PROJECT IDENTIFICATION FORM (PIF)
PROJECT TYPE: FULL SIZED PROJECT
TYPE OF TRUST FUND: GEF TRUST FUND
For more information about GEF, visit www.TheGEF.org

PART I: PROJECT IDENTIFICATION

Project Title:	Reversing Desertification Process in Susceptible Areas of Brazil: Sustainable Agroforestry Practices and Biodiversity Conservation		
Country(ies):	Brazil	**GEF Project ID:**[1]	5324
GEF Agency(ies):	FAO	**GEF Agency Project ID:**	616970
Other Executing Partner(s):	Ministry of Environment - Extractivism and Sustainable Rural Development Secretary - Desertification Combat and Land Degradation Dept. (MMA/SEDR/DCD)	**Submission Date:**	June 20, 2013
GEF Focal Area (s):	Multi-Focal Areas (Land Degradation and Biodiversity)	**Project Duration (months):**	48
Name of parent program (if applicable): • For SFM/REDD+	X	**Agency Fee ($):**	373,365

A. FOCAL AREA STRATEGY FRAMEWORK[2]:

Focal Area Objectives	Trust Fund	Indicative Grant Amount ($)	Indicative Co-Financing ($)
LD-2	GEFTF	525,050	2,300,000
LD-3	GEFTF	1,000,000	4,050,000
BD-2	GEFTF	1,414,650	5,682,000
SFM/REDD+-1	GEFTF	803,310	3,170,119
	Sub-total	3,743,010	15,202,119
Project Management Costs (LD- 76,251, BD- 70,729, SFM- 40,165)		187,145	764,681
	Total project costs	**3,930,155**	**15,966,800**

B. PROJECT FRAMEWORK

Project Objective: To arrest and reverse environmental degradation in areas susceptible to desertification in the Caatinga and Cerrado Biomes, secure the flow of ecosystem services, and promote integrated natural resource management, contributing to poverty reduction and generating environmental benefits

Project Component	Grant Type[3]	Expected Outcomes	Expected Outputs	Trust Fund	Indicative Grant Amount ($)	Indicative Co-financing ($)
1. Promoting Integrated Natural Resources Management (INRM) systems in production landscapes	TA	1.1 Traditional and improved INRM systems up-scaled at landscape level (61,000 – 220,000 ha) integrated in government programs (1state in Caatinga, 1 state in Cerrado)	1.1.1 Traditional and improved INRM systems identified, evaluated, and replicated at farm and landscape level. At least 6 experiences in SFM/SLM replicated 3 areas for each biome (Cerrado and Caatinga) – areas will be defined in PPG. 1.1.2 Agricultural products from INRM systems introduced in Government programs/projects and local agro-industries (at least 4	GEF	900,000	3,656,000

[1] Project ID number will be assigned by GEFSEC.
[2] Refer to the reference attached on the Focal Area Results Framework and LDCF/SCCF Framework when completing table A.

			products) 1.1.3 Guidelines developed for identification and evaluation of INRM systems strengthening state level departments and agencies capacities for promoting sustainable INRM systems in government programmes			
2. Promoting multiple-use forest management	INV	2.1 Improved SFM practices replicated at farm level (20,300-100,000 ha) through government forestry programs (1 state in Caatinga, 1 state in Cerrado)	2.1.1 Innovative small and large scale SFM practices identified, evaluated and replicated in selected forest management and experimental areas in Caatinga and Cerrado 2.1.2 Cerrado Biome included in the National Family and Community Forest Management Program. 2.1.3 Guidelines developed for SFM practices and monitoring protocols at farm level	GEF	900,000	3,600,000
3. Sustainable Forest Restoration	INV	3.1 Seed and seedling production capacity improved in Caatinga and Cerrado to support forest recovery in ASD (10 to 15% increase in production capacity in reference to the baseline – value to be confirmed in PPG) 3.2 Sustainably managed forest corridors established between protected areas (5 corridors Caatinga, 5 corridors in Cerrado covering 81,300- 320,000 ha	3.1.1 Existing networks of Forest Seeds of Caatinga and Cerrado strengthened 3.1.2 Private and public nurseries in ASD (10 number) with native seed and seedling production improved - Seed collectors (100) and nursery workers (100) in these nurseries will be trained and registered under the Law of the National System of Seeds and Seedlings- SNSM 3.2.1 Appropriate sites identified for restoration and establishment of the corridors 3.2.2 Participatory restoration and land-use plans developed for 10 areas identified as priority areas (5 for each biome). 3.2.3 Degraded landscapes restored through innovative and site appropriate forest regeneration, enrichment and planting techniques	GEF	843,010	3,400,000
4. Capacity development and awareness raising	TA	4.1 Improvement in capacity development indicators of key	4.1.1 Staff trained (50 state level, 200 municipal level, 100 extension) in innovative SFM and INRM practices to	GEF	900,000	3,600,000

		institutions at state and municipal level 4.2 Policymakers, other development partners and the general public are better informed about innovative SFM, biodiversity conservation and INRM practices (Indicator-assessments, specific assessment criteria and baseline to be defined during PPG)	improve the capacity and the formation of multiplier agents 4.2.1 Guidelines and briefs developed based on best practices and lessons learnt on innovative SFM and INRM practices 4.2.2 Awareness and educational materials developed and distributed through higher education institutes at state level 4.2.3 Targeted awareness raising program on Sustainable Forest Restoration practices delivered to local beneficiaries through TV, radio, cross-site visits, videos			
5. Project coordination, monitoring and evaluation	TA	5.1 Functional synergy with complementary initiatives leading to sustained and landscape level benefits 5.2 Project implementation based on results based management and application of project findings and lessons learned/best practices identified in future operations facilitated	5.1.1 Effective collaboration with complementary initiatives in Caatinga and Cerrado 5.2.1 Project monitoring system operational providing information on progress in meeting project outcome and output targets. 5.2.2 Midterm and final evaluation conducted, project best practices and lessons learned published and disseminated	GEF	200,000	946,119
			Sub-Total		3,743,010	15,202,119
Project Management Cost (LD- 76,251, BD- 70,729, SFM- 40,165)					187,145	764,681
			Total project costs		**3,930,155**	**15,966,800**

