



PROJECT IDENTIFICATION FORM (PIF)

PROJECT TYPE: Full-sized Project

THE LEAST DEVELOPED COUNTRIES FUND FOR CLIMATE CHANGE
(LDCF)

Submission Date: June 2010
Resubmission November 2010

GEFSEC PROJECT ID:

GEF AGENCY PROJECT ID:

COUNTRY: Sao Tome and Principe

PROJECT TITLE: Strengthening the adaptive capacity of most vulnerable Sao Tomean's livestock-keeping households

GEF AGENCY: AfDB

OTHER EXECUTING PARTNER: Directorate of Animal Husbandry

GEF FOCAL AREA: Climate Change

INDICATIVE CALENDAR (mm/dd/yy)	
Milestones	Expected Dates
Work Program (for FSP)	
CEO Endorsement/Approval	June 2011
Agency Approval Date	July 2011
Implementation Start	August 2011
Mid-term Review (if planned)	
Project Closing	December 2013

A. PROJECT FRAMEWORK

Project Objective: Improve resilience of the livestock systems in support of the productivity of stockbreeding.								
Project Components	Invest TA, STA	Expected Outcomes	Expected Outputs	Indicative LDCF Finan		Indicative CoFinancing		Total (\$)
				(\$)	%	(\$) ^a	%	
Component 1: Strengthen the adaptive capacity of most vulnerable livestock-keeping households	Invest	Local stockbreeders strengthened to effectively cope with climate change and variability.	1.1. A system of access to credit-in-kind is operational and enables the stock breeders to acquire resilient breeds to CC and set up integrated sustainable livestock seed projects (breeds, pastures, fodders and waste management) 1.2. Effective models for community based management of endemic livestock and their habitat are established 1.3. Skills of feed conservation for dry season supplementation are imparted into smallholder farmers 1.4. The adaptive capacities of beneficiaries in terms of organization, production, processing and marketing are strengthened	950	23	B1:3.270 T:3.270	77	4.220
Component 2: Mainstreaming adaptation options into livestock national development strategy	TA	Knowledge on adjusting national development processes to fully incorporate livestock's climate change risks and opportunities generated and mainstreamed across all levels	2.1. A functional CC sub-committee is set-up in the directorate of animal husbandry 2.2. A geo-referenced database on livestock vulnerability to CC is developed and regularly up-dated 2.3. A sectoral climate resilient policy in livestock developed for decision making use 2.4. Awareness and understanding on the need for integrating CC in livestock strategy are enhanced at local and central levels	410	14	B1:1.20 B2:1.265 T:2.465	86	2.875
Component 3: Building indigenous demonstration capacity on livestock systems adaptations to climate change	STA	Stockbreeders most vulnerable to climate change are able take central stage in demonstration to enhance their long-term capacity for adaptation	3.1. Targeted participatory demonstration on livestock-based adaption are conducted, among others biogas and compost approaches and technology , in at least 3 integrated livestock resources centers (region north, central and south) 3.2. Findings and lessons learned are documented and disseminated 3.3. Knowledge is put into action through	550	53	B1: 490 T: 490	47	1.040

		experimentation /Demonstration activities					
Project management			75	05	B1:775 B2:650 T:1.425	95	1.500
Total project costs			1.985		7.650		9.635

B1: Baseline 1; LDSP-II

B2: Baseline 2; AAP project

T: Total

B. INDICATIVE CO-FINANCING FOR PROJECT BY SOURCE AND BY NAME
(in parenthesis) if available, (\$)

Sources of Co-financing	Type of Co-financing	Project
Project Government Contribution	Hard Loan	875 000
GEF Agency(ies)	Grant	4,860 000
Bilateral Aid Agency(ies)	Grant	1,915 000
Multilateral Agency(ies)	Unknown at this stage	-
Private Sector	Unknown at this stage	-
NGO	Unknown at this stage	-
Others	Unknown at this stage	-
Total co-financing		7 650 000

C. INDICATIVE FINANCING PLAN SUMMARY FOR THE PROJECT (\$)

	Previous Project Preparation Amount	Project	Total	Agency Fee
LDCF	125 250	1 985 000	2 110 250	211 000
Co-financing	132 250	7 650 000	7 782 250	
Total	257 500	9 635 000	9 892 500	211 000

D. FOR MULTI AGENCIES/COUNTRIES (IN \$) THIS SECTION DOES NOT APPLY TO THIS PROJECT

GEF Agency	Country Name	(in \$)		
		Project	Agency Fee	Total
(select)	-	-	-	-
(select)				
Total LDCF Resources				

PART II: PROJECT JUSTIFICATION

A. STATE THE ISSUE, HOW THE PROJECT SEEKS TO ADDRESS IT, AND THE EXPECTED ADAPTATION BENEFITS TO BE DELIVERED:

A.1. Context and issues:

