

## **ANNEX V.4 UNDP Environmental and Social Screening Tool**

### **Pre-screening using the UNDP ESSP Checklist: for PIMS 3066 SLM in the semi-arid region of Brazil: Sergipe**

#### **Description:**

This project will address land degradation (LD) in the state of the Sergipe in the Brazilian Northeast (NE). It is designed to optimize and coordinate existing programs to engender a shift from unsustainable to sustainable land management, arresting land degradation in a state where c49% of land is susceptible to desertification and only 13% the original Caatinga vegetation remains. It will do so by strengthening the state environmental governance framework to better addresses the main drivers of land degradation and desertification focusing primarily on the escalating conflict of land uses and unsustainable agriculture practices in degraded agro-ecological landscapes where LD is already high causing soil erosion, soil nutrient depletion, damaging hydrological system integrity and undermining ecosystems services. Key elements will be strengthened land use planning; environmental permitting and enforcement of land use to avoid, reduce and mitigate LD in areas susceptible to desertification (ASD). Through strengthened institutional and farmer capacities and facilitation of access to existing funding sources, uptake of SLM practices will be increased principally in the area of highest LD in the state – the Alto Sertão. This has been identified as a state priority and constitutes a Citizen Territory – an area targeted nationally in a program to reduce hunger. By reducing LD and maintaining vital ecosystem services the project will improve the livelihoods in an area with high poverty and social hardship indices, particularly among smallholder farmers and those in agrarian reform settlements. Strategic action at the national level through the Ministry of Environment, Secretary of Extraction and Sustainable Rural Development–Department to Combat Desertification and Land Degradation (MMA/DCD) and the National Commission for Combatting Desertification (NCCD), will enable this State SLM governance model to be disseminated to other states of the NE thereby facilitating replication across the entire Brazilian semi-arid region and evoking further GEB in the long term.

**UNDP ESSP Checklist**

**Question 1: Has a combined environmental and social assessment/review that covers the proposed project already been completed by implementing partners or donor(s)?**

Select answer below and follow instructions:

**NO** → Continue to Question 2 (do not fill out Table 1.1)

**YES** → No further environmental and social review is required if the existing documentation meets UNDP’s quality assurance standards, and environmental and social management recommendations are integrated into the project. Therefore, you should undertake the following steps to complete the screening process:

1. Use Table 1.1 below to assess existing documentation. (It is recommended that this assessment be undertaken jointly by the Project Developer and other relevant Focal Points in the office or Bureau).
2. Ensure that the Project Document incorporates the recommendations made in the implementing partner’s environmental and social review.
3. Summarize the relevant information contained in the implementing partner’s environmental and social review in Annex A.2 of this Screening Template, selecting Category 1.
4. Submit Annex A to the PAC, along with other relevant documentation.

<b>TABLE 1.1: CHECKLIST FOR APPRAISING QUALITY ASSURANCE OF EXISTING ENVIRONMENTAL AND SOCIAL ASSESSMENT</b>	<b>Yes/No</b>
1. Does the assessment/review meet its terms of reference, both procedurally and substantively?	n/a
2. Does the assessment/review provide a satisfactory assessment of the proposed project?	n/a
3. Does the assessment/review contain the information required for decision-making?	n/a
4. Does the assessment/review describe specific environmental and social management measures (e.g. mitigation, monitoring, advocacy, and capacity development measures)?	n/a
5. Does the assessment/review identify capacity needs of the institutions responsible for implementing environmental and social management issues?	n/a
6. Was the assessment/review developed through a consultative process with strong stakeholder engagement, including the view of men and women?	n/a
7. Does the assessment/review assess the adequacy of the cost of and financing arrangements for environmental and social management issues?	n/a
<b>Table 1.1 (continued) For any “no” answers, describe below how the issue has been or will be resolved (e.g. amendments made or supplemental review conducted).</b>	

**Question 2: Do all outputs and activities described in the PIF or Project Document fall within the following categories?**

- Procurement (in which case UNDP’s [Procurement Ethics](#) and [Environmental Procurement Guide](#) need to be complied with)
- Report preparation
- Training
- Event/workshop/meeting/conference (refer to [Green Meeting Guide](#))
- Communication and dissemination of results

Select answer below and follow instructions:

**NO** → Continue to Question 3

**YES** → No further environmental and social review required. Complete Annex A.2, selecting Category 1, and submit the completed template (Annex A) to the PAC.