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

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Amount ($)
National Government	Ministry of the Environment (Biodiversity Fund – FunBIO; Forestry Fund)	In-kind Cash	7,000,000 8,566,800
NGO	*Articulação do Semi-Árido* (ASA) – Semi-Arid Articulation	In-kind	200,000
GEF Agency	FAO	Cash In-kind	40,000 160,000
Total Co-financing			15,966,800

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

GEF Agency	Type of Trust Funds	Focal Area	Country Name/ Global	Grant Amount ($) (a)	Agency Fee ($) (b)[2]	Total ($) c=a+b
FAO	GEFTF	LD	Brazil	1,601,301	152,124	1,753,425
FAO	GEFTF	BD	Brazil	1,485,379	141,111	1,626,490
FAO	GEFTF	SFM	Brazil	843,475	80,130	923,605
Total Grant Resources				3,930,155	373,365	**4,303,520**

[1] In case of a single focal area, single country, single GEF Agency project, and single trust fund project, no need to provide information for this table. PMC amount from Table B should be included proportionately to the focal area amount in this table

[2] Indicate fees related to this project.

E. PROJECT PREPARATION GRANT (PPG)[4]

Please check on the appropriate box for PPG as needed for the project according to the GEF Project Grant:

	Amount Requested ($)	Agency Fee for PPG ($)[5]
• No PPG required		
• (Upto) $50k for projects up to & including $ 1 million		
• (Upto) $100k for projects up to & including $ 3 million		
• (Upto) $150k for projects up to & including $ 6 million	130,000	12,350
• (Upto) $200k for projects up to & including $ 10 million		
• (Upto) $300k for projects above $ 10 million		

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

Type of Trust Funds	GEF Agency	Focal Area	Country Name/ Global	PPG ($) (a)	Agency Fee ($) (b)	Total ($) c=a+b
GEF	FAO	LD	Brazil	60,000	5,700	65,700
GEF	FAO	BD	Brazil	50,000	4,750	54,750
GEF	FAO	SFM/REDD+	Brazil	20,000	1,900	21,900
Total Grant Resources				**130,000**	**12,350**	**142,350**

[4] On exceptional basis, PPG amount may differ upon detailed discussion and justification with the GEFSEC.

[5] PPG fee percentage follows the percentage of the GEF Project Grant amount requested.

PART II: PROJECT JUSTIFICATION[6]

A. PROJECT OVERVIEW

A.1. Project description

Global environmental problems, root causes and barriers

The areas susceptible to desertification (ASD) in Brazil is about 1,340,863 square kilometers located in the Northeast region, spread across three biomes; Caatinga (100% of biome is considered ASD), some parts of Cerrado and a small area of Atlantic Forest. The region has high rainfall variability and different climate change scenarios conclude increased arid conditions with temperature increase varying from 2 ° to 5 ° C, leading to significant expansion of ASD. This project will focus on Caatinga and Cerrado biomes. Caatinga covers 806,000 square kilometers, extending across eight states. Caatinga has semi-arid climate, with frequent droughts, and is inhabited by about 15 million people. Due to the poor soils the biome has very low agricultural potential, and agriculture is primarily for subsistence with scattered areas, with fertile soils and well-developed irrigated agriculture. Cattle-raising has been stable in the region without any major changes in the past 15 years. Cerrado is a tropical savanna eco-region accounting for more than 21 percent of the country's land area. Though previously considered not suitable for large scale agriculture, with improved irrigation and soil correcting techniques, e.g. addition of phosphorous and lime, Cerrado has transformed into an area of intense and large-scale agricultural operations (particularly soybean). Cattle-raising is another major industry in the region; Cerrado contributes 70% of the beef cattle production in the country. Although the Caatinga and Cerrado biomes hold a total area of forest cover (34% of Brazil territory and 22% of Brazil forests) much smaller than the Amazon region (49 % of Brazil territory and 69% of Brazil forests), its importance lies in quite rich and highly endemic biodiversity, the much higher population density (18.5 inhabitants/ km^2 versus 4 inhabitants/ km^2), increasing dependence of the local communities on natural resources, and the resulting pressure on the resources and need for rational and sustainable management and utilization of the resources for both the well-being of the communities and the ecosystems.

The specific project areas, in the Caatinga and Cerrado biomes, will be identified during the PPG stage. This process will be coordination with UNDP, who are simultaneously developing a PIF for a Land Degradation project in the Caatinga (Sergipe State), and IADB, who are implementing a MFA GEF project with CCM, BD and SFM components. The selection of project area will ensure that there is no overlap with the project areas of these project areas. Under the joint coordination of MMA, who is involved in all three projects, there would be effective exchange of information and best practices between the projects.

Land Degradation

The deforestation rates in Cerrado and Caatinga are 0.69%/year and 0.28%/year respectively. In absolute terms this is considerable taking into account the size of the biomes, especially Cerrado. Each year, about 200,000 ha of forests are lost in Caatinga, whereas in Cerrado, it is about 1.4 million hectares every year. There have been very little scientific studies conducted on forest degradation in Caatinga, but the general understanding is that less than 5% of the Caatinga biome is considered highly conserved/preserved. The main causes of land degradation, deforestation and forest degradation in Cerrado and Caatinga are described below:

Illegal logging of native vegetation for woodfuel

The main driver behind illegal logging is the ever increasing demand for woodfuel. Industrial and commercial wood fuel demand in the northeast is about 7 – 8 million m3/year. Caatinga forest is almost the only source of supply as less than 5% of Atlantic Rain Forest is remaining and is fully protected, and reforestation is still restricted to the very south of the northeast region (Bahia). Only 10% of the wood fuel demand is met through sustainably managed forests. Though there is no data available on the use of wood originating from pollarding of cashew and mango plantations but it is estimated to less than 10%. The low value of wood fuel, especially from illegal sources, compared to fossil fuels, has resulted in that wood fuel has been a major source of energy since the 80's. About 80% of total wood fuel demand comes from unauthorized sources, leading to an uncontrolled deforestation in Caatinga. This situation is exacerbated by the lack of integrated and streamlined resource management guidelines and practices in these areas. An effort is needed to provide such management guidelines and practices to meet the woodfuel demands through sustainable sources.