1. The Democratic Republic of Sao Tome and Principe is a small and very vulnerable country to the effects of climate change, due to the fragility of its ecosystem and low level of social-economic development. Increases in temperature and the decrease of rainfall are the country's greatest concerns, because these phenomena can have consequences on decreases in river flow and the amount of the subterranean water. Economically, the negative impacts will be centered in energy production, in agriculture and livestock. Human health will also potentially suffer the effects of climate change with the appearance of some diseases and aggravation of others. In summary the vulnerabilities have been identified in the NAPA, among others, as follows:
 - ☐ Increase in temperature throughout the whole country, in the last years;
 - ☐ Decrease in rainfall and the consequent decrease of the river flows in the East;
 - ☐ Lengthened dry seasons;

- Landfalls due to torrential rains, particularly on mountain slopes;
- Destruction of the forests due to high firewood consumption and intensive agriculture in areas of great slope.

The NAPA's conclusion is that : in the Northern areas and Centre where low rainfall exists - all the consulted communities in these areas point to the considerable decrease of rain and a significant increase of months of drought. Agricultural production has been suffering continuously. South area (Porto Alegre and Malanza) - the decrease of the rains was also verified and agriculture is characterized by field crops (cereals) and some perennial crops during the rain season.

The south is also a region where animals such as pigs, goats and chickens are without proper lodging and the marked absence of veterinary attendance and medication. In these areas there is a need for a systematic campaign of reforestation, construction and recovery of irrigation systems, rehabilitation of degraded forest spaces, construction of water reservoirs and dams in communities where drought is already felt, as well as support for the construction of compounds (lodging) for animals.

2. The livestock sub-sector accounts for 14% of agricultural production and 3% of the GDP. Out of the 20,000 family farms estimated in 2002, 50% undertake livestock rearing since they have a few head of cattle. The vast majority are backyard breeders (50% of whom are women). Of the 277 agricultural enterprises existing in the country, nearly 40% undertake livestock rearing. In 2005, meat production by species was estimated at 5.8 tons of beef, 2 tons of goat meat, 0.4 tons of ovine meat, 340 tons of pork and 285 tons of poultry meat. It is reported (oral confirmation from livestock's department) that there are in Sao Tome and Principe some 860 large ruminants, 52000 small ruminants including goats, pigs and muttons and some 200 000 chickens

Issue #1: Climate change will severely impact Sao Tomean's poor livestock keepers which are the most vulnerable to climate variability and climate change. Immediate concrete actions at the grass root level are required to help them cope with the changing climate.

3. It is under-reported and under-appreciated that declining crop- and rangeland productivity will reduce the amount and quality of already scarce crop by-products with which virtually all Sao Tomean smallholders feed their livestock. Less water will be available to raise farm animals, which typically constitute the prime asset of smallholders. As rising temperatures alter the distribution of parasites and their vectors, allowing them to move into new areas, many communities already in poverty traps will have to cope with new human as well as livestock disease burdens.
4. All of this will force Sao Tomean livestock keepers to make major changes in their production systems. Among the most likely are the keeping of less-productive breeds that tolerate more heat and disease as well as less feed and water; greater reliance on planted forages, crop by-products and common range- and other public lands to feed ruminant animals; and replacement of cattle with drought-tolerant sheep and goats. Climate change will also impact hundreds of Sao Tomean smallholder mixed crop-and-livestock farmers who will be forced to shift, from productive crops to other less lucrative but more drought-tolerant crops. These mixed crop-livestock producers, will also have to rely to ever greater extents on their livestock enterprises to cope with declining crop yields as well as more frequent crop failures, especially in Cacao production the "backbone" of Sao Tome's agriculture.
5. The Democratic Republic of Sao Tome and Principe (STP) as a member of the international community and very well aware at the governmental level about the need for action to face climate changes ratified the United Nations Framework Convention on Climate Change (UNFCCC) on May 30 1998. STP regularly reports on climate change issues through national communications, has developed its National Action Plan for Adaptation to Climate Changes (NAPA), and has participated in a number of other capacity building and planning activities at the central level. However, there is still a great and urgent need for concrete actions to be implemented at the grass root level to assist smallholder livestock farmers to cope with climate change.

Issue #2: Sao Tome and Principe has not mainstreamed climate change into national or district policy documents and has very limited technical ability on climate change and variability.