**Question 3: Does the proposed project include activities and outputs that support *upstream* planning processes that potentially pose environmental and social impacts or are vulnerable to environmental and social change (refer to Table 3.1 for examples)? (Note that *upstream* planning processes can occur at global, regional, national, local and sectoral levels)**

Select the appropriate answer and follow instructions:

**NO** → Continue to Question 4.

**YES** → Conduct the following steps to complete the screening process:

1. Adjust the project design as needed to incorporate UNDP support to the country(ies), to ensure that environmental and social issues are appropriately considered during the upstream planning process. Refer to Section 7 of this Guidance for elaboration of environmental and social mainstreaming services, tools, guidance and approaches that may be used.
2. Summarize environmental and social mainstreaming support in Annex A.2, Section C of the Screening Template and select "Category 2".
3. If the proposed project ONLY includes upstream planning processes then screening is complete, and you should submit the completed Environmental and Social Screening Template (Annex A) to the PAC. If downstream implementation activities are also included in the project then continue to Question 4.

<b>TABLE 3.1</b>	<b>EXAMPLES OF UPSTREAM PLANNING PROCESSES WITH POTENTIAL DOWNSTREAM ENVIRONMENTAL AND SOCIAL IMPACTS</b>	<b>Check appropriate box(es) below</b>
1.	Support for the elaboration or revision of <b>global-level</b> strategies, policies, plans, and programmes. <i>For example, capacity development and support related to international negotiations and agreements. Other examples might include a global water governance project or a global MDG project.</i>	
2.	Support for the elaboration or revision of <b>regional-level</b> strategies, policies and plans, and programmes. <i>For example, capacity development and support related to transboundary programmes and planning (river basin management, migration, international waters, energy development and access, climate change adaptation etc.).</i>	
3.	Support for the elaboration or revision of <b>national-level</b> strategies, policies, plans and programmes. <i>For example, capacity development and support related to national development policies, plans, strategies and budgets, MDG-based plans and strategies (e.g. PRS/PRSPs, NAMAs), sector plans.</i>	X
4.	Support for the elaboration or revision of <b>sub-national/local-level</b> strategies, policies, plans and programmes. <i>For example, capacity development and support for district and local level development plans and regulatory frameworks, urban plans, land use development plans, sector plans, provincial development plans, provision of services, investment funds, technical guidelines and methods, stakeholder engagement.</i>	X

**Question 4: Does the proposed project include the implementation of *downstream* activities that potentially pose environmental and social impacts or are vulnerable to environmental and social change?**

To answer this question, you should first complete Table 4.1 by selecting appropriate answers. If you answer "No" or "Not Applicable" to all questions in Table 4.1 then the answer to Question 4 is "NO". If you answer "Yes" to any questions in Table 4.1 (even one "Yes" can indicate a significant issue that needs to be addressed through further review and management) then the answer to Question 4 is "YES". If you are "unable to answer" more than a few of the questions in Table 4.1 then conduct further studies, consultation, or revision before selecting the appropriate answer:

**NO** → No further environmental and social review and management required for downstream activities. Complete Annex A.2 by selecting "Category 1", and submit the Environmental and Social Screening Template to the PAC.

**YES** → Conduct the following steps to complete the screening process:

1. Consult Section 8 of this Guidance, to determine the extent of further environmental and social review and management that might be required for the project.
2. Revise the Project Document to incorporate environmental and social management measures. Where further environmental and social review and management activity cannot be undertaken prior to the PAC, a plan for undertaking such review and management activity within an acceptable period of time, post-PAC approval (e.g. as the first phase of the project) should be outlined in Annex A.2.
3. Select "Category 3" in Annex A.2, and submit the completed Environmental and Social Screening Template (Annex A) and relevant documentation to the PAC.