Unsustainable Farming Practices

Agricultural and farming practices being adopted by both smallholder farmers and commercial agriculture is another driver for land degradation in Cerrado and Caatinga biomes. Smallholder farming makes a significant contribution to food production in Brazil, and it takes up almost 40% of the total productive area in the semi-arid region of the Northeast. Smallholder farming in these areas is rain-fed, with very limited technical inputs, and mainly subsistence based, and the predominant practice is slash and burn. Smallholder farmers generally do not allow enough fallow period for natural regeneration of soil productivity, leading to severe degradation of lands.

Expansion of commercial agriculture, especially in Cerrado, dependent on irrigation schemes and utilization of technical inputs, has also contributed to widespread unregulated and poorly planned clearing of native vegetation. In fact, commercial agriculture and cattle ranching make up approximately 60% of the productive area in the Northeast. Cattle rearing have contributed to increased degradation of pasture lands, mainly due to intensive grazing and resulting destruction of natural regeneration of vegetation.

As mentioned above, taking an integrated approach to developing and implementing guidelines at landscape level and community level implementation of practices would be an effective way to deal with these drivers.

Biodiversity Loss

Caatinga has 43 species of birds and animals (e.g. Celeus obrieni/Caatinga Woodpecker, Anodorhynchus leari/Lear's Macaw, Brazilian brocket deer/Veado catingueiro and 46 plant species that are in Brazil's list of endangered species. Yet only 1% of its habitats are protected, even though large swathes of lands have been designated as sustainable use areas. These sustainable use areas have faced the brunt of illegal logging and unsustainable resource utilization patterns, which has resulted in significant loss of biodiversity. Cerrado has 111 species of birds and animals (e.g. Priodontes maximus/Giant Armadillo, Chrysocyon brachyurus/Maned Wolf), and 132 plant species in Brazil's list of endangered species. The failure to conserve biodiversity is also accentuated by the fact that the protected areas are scattered throughout the biome without any connecting corridors, the endangered species are also found in areas adjoining the protected areas, the areas where deforestation and severe land degradation is taking place. There is a constant pressure on the forests both in the protected areas and surrounding areas due to continued illegal logging, and unsustainable land use practices (as described above). The only viable way of protecting the endangered species and conserving biodiversity is to arrest unsustainable natural resource exploitation in the areas around the protected areas, through promotion and implementation of SFM and INRM at community level, establishment of biodiversity corridors (taking into account the need to protect specific species), and improvement of local livelihoods. This will ultimately reduce the illegal incursions into the protected areas as well.

Barriers

In spite of various programs implemented in the region[7], the major barriers, that prevent sustainable resource management, reduction in pressure on natural resources, and mainstreaming biodiversity conservation in the semi-arid areas of the Northeast region, still exists, though considerably weakened by past and current initiatives.

1) Lack of appropriate policy and guidelines for INRM
   This is remarkable, as it is vital to qualify and formally recognize INRM practices, especially taking in to consideration the new Forest Code and the upcoming national Environmental Regularization Program (PRA). These practices are important and necessary to support environmental and forest restoration at local level. A coordinated effort at federal and state level will be necessary to achieve this. New alternatives and guidelines have to be prepared in order to integrate and recognize good SFM and INRM practices, taking in to consideration traditional integrated production systems, non-wood forest products, forest restoration and ecosystems services.

2) Complex and restrictive legislations and regulatory frameworks for SFM
   Forest management legislations, both at federal and state level, are complex and restrictive, and there are no clear directives to enable their implementation, especially at the local level. The processes associated

[7] Including GEF/IBRD project 'Caatinga Conservation and Sustainable Management Project' (2007-2012) and GEF/UNDP project 'Demonstrations of Integrated Ecosystem and Watershed Management in the Caatinga' (2004-2010)

with uptake and approvals of SFM plans at local level are bureaucratic and tedious. This discourages the adoption of SFM by smallholders and rural farmers.

3) Lack of inter-sectoral cooperation at state level
Though there has been excellent inter-sectoral cooperation and coordination at the national level in planning and preparing programmes and projects, at the state level it has been very limited, especially in terms of promoting the uptake of SLM and SFM practices by smallholders and rural communities through extension service undertaken by different sectors. The lack of inter-sectoral cooperation has also resulted in inability to generate confidence and support among civil society and local communities to adopt these practices.

4) Lack of institutional capacities to promote SLM and SFM at regional and state level
There are significant gaps in capacities of regional and state level institutions to promote SLM and SFM practices. The lack of capacities can be categorized as: a) capacities to provide technical assistance and guidance; and b) capacities to engage civil society and local communities in identifying and promoting best practices

5) Lack of sustained technical support at local level for forest and ecosystem restoration
Though in the past there have been efforts to enable forest restoration in the Northeast region, with some good successes, but the efforts have hit a snag once the initiatives/projects ended. It is important to identify and execute activities that would ensure sustainable forest restoration creating biodiversity corridors between PAs

6) Lack of identification and effective dissemination and uptake of best practices
Through the past projects/initiatives in the Northeast region, variety of SFM, biodiversity management and SLM techniques and practices were implemented. Some of these were highly successful and were shown to be very effective. But there has not been enough efforts to evaluate these practices, identify them as best practices, and effectively disseminate and promote them further.

7) Poor access to credit and lack of incentives
Existing credit facilities are not adequate to promote and support SFM and INRM practices at community level. Credit policies are defined at federal level by the Central Bank, and do not take in to account the needs and requirements of smallholders. Innovative and feasible credit and incentive schemes need to be developed and tested in order to support future scaling up of sustainable practices.

This project will focus on addressing the barriers 4,5 and 6. The land degradation PIF for Caatinga prepared by UNDP will focus on the other barriers.

