b>
Baseline and technical analyses to further identify and cost the actions to be included in the FSP.	84,886	48,493	36,393
Analysis of national and local capacities and consultations for finalizing the FSP details and its implementation arrangements.			
Development of feasibility analysis, budget and key project design elements			
<b>Total</b>	<b>84,886</b>	<b>48,493</b>	<b>36,393</b>

**ANNEX D: CALENDAR OF EXPECTED REFLOWS (if non-grant instrument is used) NA**