**TABLE 4.1: ADDITIONAL SCREENING QUESTIONS TO DETERMINE THE NEED AND POSSIBLE EXTENT OF FURTHER ENVIRONMENTAL AND SOCIAL REVIEW AND MANAGEMENT**

<b>1. Biodiversity and <u>Natural</u> Resources</b>	<b>Answer(Yes/No/Not Applicable)</b>
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1.1	Would the proposed project result in the conversion or degradation of <a href="#">modified habitat</a> , <a href="#">natural habitat</a> or <a href="#">critical habitat</a> ?	Yes
1.2	Are any development activities proposed within a legally protected area (e.g. natural reserve, national park) for the protection or conservation of biodiversity?	No
1.3	Would the proposed project pose a risk of introducing invasive alien species?	No
1.4	Does the project involve natural forest harvesting or plantation development without an independent forest certification system for sustainable forest management (e.g. PEFC, the Forest Stewardship Council certification systems, or processes established or accepted by the relevant National Environmental Authority)?	No
1.5	Does the project involve the production and harvesting of fish populations or other aquatic species without an accepted system of independent certification to ensure sustainability (e.g. the Marine Stewardship Council certification system, or certifications, standards, or processes established or accepted by the relevant National Environmental Authority)?	No
1.6	Does the project involve significant extraction, diversion or containment of surface or ground water? For example, construction of dams, reservoirs, river basin developments, groundwater extraction.	No
1.7	Does the project pose a risk of degrading soils?	No
<b>2.</b>	<b>Pollution</b>	<b>Answer(Yes/No/Not Applicable)</b>
2.1	Would the proposed project result in the release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse local, regional, and transboundary impacts?	No
2.2	Would the proposed project result in the generation of waste that cannot be recovered, reused, or disposed of in an environmentally and socially sound manner?	No
2.3	Will the propose project involve the manufacture, trade, release, and/or use of chemicals and hazardous materials subject to international action bans or phase-outs? For example, DDT, PCBs and other chemicals listed in international conventions such as the Stockholm Convention on Persistent Organic Pollutants, or the Montreal Protocol.	No
2.4	Is there a potential for the release, in the environment, of hazardous materials resulting from their production, transportation, handling, storage and use for project activities?	No
2.5	Will the proposed project involve the application of pesticides that have a known negative effect on the environment or human health?	No
<b>3.</b>	<b>Climate Change</b>	<b>Answer(Yes/No/Not Applicable)</b>
3.1	Will the proposed project result in significant <sup>1</sup> greenhouse gas emissions? Annex E provides additional guidance for answering this question.	No
3.2	Is the proposed project likely to directly or indirectly increase environmental and social vulnerability to climate change now or in the future (also known as maladaptive practices)? You can refer to the additional guidance in Annex C to help you answer this question. For example, a project that would involve indirectly removing mangroves from coastal zones or encouraging land use plans that would suggest building houses on floodplains could increase the surrounding population's vulnerability to climate change, specifically flooding.	No
<b>4.</b>	<b>Social Equity and Equality</b>	<b>Answer(Yes/No/Not Applicable)</b>
4.1	Would the proposed project have environmental and social impacts that could affect negatively indigenous people or other vulnerable groups?	No
4.2	Is the project likely to significantly impact gender equality and women's empowerment <sup>2</sup> ?	Yes
4.3	Is the proposed project likely to directly or indirectly increase social inequalities now or in the future?	No
4.4	Will the proposed project have variable impacts on women and men, different ethnic groups, social classes?	No
4.5	Have there been challenges in engaging women and other certain key groups of stakeholders in the project design process?	No

<sup>1</sup> Significant corresponds to CO<sub>2</sub> emissions greater than 100,000 tons per year (from both direct and indirect sources). Annex E provides additional guidance on calculating potential amounts of CO<sub>2</sub> emissions.

<sup>2</sup> Women are often more vulnerable than men to environmental degradation and resource scarcity. They typically have weaker and insecure rights to the resources they manage (especially land), and spend longer hours on collection of water, firewood, etc. (OECD, 2006). Women are also more often excluded from other social, economic, and political development processes.