Baseline scenario and associated baseline projects

The national government has implemented a variety of programs to address the threats described above to halt the land degradation, desertification and biodiversity loss in the Northeast region. These programs, described below, would serve as the baseline for this project.

National Program of Community and Family Forest Management (PMFC)
Ministry of Environment (MMA) and the Ministry of Agrarian Development (MDA) through the Brazilian Forest Service (SFB) have supported, since 2008, the National Program of Community and Family Forest Management (PMFC) with budget and financing coming from the National Fund for Forestry Development (FNDF) and National Environmental Fund (FNMA). The program coordinates funds and SFM actions for supporting traditional communities, smallholders and rural settlements. In 2011, PMFC were implemented on 37 rural settlements projects (1,190 families) in the Northeast States, focusing on;

- Promotion of sustainable fuelwood and charcoal production at community level
- Sustainable utilization of non-wood forest products (Caatinga fruits and Carnaúba wax)

The above activities were implemented across 44,777 ha. By the end of 2012, the initiatives expanded to the states of Piaui, Rio Grande do Norte and Ceara. Currently PMFC does not cover any areas under Cerrado; this project will support the expansion of PMFC in identified priority ASD of Cerrado.

Forest Investment Program (FIP)

MMA through the Forest Investment Program (FIP) has promoted sustainable and improved forest management in the Cerrado biome since 2012 (Brazil's Investment Plan), to combat deforestation, reduce GHG emissions and increase CO2 sequestration. The main baseline activities under the program would be through the following projects and activities.

Sustainable production in areas previously converted to agricultural use

- Capacity building for rural producers (through farmer associations)
- Capacity building for service and input providers
- Improved and increased access to credit for farmers

Forest information to support public and private sectors in managing initiatives focused on conservation and valorization of forest resources

- Collect and assemble bio-physical and socio-environmental data for the study of forest fragmentation and land use (this will feed in to the INRM planning process)

System of Permanent Plots (SisPP)

SFB also, through the SisPP supports regional networks active on consolidating and coordinating forest research and management techniques, these regional networks are independent, and are the main source of knowledge and capacity transfer at regional and state levels. These networks would form the basis for capacity building activities undertaken by the project in seed and seedling production.

Proposed alternative scenario, expected outcomes and components

Over the years various initiatives, programmes and projects, including GEF projects, have been implemented in the Caatinga and Cerrado biomes. The number of interventions illustrates two aspects: 1) the scale of the problem with land degradation and biodiversity losses, and the amount and strength of the barriers preventing from solving the problem at scale; and 2) the sheer size of the biomes. The environmental degradation faced by these biomes, and the environmental and socio-economic value they hold have been illustrated in this PIF, and various other PIFs, and reports. The efforts to arrest degradation, and promote integrated and sustainable natural resource management, and biodiversity conservation has had intermittent successes, in certain areas. But valuable lessons have been learnt. This project along with the other GEF funded projects in the biomes are following up on the previous efforts to ensure the lessons learnt and intermittent successes are turned in to more sustained and widespread practices.

Without the GEF resources allocated for this project, the key barriers/gaps that prevent reversal of degradation and INRM in the biomes will remain intact;

- SFM and INRM practices are constantly evolving with best practices and lessons emerging from experiences worldwide, including Brazil. But institutions, especially at state and regional level, with mandate to transfer these technical skills and knowledge to local communities, and engage effectively with civil society utilizing their ability and standing in local communities to transfer the knowledge, have poor capacities
- As mentioned above, there have been previous efforts to promote ecosystem and forest restoration in the biomes, but the efforts hit a roadblock once the projects/programmes ended. The sustainability of forest restoration initiatives needs to be addressed
- Also, as mentioned before, there have been intermittent successes in addressing degradation and promoting SFM/SLM practices in the biomes. But there has been almost no effort to capture these best practices, disseminate and replicate in other areas of the biome.

The project has five project components and these components would address the above issues and generate significant environmental benefits. The projects components and the environmental benefits generated by them are described below.

Component 1: Promoting INRM systems in production landscapes

Under this component traditional and innovative INRM systems (specific agroforestry systems and traditional integrated production systems incorporating biodiversity conservation and management) will be identified, and assessed for their suitability in the project areas including socioeconomic and environmental feasibility. Successful and feasible systems will be replicated at the farm level (the specific areas for replication will be decided during the PPG stage through stakeholder consultations and other assessments). As part of the up-scaling strategy, Civil society partners and local extension agencies will be involved in facilitating the uptake and implementation of the practices. Support and incentive mechanisms to encourage local farmers to adopt

improved INRM practices will be provided. Agricultural products from the areas with improved INRM practices, will be introduced in government programmes (for example: National Program to Strengthen Family-Based Agriculture, Program of Price Guarantee to Family-Based Agriculture), and promoted through local agro-industries, strengthening the market link as an important driver for further up-scaling. This would demonstrate the economic benefits associated and raise the confidence among local communities and farmers to adopt the INRM practices in a continued and sustainable manner. The economic benefits, in the form of increased income, would be generated through increased market access resulting in more sales of and better prices for the products. Scaling-up of the production in the sites through INRM practices (built on successful demonstration of afore mentioned economic benefits) will eventually lead to increase in local employment opportunities. Through the experiences gained in implementing the above activities, guidelines (that includes criteria) for identifying, evaluating and up-scaling INRM systems at state level will be developed.

Component 2: Promoting sustainable multiple-use forest management
This component will replicate and promote successful SFM practices at different levels: community, small, medium and big landowners, industries. The project will identify innovative SFM practices, through previous experiences in the biomes and elsewhere, evaluate them for suitability in areas identified for intervention, and replicate them at different scales. Specific areas for replication at different level will be confirmed at the PPG stage. As described above under component 1, uptake of improved and innovative SFM practices will be facilitated and supported by civil society and local extension agencies. Continued technical assistance will be provided at farm level to ensure successful implementation of the identified best practices and effect changes in the current forest management regimes.

Under this component, areas under Cerrado biome will also be included in the National Family and Community Forest Management Program to support further up-scaling, at present Cerrado is not covered under the prgoram . Through the experience gained through the project, and lessons from previous projects, guidelines for implementing and monitoring innovative SFM practices at farm level will be developed.

Component 3: Support to Sustainable Forest Restoration
This component will focus on two aspects: 1) restoring degraded areas that would also turn in to corridors connecting protected areas that are scattered across the biomes; and 2) ensuring the sustainability of the restoration efforts. The networks for forest seeds in Caatinga and Cerrado would be strengthened; this includes the Centers for Restoration of Degraded Land (CRAD), MMA, *Articulação do Semi-Árido* (ASA) - Semi-Arid Articulation, and the previous initiatives like the Caatinga and Cerrado Forest Seed Networks (MMA, UNDP). The project will also identify the human resources in these networks for training. Seed collectors and nursery workers in the nurseries identified will be trained and their registration will be facilitated under the Law of the National System of Seeds and Seedlings- SNSM. The strengthened networks will ensure the continued support for forest restoration and availability of high quality seeds.

The second part of the component involves identification of areas for restoration. The identification will take into account the need for the restored areas to act as corridors between protected areas that are generally splintered and scattered around the biomes. Participatory landscape level restoration plans will be developed that take into account the socio-economic needs of communities (for example: species used for restoration will be adequate for responding to fuel wood needs), and the biodiversity conservation and management. These consultation processes from the outset, and setting up achievable and clear socio-economic targets through the restoration, will ensure the sustainability of the restoration process. Restoration techniques will include improved forest regeneration, community-based enrichment and planting techniques. Enrichment and planting across the project areas would involve employment generation at community level. Exact area to be restored will be ascertained during the PPG, 10 corridors will be created connecting protected areas.

Component 4 Capacity development and awareness raising
Under this component capacities of key institutions at state and municipal level mandated to assist local communities in uptake of SFM and INRM practices will be enhanced. This will be achieved through providing training on innovative SFM and INRM practices to multiplier agents. Another significant part of this component would be the development of guidelines and briefs based on the replication experiences achieved through Components 1 and 2, the briefs and the guidelines will also take in to account valuable lessons learnt through previous projects (including GEF projects) in the biomes. The guidelines will be utilized by the UNDP/MMA land degradation project proposed for Caatinga (PIF recently submitted) in developing policies and frameworks. The briefs prepared will be targeting policy makers to ensure the lessons learnt and best

practices are taken in to account while planning programmes and drafting policies and regulations. Raising awareness among wide population will be achieved through awareness campaigns on sustainable forest restoration through various mass-media targeting mainly rural communities. Awareness and educational materials will be developed to raise awareness among youth and students, the materials will be distributed through higher education institutes.

Component 5 Project coordination, monitoring and evaluation

As many initiatives are going on in the biomes to address the difficult natural resource situation of the area, it is essential for the project to establish collaboration and generate synergy through constant exchange of information and lessons learnt. Further this component will support the systematic recollection of data for project outcome indicators to allow for results-based-management.

Incremental cost reasoning

Biodiversity Baseline

There are efforts under PMFC and FIP to improve sustainable management and utilization of natural resources in the areas around the protected areas, which would ultimately reduce significant pressure on the protected areas and resources in the protected areas. But these efforts do not take in to account the biodiversity conservation and management needs in a streamlined manner, and have been implemented in a piecemeal fashion without considering implications at landscape level. For example, the protected areas are all scattered with no corridors connecting them.

GEF Alternative

Building on previous experiences the incremental GEF investments will support the up-scaling of INRM systems and practices taking in account biodiversity conservation and habitat connectivity concerns in a systematic manner. Land and resource use planning and implementation will happen at landscape level seeking integrated solutions. Restoration efforts would be to ensure connection between different protected areas, further strengthening the conservation efforts.

SLM/SFM Baseline

Activities under PMFC and FIP are focusing on improving sustainable forest management and forest product utilization at community level, address forest degradation and building capacities and availability of forest information for decision making at local level. But the activities are being implemented without a systematic focus at up-scaling already successful experiences from elsewhere. The efforts to reduce forest degradation has also been taking place without due consideration being given to the linkages with agricultural production and practices. There has also been very little done to restore the degraded areas.

GEF Alternative

Through this project successful and innovative SFM practices adapted to the individual local contexts will be implemented in a coordinated manner, and at a significantly larger scale. And these efforts will be a part of the INRM planning and systems being delivered through the project. Forest restoration will be carried out focusing at meeting conservation and sustainable utilization of resources as well as the socio-economic needs of the local communities.

Global environment benefits

- Incorporating biodiversity conservation in to INRM systems up-scaled at landscape level (61,000 to 220,000 ha) integrated in government programs (1state in Caatinga, 1 state in Cerrado)
- Improved SFM practices replicated at farm level 20,300-1000,000 ha,
- creation of 81,300 -320,000 sustainably managed corridors will connect protected areas and conserve globally important species at the landscape level
- With improved SFM and INRM practices, pressure on forests and forest resources will be drastically reduced and degradation processes reversed. This will sustain the flow of important ecosystems services
- Reduced degradation and increase in forest cover will result in reduced carbon emissions and enhanced carbon storage (11.5 million – 45.6 million tones CO2eq in increased carbon stocks* - . estimated carbon benefits will be recalculated during PPG when the area of restoration and the area for implementation of SFM will be ascertained).

*Calculation of carbon benefits

Forest areas to be covered through the project:

Scenario	Low range (in ha)	High range (in ha)
Caatinga	60,900	240,000
Cerrado	20,400	80,000
Total	**81,300**	**320,000**

According to IPCC estimates, the carbon lost due to deforestation in Caatinga and Cerrado are 40.60 tC/ha and 33.48 tC/ha.