4.6	Will the project have specific human rights implications for vulnerable groups?	No
<b>5. Demographics</b>		
5.1	Is the project likely to result in a substantial influx of people into the affected community(ies)?	No
5.2	Would the proposed project result in substantial voluntary or involuntary resettlement of populations? <i>For example, projects with environmental and social benefits (e.g. protected areas, climate change adaptation) that impact human settlements, and certain disadvantaged groups within these settlements in particular.</i>	No
5.3	Would the proposed project lead to significant population density increase which could affect the environmental and social sustainability of the project? <i>For example, a project aiming at financing tourism infrastructure in a specific area (e.g. coastal zone, mountain) could lead to significant population density increase which could have serious environmental and social impacts (e.g. destruction of the area's ecology, noise pollution, waste management problems, greater work burden on women).</i>	No
<b>1. Culture</b>		
6.1	Is the project likely to significantly affect the cultural traditions of affected communities, including gender-based roles?	No
6.2	Will the proposed project result in physical interventions (during construction or implementation) that would affect areas that have known physical or cultural significance to indigenous groups and other communities with settled recognized cultural claims?	No
6.3	Would the proposed project produce a physical "splintering" of a community? <i>For example, through the construction of a road, powerline, or dam that divides a community.</i>	No
<b>2. Health and Safety</b>		
7.1	Would the proposed project be susceptible to or lead to increased vulnerability to earthquakes, subsidence, landslides, erosion, flooding or extreme climatic conditions? <i>For example, development projects located within a floodplain or landslide prone area.</i>	Yes
7.2	Will the project result in increased health risks as a result of a change in living and working conditions? In particular, will it have the potential to lead to an increase in HIV/AIDS infection?	No
7.3	Will the proposed project require additional health services including testing?	No
<b>3. Socio-Economics</b>		
8.1	Is the proposed project likely to have impacts that could affect women's and men's ability to use, develop and protect natural resources and other natural capital assets? <i>For example, activities that could lead to natural resources degradation or depletion in communities who depend on these resources for their development, livelihoods, and well-being?</i>	Yes
8.2	Is the proposed project likely to significantly affect land tenure arrangements and/or traditional cultural ownership patterns?	No
8.3	Is the proposed project likely to negatively affect the income levels or employment opportunities of vulnerable groups?	No
<b>9. Cumulative and/or Secondary Impacts</b>		<b>Answer(Yes/No/ Not Applicable)</b>
9.1	Is the proposed project location subject to currently approved land use plans (e.g. roads, settlements) which could affect the environmental and social sustainability of the project? <i>For example, future plans for urban growth, industrial development, transportation infrastructure, etc.</i>	No
9.2	Would the proposed project result in secondary or consequential development which could lead to environmental and social effects, or would it have potential to generate cumulative impacts with other known existing or planned activities in the area? <i>For example, a new road through forested land will generate direct environmental and social impacts through the cutting of forest and earthworks associated with construction and potential relocation of inhabitants. These are direct impacts. In addition, however, the new road would likely also bring new commercial and domestic development (houses, shops, businesses). In turn, these will generate indirect impacts. (Sometimes these are termed "secondary" or "consequential" impacts). Or if there are similar developments planned in the same forested area then cumulative impacts need to be considered.</i>	No

**Name of Proposed Project: PIMS 3066 SLM in the semi-arid region of Brazil (Sergipe)**

**A. Environmental and Social Screening Outcome**

Select from the following:

- Category 1. No further action is needed
- Category 2. Further review and management is needed. There are possible environmental and social benefits, impacts, and/or risks associated with the project (or specific project component), but these are predominantly indirect or very long-term and so extremely difficult or impossible to directly identify and assess. See Section 7 of the UNDP ESSP.
- Category 3. Further review and management is needed, and it is possible to identify these with a reasonable degree of certainty. If Category 3, select one or more of the following sub-categories:
- Category 3a: Impacts and risks are limited in scale and can be identified with a reasonable degree of certainty and can often be handled through application of standard best practice, but require some minimal or targeted further review and assessment to identify and evaluate whether there is a need for a full environmental and social assessment (in which case the project would move to Category 3b). See Section 8 of the UNDP ESSP.
- Category 3b: Impacts and risks may well be significant, and so full environmental and social assessment is required. In these cases, a scoping exercise will need to be conducted to identify the level and approach of assessment that is most appropriate. See Section 8 of the UNDP ESSP.

**B. Environmental and Social Issues** (for projects requiring further environmental and social review and management)

**1.1 Would the proposed project result in the conversion or degradation of modified habitat, natural habitat or critical habitat:** Yes. -The proposed project will directly address land degradation by building the governance framework to guide and oversee SLM practices to avoid; prevent and restore areas at risk of desertification; and build capacity and increasing access to finance for uptake of SLM practices. In areas that have been deforested as part of the process of restoring degraded land appropriate SLM practices such as soil conservation; water management and agroforestry production could be promoted where appropriate. In these areas the project is expected to produce positive impacts by positively modifying previously degraded habitats. The proposed SLM measures have been identified based on successfully experiences in other regions of the NE and the Prodoc Section IV Part IV Annex V2. Selection of specific practices in each farm will be defined in conjunction with the smallholders and on the level and type of land degradation in their property. Alternative practices and resulting benefits on degradation are included in the Prodoc table Part II section B2. Improvement of natural habitat will be achieved through increased enforcement of legal reserve required by Law in the Forest Code in Brazil.