In the areas covered under the project, through the project outputs, the cumulative carbon stocks from avoided deforestation would be as follows;

Scenario	Low range (tC)	High range (tC)
Caatinga	2,472,540 (60,900 x 40.60)	9,744,000 (240,000 x 40.60)
Cerrado	682,992 (20,400 x 33.48)	2,678,400 (80,000 x 33.48)
Total	**3,155,532**	**12,422,400**

Converting the ton Carbon to tCO2eq, the project will deliver carbon benefits ranging from 11,580,802.44 tCO2eq to 45,590,208 tCO2eq

Innovativeness, sustainability and potential for scaling up

The project is innovative as it will focus at up-scaling of traditional INRM systems that have generated positive results, and further improve them through experiences and lessons learnt elsewhere, and adopt them to the specific local contexts.

Sustainability will be ensured through the tangible economic benefits attained by the local communities by taking up improved management practices, and through full and active participation of local communities and their representatives in both the project design and implementation.

The project is from its outset focusing at up-scaling of best practices already proven to be successful in the Caatinga and Cerrado biomes. The project will systematically identify and evaluate these practices and improving them further adapting them to local conditions, and create incentives for socioeconomic drivers for their uptake. The project will also develop guidelines and monitoring protocols for INRM systems and practices which would provide systematic inputs for continued improvements of up-scaling strategies for the Caatinga and Cerrada biomes and similar landscapes throughout Brazil, and in the region.

A.2 Stakeholders

The project will be supervised and monitored by a Steering Committee composed of representatives from the following institutions: MMA: SEDR/DCD, IBAMA, ICMBio, SFB; MDA, ASA, INSA, BNB, ASBRAER, EMBRAPA, ABEMA. The Steering Committee will guide the coordination and core project team in implementing the actions and promote ongoing assessments and planning. It will also be responsible for establishing guidelines for institutional coordination and the integration of results, recommendations and strategies in policies for the sector and programs of government. The roles of key stakeholders in the project are outlined below:

MMA (DCD/SEDR, SFB) - The Ministry of Environment, through the Secretary of Extraction and Sustainable Rural Development and its Department for Combating Desertification (MMA/SEDR/DCD) has the following functions: i) coordinating the project, ii) coordinating with agencies, entities and actors involved directly and indirectly in the planning and execution; iii) coordinating internalization of Fund resources: Climate Fund, National Fund for Forest Development (FNDF) and Caatinga Fund - in the process of creation. The project will also have a regional coordinator and a technical team, based in a strategic center in the Northeast region (Recife, Natal and Campina Grande).

MDA - The Ministry of Agrarian Development, which is mandated to promote sustainable rural development especially in relation to land reform settlements and peasant farmsteads: i) coordination of the CFMP in conjunction with MMA; ii) articulation of ATEF and training, with special emphasis on the outcome of the training component 4.

SFB - The Brazilian Forest Service, as a branch of the structure of the MMA support forest management activities in the Caatinga, and is the managing agency of the FNDF. Thus, the following duties are carried out: a) evaluation exercises of community forest management; b) promotion and collection and systematization of technical and scientific information and forestry statistics; c) strengthening of RMFC via

FNDF; d) development of technical standards, norms, interstate protocols for PRA's, and; e) support capabilities to ATEF via FNDF.

IBAMA - The Brazilian Institute of Environment and Natural Resources will have the following functions: i) participation in defining the technical and regulatory frameworks, ii) co-ordination with OEMAs to internalize the PRA technical standards and developing a normative framework

ICMBio - The Chico Mendes Institute for Biodiversity Conservation will develop the regulatory actions aimed at harmonizing licensing procedures of productive activities in the Conservation Units of Sustainable Use (Environmental Protection Area, especially) and in the buffer areas of the Conservation Units of Integral Protection with the licensing agencies.

INSA - National Institute for the Semi-Arid, Research Unit of the Ministry of Science and Technology for the region, is focused on knowledge management. It will have important roles in achieving the project objective, in particular: i) to support studies and research techniques, ii) to support knowledge management for systematization and dissemination of sustainable use techniques to combat desertification and biodiversity conservation; iii) possibly host the project through a cooperation agreement.

EMBRAPA - The Brazilian Agricultural Research Corporation will be essential partner in project implementation, particularly with regard to: i) support the implementation of the technical components of the project, indicating developments, results and transferring knowledge, providing technical and scientific support, ii) collaborate in deployment of anchor areas, iii) support the technical capabilities; iv) participate in the development of parameters, guidelines and technical regulations.

OEMAs - Members - The State Environmental Agencies have taken, since 1996, the licensing and approval processes for exploration and use of forest resources in public and private areas. The role in the project will be to; i) solve the obstacles to the implementation of technical activities in the field, ii) to articulate institutional policies within their respective states, promote the participation of production sectors for the adoption of techniques and processes resulting from the components of the project, iii) to discuss, harmonize and internalize the protocols for implementing common technical actions.

ABEMA - The Brazilian Association of Environment Organizations brings together two representatives from each state of OEMAs, therefore, it is an instance of political discussion, liaison and conflict resolution between the Union and the States and between the States. ABEMA will therefore play the following roles: i) Act as the link between the Union and the States for the implementation of technical components, ii) Facilitate between the OEMAs and the project especially for the component 4, iii) support the internalization of the project results in the programs of state governments.

ASBRAER - The Brazilian Association of State Technical Assistance and Rural Extension (ASBRAER) will also be involved in the implementation of project activities, especially those related to combating desertification, maintenance of biological diversity, forest management, community and family, and environmental regulation.

ASA - The NGO Articulation in Brazilian Semiarid *(Articulação do Semiárido –ASA)*, with extensive experience in community development in the region, will have the following functions: i) assist in the implementation of technical components, directly in the field, ii) support capacity building and mobilization of rural communities, iii) support actions aimed at promoting exchanges with African countries and Latin America.

BNB - The Bank of Brazilian Northeast proposes to: i) promote and adjust lines of credit for sustainable forest activities, ii) operationalize the Fund Caatinga iii) to enable development agents though promotion of sustainable practices in its policies of rural development.

Other stakeholders in the project would be;

FAO- GEF Executing Agency-Responsible for providing technical assistance and overall management and supervision of the project implementation;

Local communities- Main project beneficiaries.