**1.4 Does the project involve natural forest harvesting or plantation development without an independent forest certification system for sustainable forest management (e.g. PEFC, the Forest Stewardship Council certification systems, or processes established or accepted by the relevant National Environmental Authority)?** No. The project will support harvesting of non-timber forest products in some cases as part of an integrated approach to SFM/SLM but this will be undertaken once the environmental licensing processes is complete including the required assessment of environmental and social issues as per national standards and approved by the National Environment authority. In this case the authority is SEMARH the Sergipe Environmental Agency and in some cases IBAMA. A significant entry point for the project is precisely to strengthen the land use permitting process to enable SEMARH; IBAMA and municipalities, where appropriate, to ensure that land degradation issues are taken into account and guide appropriate land-uses to maintain the flow of services in agro-ecosystems and resultant environmental and social benefits. Specificities of how this will be undertaken are included in outputs 1.2 and 1.3 of the Prodoc and also in 2.1. Also the project will define LD baseline

measurements and strength the monitoring of approved land-use thereby has built in mechanisms to determine effectiveness of SLM measures.

**4.1 Would the proposed project have environmental and social impacts that could affect indigenous people or other vulnerable groups?** The project forms part of the *Sergipe mais justa* (more equal) programme and will thus place priority on areas where poverty is high and communities are most vulnerable to the socio-economic negative impacts of land degradation. By reducing land degradation to and maintaining flows of ecosystem services and goods in agro-ecological landscapes positive socio-economic benefits are expected in vulnerable groups (see section C)

**4.2 Is the project likely to significantly impact gender equality and women's empowerment?** See 4.1 Women are amongst groups most vulnerable to LD and loss of ecosystem service. The project will make every effort to address the specific challenges faced by women in the ASD of Sergipe, and to ensure that training and extension are adapted to women's needs and are carried out with adequate involvement of women. The text on Social Inclusion Prodoc page 30 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.

**7.1 Would the proposed project be susceptible to or lead to increased vulnerability to earthquakes, subsidence, landslides, erosion, flooding or extreme climatic conditions?** Yes the project is susceptible to climate change but will not lead to increased vulnerability. 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. The project will identify and promote the implementation of SLM and SFM practices and species that are adapted to a changing climate and will therefore help to reduce the vulnerability of farmers to climate change. In addition, an important part of the project involves increasing learning and information exchange on semi-arid production systems, including the expected impacts of climate change on such systems and existing practices that have produced positive results in this context and could be replicated. This risk is identified in the Risk section along with mitigation measures.

**8.1 Is the proposed project likely to have impacts that could affect women's and men's ability to use, develop and protect natural resources and other natural capital assets?** Yes. The project is designed to have positive impacts on women's and men's ability to use, develop and protect natural resources and other natural capital asset through direct and indirect capacity building. This is included in Outputs 2.1, 2.2 and 2.3 of the Prodoc that deal with direct support to implement SLM practices; training of extension officers incorporate SLM directives to desertification risk areas and increased access to finance respectively.

## C. Next Steps

**Social-economic:** This project is designed to provide significant socio-economic benefits to the inhabitants of Sergipe living in the ASD which comprises c75% of the state area. Through direct intervention and replication it will promote SLM practices in two municipalities in the most degraded areas of the Alto Sertao and within these in 3 agrarian settlements and one community. These SLM practices will provide direct socio-economic benefits that will improve the living conditions of 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. 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).

The benefits are expected to include greater food security resulting from increased agricultural productivity, crop diversification and adoption of more sustainable agricultural practices. They will also include reduced economic vulnerability and increased incomes through diversified activities (including crop diversification, beekeeping, sustainable forestry management, silvopastoral activities, etc.), enlargement of markets and increased access to credit for SLM activities, which could also reduce rural-urban outmigration. Indicators on increase crop production have been included.