Civil society (including local NGOs and CBOs) - Providing support in community mobilization, building capacities, dissemination of knowledge. Given their role in community mobilization, local CSOs will be involved as project partners at community level. During project preparation phase, individual CSOs, which are reputable, trusted by local communities, efficient, and located in project sites, will be identified and their involvement in the project will be insured. Potential of the identified CSOs to act as co-financiers (through in-kind support) for the project will be seriously explored;

Academic and research institutes- Providing support in implementing training programmes and awareness raising.

A.3 Risks

Risk	Risk probability	Mitigation
Allocation of federal funds for strategic actions	L	Promotion of SFM, INRM and forest restoration will depend on the allocation of funds by different ministries within their programs. Success will depend on sufficient and coordinated allocation of these funds (eg Climate Fund, Technical Assistance). Concerned ministries will be members of the Steering Committee to facilitate the incorporation of project activities in their own programs, thus enabling budget allocation. Risk probability is low as several funds are earmarked to support combat desertification and rural development.
Slow uptake of policies and strategies by State administrations and their OEMAs (State Environmental agencies)	M	Environmental policy and forest administration were decentralized in 2006 and the federal states were given large autonomy. Institutional and legal framework varies between States while issues of forest degradation and sustainable NRM are similar across the states. The project/MMA, in close cooperation with the Brazilian Association of State Environmental Agencies (ABEMA) will involve OEMAs directly in the execution of project activities and especially in the preparation of guidelines for establishing standard policies and strategies.
Issues of up-scaling good practices associated with (i) lack of awareness by local stakeholders on alternative credit available from different national funding sources to support NRM and (ii) slow operative procedures to access credit line and inability to adjust credit lines to the needs of local stakeholders	H	This risk may be reduced through project support to (i) training of professionals and managers working in technical assistance and rural extension (Gov and NGOs), including themes of eligibility criteria and credit operating procedures for different national funds available, so as to demonstrate facilitate financing INRM (as grant and small loans) and (ii) support dissemination activities to raise awareness among NRM users on funding availability and operational procedures.
Rural development programs do not promote SFM and INRM practices.	H	Traditional technical assistance emphasizes conventional agriculture that often requires deforestation and land use changes. The project will seek to work paradigm shifts and behavior also in terms of technical assistance. The project will coordinate with the National Association of Technical Assistance and Rural Extension (ASBRAER) and the Ministry of Agrarian Reform (MDA) and play an important role in the articulation and orientation of SFM and INRM in technical assistance programs. The project will promote direct links between training provided and implementation in the field.
Climate change having adverse impact on/hampering the livelihood and resource management benefits delivered by the project	L	Identification, evaluation and replication of INRM systems, and innovative SFM practices in the project would incorporate climate resilience as a key criterion. In particular resilience to a hotter and dryer future will be needed in the project area

A.4 Coordination with other relevant GEF financed and other initiatives.

The proposed project will build on different GEF funded projects previously undertaken in the Northeast

(2007-2012) and the GEF/UNDP project 'Demonstration of Integrated Ecosystem [illegible] Management in the Caatinga' (2004-2010). These projects demonstrated important INRM and SFM practices. However, after this extensive pilot and demonstration phase, no systematic work has been done on evaluating effectiveness and sustainability of these practices including socio-economic drivers for their optake or no uptake and prepare for their further up-scaling. The proposed project will already during the full project preparation start on an initial evaluation of pilot experiences and practices and prepare a strategy for up-scaling in strategic areas to be implemented by the project.

Coordination with national initiatives and current GEF projects are described below and will be further developed during full project preparation under the coordination of MMA..

National Initiatives

The project is convergent with initiatives aimed at compliance with international agreements (Climate Change, Desertification, Biological Diversity), and various government policies, state and federal programmes: National Action Program to Combat Desertification and Mitigating the Effects of Drought (PAN-BRASIL) and related state programs (PAEs), Plans of Action to Prevent and Control Deforestation (*PP Cerrado* and *PP Caatinga*), National Program on Biological Diversity (PRONABIO), the National Family and Community Forest Management Programme (PMCF), Environmental Regularization Program (PRA) - which will be implemented by the Union and OEMAs of each federated States. This project will coordinate with the activities of the programmes outlined above, and would ensure synergy and coordination at every possible juncture.

GEF Projects

This project will coordinate with the following two GEF projects;

Recently cleared (PIF) IADB/MMA/ICMBio/JBRJ project titled 'Consolidation of National System of Conservation Units (SNUC) and Enhanced Flora and Fauna Protection-GEF TER'. This project is also proposing to restore landscapes in Caatinga, coordination will mainly be in choosing the project areas, and iterative learning between the projects mainly related to planning and implementing restoration activities.

Recently UNDP/MMA submitted a PIF titled 'Sustainable Land Use Management in the Semi-arid Region of North-east Brazil (Sergipe)'. This project focuses predominantly on strengthening governance framework-state level policy and planning for SLM, cross-sectoral collaboration, land-use licensing processes and enforcement for LD hotspots. The field level implementation of this project, increased uptake of SLM practices, will be exclusively in Sergipe, FAO/MMA project will be complementing the said project in terms of providing field level experiences and guidelines, feeding in to the policy processes undertaken under the UNDP/MMA project. And the FAO/MMA project's field level implementation will not cover Sergipe, to avoid any overlap of areas.

B. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

B.1 National strategies and plans or reports and assessments under the relevant conventions

In 1997, Brazil ratified the UN Convention to Combat Desertification (UNCCD) and in December 2004 it launched the National Action Program to Combat Desertification and Mitigate the Effects of Drought (NAP-Brazil). More recently (2009-2011), several states included in Areas Susceptible to Desertification-ASD (PE, RN, SE, MG, PI and CE) prepared their State Program of Action to Combat Desertification and Mitigate the Effects of Drought (PAE). The project is aligned with both NAP-Brazil and PAEs and will contribute directly to the achievement of their main goals:

1. Reduce poverty and inequality;
2. Sustainable expansion of productive capacities;
3. Preservation, conservation and sustainable management of natural resources;
4. Democratic government and institutional strengthening.