The sites for on-the-ground activities will be in the municipalities with the largest new agrarian reform settlements that are suffering from the greatest pressures from drivers that degrade land but on the other hand also provide the best possibilities for engagement of municipal governments. This is because one of the great challenges Brazil faces is to reconcile agrarian reform with environmental sustainability. Also both Canindé do São Francisco and Poço Redondo, the largest of the seven municipalities in the SAS, which are home to dozens of settlements, are developing their Municipal Action Plans to Combat Desertification and Mitigation of the Effects of Drought (PAMs) using the model established by the PAE for the state's ASDs. Within these municipalities, priority will be given to on the ground work within at least one large older settlement and one newer settlement selected according to criteria regarding: 1) pressure on land use and water resources, 2) type of LD problems such as erosion, salinization and deforestation, 2) variability of potential SLM practices (to ensure a wide range) , 3) risk of environmental degradation (wood harvesting, overgrazing, inappropriate management), 4) existing forest cover, 5) proximity to forest cover (see Annex V.2). Also by working with families in the entire settlement/community piloting combinations of different SLM practices in a specific geographical area the project will be able to go beyond impact in individual lots and farms and determine the overall effect in landscapes. This can then be replicated through co-funding and baseline programmes to areas with similar characteristics further up-scaling SLM to larger landscapes.

Two municipalities, three agrarian settlements and one community outside settlements have been pre-selected. These municipalities and settlements, were proposed by the state government, rural extensionists and local social movements, and were visited by the team preparation working. In addition to land reform settlements, on-the-ground activities will be carried out in two other communities.

Field studies undertaken during the PPG phase pre-selected the following sites as the most appropriate for on-the-ground activities: 1) Jacaré-Curituba I-VIII, established between 1997 and 1999 in Poço Redondo and Candindé de São Francisco, with nearly 800 well-organized families practicing irrigation, livestock raising and dryland farming in 20,940 ha. 2) Florestan Fernandes, also in Canindé do São Francisco, with 31 families in 824 ha needing assistance to avoid grazing in protected areas. 3) Valmir Mota Kenio, with 33 families in 429 ha, near one of the largest remaining forest patches in the state. (4) A community under strong pressure from clearing: Poço Preto, in Poço Redondo, outside land reform settlements, which can be a model for more general replication, Within these sites a final selection of families will be completed in the first three months of the project and will take into account factors such as level of farmer interest, local organization, co-funding opportunities and partnerships. More details on field sites can be seen in the Annex V.2 of this project document.

**To ensure the above considerations are upheld in project implementation careful monitoring of consultations; final selection of farms and SLM practices must be undertaken along with the measurement of the social and economic benefits. Stakeholder participation needs also to be monitored. The role of the Regional Technical Commission and the local implementation agents is critical to local stakeholder participation and ensure social and economic benefits are optimized.**

- **Environment:** The project is designed to deliver environmental benefits primarily through increasing the uptake of SLM in degraded areas and thereby reducing soil erosion, reduced risk of degradation and desertification, and increased maintenance of biodiversity. It is expected to lead 98,000 ha and 42,000ha of agricultural and pasture land under SLM practices respectively and reduce loss of forest in Sergipe. The indicator of environmental benefits are included in the Prodoc Logical Matrix framework and include



- Area (ha) of rural properties in which recommended SLM practices are implemented in Sergipe (*see table 10 of Prodoc*)
- Average tree density in forest patches < 50 ha. increases to >1,500 tree/ha from baseline of < 800/ha
- Reduced deforestation rate in SE-ASD to 0.14% /yr (48 municipalities)
- Production of small-scale farms crops for the four field sites increases 30%
- 25% reduction of land degradation over 8,000 ha in 04 field sites : measured by (i) reduction of soil loss caused by water erosion < 5 t/ha; (ii) reduction of loss of soil carbon < 2 t/ha (figures to be confirmed when specific areas for SLM are finalised in the 4 preselected landscapes)

**To ensure the above targets are met and to deliver the expected environment benefits project implementation in year one needs to verify baseline data in selected farms as this has been estimated using data at larger scales. The project has included an output that will measure drivers of land degradation and monitor the impacts of SLM practices (see Output 1.3). This needs to be developed early in project implementation to identify best practices as well as others that may not be as beneficial as expected and hence should not be included in the suite of SLM practices being offered.**

**D. Sign off**

**Project Manager:** UNDP GEF RTA Helen Negret

**Date:** September 24, 2014

**PAC:** \_\_\_\_\_

**Date:**

**Programme Manager:** \_\_\_\_\_

**Date:**