In 1994, Brazil signed the Convention on Biological Diversity – CBD and in 2002 promulgated the National Biodiversity Policy (NPB). Restructuring during 2003 resulted in the National Program on Biological Diversity (PRONABIO) and the National Commission of Biodiversity (CONABIO). The project will contribute directly to components 2, 3 and 7 of the NPB and indirectly to component 7:

1. Biodiversity knowledge;
2. Conservation of biodiversity;

3. Sustainable use of biodiversity;
4. Monitoring, assessment, prevention and mitigation of impacts;
5. Access to genetic resources and to traditional knowledge and benefit sharing;
6. Education, public awareness, information and dissemination on biodiversity;
7. Strengthening of legal and institutional framework for biodiversity management.

More specifically, the sustainable use of biodiversity is also the overall goal of the National Plan for the Promotion of Socio-biodiversity Production with emphasis on non-timber products, added value and sustainable markets.
The project is also aligned with the National Action Plans to Prevent and Control Deforestation in the Cerrado and Caatinga biomes which, based on common causes and consequences, propose a series of similar interventions, mainly SFM, INRM, capacity building and strengthening of policies and regulatory framework.
The project will contribute directly to SFM at family and community level in Caatinga and Cerrado contributing to the 2012-2015 Action Plan of the Federal Program of Family and Community Forest Management. In a broader context, the Project is consistent with the National Policy on Climate Change which, besides protection, preservation, conservation and restoration of environmental resources, aims at the reduction of GHG emissions and the promotion of climate change adaptation.
The new Forest Code (Federal Law 12.651/2012) brings substantive changes among which is the regularization of deforestated areas, especially in areas of permanent preservation and the legal reserve, planned to be implemented by means of the Environmental Regularization Program (PRA). The project will contribute directly with supporting activities to the PRA (institutional arrangements, guidelines, native seed supply and seedling production).
The project will be linked directly to the funds created to address desertification and land degradation in ASD, e.g. National Fund on Climate Change and, more specifically in the Caatinga biome, the Caatinga Fund.

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

The proposed project is consistent with the FA Objective 2 of the GEF-5 Land Degradation Results Framework. In particular, the project will contribute to the achievement of Outcome 2.2 "Improved forest management in drylands" by enabling communities and individual farmers to adopt technologies and good practices for sustainable use and exploitation of forest resources in integrated production systems serving traditional and renewable energy sources and at the same time promoting the improvement of quality of life of vulnerable rural population. The project will also support the LD-2 Outcome 2.3 by promoting SFM practices for sustainable wood-fuel production in order to combat deforestation and maintain forest cover and biodiversity. In addition, the project will contribute to the LD-3 Outcome 3.2 and Outcome 3.3 through the strengthening and promotion of traditional and improved INRM systems and the support to sustainable forest regeneration, enrichment and restoration as intended by the recently launched national Environmental Regularization Program (PRA). The proposed project is also consistent with the FA Objective 2 of the GEF 5 Biodiversity Results Framework and will contribute to the achievement of Outcome 2.1 incorporating biodiversity conservation in sustainable use of forests and traditional INRM systems and strengthening native seed and seedling production. This will include the establishment of biodiversity corridors between protected areas through reforestation as part of improved land-use planning incorporating valuation of biodiversity.

The project will mainly contribute to the following Aichi Targets;

Target	**Corresponding and relevant indicator**
Target 5	Trends in proportion of land affected by desertification
Target 7	Trends in area of forest ecosystems under sustainable management
Target 14	Trends in benefits that humans derive from selected ecosystem services, trends in delivery of multiple ecosystem services and trends in economic and non-economic values of selected ecosystem services

In addition, the project is aligned with the FA Objective 1 of the GEF 5 Sustainable Forest Management/REDD+ Results Framework by promoting good management practices and improved institutional arrangements and capacity, thus contributing to Outcomes 1.1, 1.2 and 1.3

B.3 FAO's comparative advantage for implementing the project

FAO possess high level technical skills in forestry globally (Forestry Department at FAO Headquarters) and regionally (Regional Offices for Latin America and Caribbean in Santiago, with international technical staff specialized in forestry) and Brazil. FAO initiated its operations in Brazil in 1949, four years after its creation. FAO's technical cooperation with the Brazilian government in forestry dates back to the late 1950s, with the holding of a diagnosis of the Amazon forest industry. In the following decade, the organization has supported the creation and deployment of the first graduate forestry faculty in the country and continued cooperation in the 1970s, through its support to the Project Development and Forestry Research (PRODEPEF, BRA/045), training of EMBRAPA technical staff assisting a national program for forest research. In the 80's FAO supported the semi-arid region through the Forestry Development Project in Northeast Brazil. A new project for the region was established in the 90s. Both the projects in the semi-arid areas generated significant benefits. The first cooperation project laid the groundwork for the implementation of sustainable forest management in the Caatinga; developed criteria and indicators that guided the first MFS norms on the biome and the financing of management activity by the Bank of Northeast Brazil. Subsequently, the UNDP / FAO project was strategic planned, in the midst of the National Forestry Program - PNF to support forest management in rural settlements in the states of Pernambuco and Paraiba (2006/07). FAO also contributed to the formulation of RAD in the São Francisco River Basin

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

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

NAME	POSITION	MINISTRY	DATE *(MM/DD/YYYY)*
Rodrigo Martin Vieira	General Coordinator for External Financing, GEF Focal point	Ministry of Planning, budget and Management	31 AUGUST 2012

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

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

Agency Coordinator, Agency name	Signature	Date *(MM/DD/YYYY)*	Project Contact Person	Telephone	Email Address
Gustavo Merino Director Investment Centre Division Technical Cooperation Department FAO Viale delle Terme di Caracalla (00153) Rome, Italy TCI-Director@fao.org		20 June, 2013	Madankumar Janakiraman, Forestry technical expert, FAO HQ And Marcello Broggio, Project task manager, FAO Brazil	+39 065704464	Madankumar.Janakiraman@fao.org Marcello.Broggio fao.org
Barbara Cooney FAO GEF Coordinator Email: Barbara.Cooney@fao.org Tel: +3906 5705 5478					