6. Institutional gaps exist in accessing and transferring knowledge from the international level to national and district levels. There is a need for greater leadership development on climate change as well as much wider stakeholder engagement on climate change with respect to mitigation as well as adaptation; though clearly adaptation is more pressing for the population. The newly formed Committee on Sustainable Development for STP has no formal power and is not widely known across the ministries. Capacity strengthening is a priority in government at national planning levels. At local and district levels no projects have been initiated that deal holistically with issues of climate change.
7. In 1995 the African Development Bank financed the Livestock Development Master Plan in Sao Tome and Principe. This led to the formulation and implementation of the Livestock Development Support Project. The project, which was financed by the Bank, was implemented from 1998 to 2003. The completion report prepared in 2005 concluded that it was executed in a satisfactory manner. The report drew operational lessons for future interventions and recommended the pursuit of support to the sub-sector in order to consolidate the achievements and improve the incomes of economic actors sustainably. The project was classified as environmental category II in view of the limited potential negative impacts which can be mitigated through appropriate measures. However, no mention was made about climate change impacts on this subsector and subsequently the project design did not integrate any adaptation measures.

Issue # 3: Despite the central importance of farm animals to Sao Tome's poor and the magnitude of the changes expected in this sub sector, little is known about how climate interacts with other drivers of change in livestock production systems in Small Island States.

8. The sciences of climate change, particularly modeling levels of human vulnerability to its impacts, are developing fast. To keep abreast of developments, organizations working to mitigate the impacts of climate change on the poor will need to embrace change as earnestly as the farming communities they are working to help. The complexity of both modern science and local farming systems demands collective action, and that livestock-keeping communities for and with whom researches are conducted, play a central role from inception in conducting vulnerability analyses and testing adaptation strategies.
9. There is lack of analytical frameworks and tools with which to conduct such studies, and also a lack of indigenous research and technical capacity to address livestock adaptation issues impinging on Sao Tome's poor. It would be strategic to develop research work on livestock-adaptations based on existing agricultural projects. Targeted research to increase ability of famers to adapt to climate change with regards to livestock, should include the following issues: targeting hotspots of change, quantifying climate change impacts on ecosystems and livestock communities, applying information, assessing adaptive responses and building capacity.

A.2. Baseline:

The phase II of the Livestock Development Support Project (LDSP-II)

10. Under its assistance to the country, the AfDB financed the Livestock Development Master Plan study in 1995. This study identified family livestock rearing as a major area of intervention to promote the emergence of small animal production holdings. The Plan recommended the Bank's long-term commitment for the financing of the actions proposed. The Livestock Development Support Project (LDSP) stemming from this Plan, at the sectoral level, aimed at improving the food security of the people and set as its specific objective the improvement of the productivity of pig, goat, sheep and poultry rearing.
11. Overall, the implementation of activities under LDSP I was satisfactory. The objectives assigned to the project were attained. It promoted livestock rearing in the country, a 30% increase in meat production, provision of technical support services to breeders, diversification of the incomes of stockbreeders and

consequently reduction of their poverty. The project helped improve the health coverage of livestock by 50%. Epidemiological surveillance and the hygienic protection of animal products are henceforth effective means of ensuring that the country averts any possible risk of introduction of new diseases in view of the fact that the project has helped reduce clandestine slaughtering by over 70% and operationalized its inspection of slaughterhouses.

12. The proposed project will be built on baseline activities supported by the African Development Bank's second phase of the Livestock Development Support Project (LDSP-II). The preparation of LDSP II was based on the needs expressed by the stockbreeders during the implementation of LDSP I and consultative workshops in which breeders' representatives and various private operators involved in the livestock sector and local NGOs participated. The project will last 5 years ending December 2013. It will be implemented by the Directorate of Animal Husbandry. The major outputs of the second phase of the LDSP are as follows: (i) building the capacities of public services and beneficiaries; (ii) support to the organization of operators of the livestock sub-sector; (iii) improvement of conditions and livestock rearing skills (feed, shelters, animal health and local breeds) (iv) support to development-research activities ; and (v) support to the processing and marketing of livestock products. These outputs will stem from three components namely: A Capacity Building; B. Improvement of Livestock Productivity; and C. Project Management

The national sub-project of the Africa Adaptation Programme (AAP)

13. The UNDP, with funding from the Government of Japan, recently launched a new programme that uses an innovative approach to climate change adaptation in Africa. Under this programme, UNDP will assist 21 African countries (including Sao Tome and Principe) in implementing integrated and comprehensive adaptation actions and resilience plans. The projects will ensure that national development processes incorporate climate change risks and opportunities to secure development gains under a changing climate. UNDP will help countries establish an enabling environment and develop the capacity required to design, finance, implement, and monitor long-term and cost-effective adaptation policies and plans.
14. Sao Tome and Principe has designed under this regional on-going programme a comprehensive two year project entitled ***Supporting Integrated and Comprehensive Approaches to Climate Change Adaptation in Africa: Leadership demonstration and capacity-building in Sao Tome and Principe*** that expects to achieve the five following outputs; 1; *Dynamic, long term planning mechanisms to cope with the inherent uncertainties of climate change introduced*; 2) *Strengthen leadership and institutional framework to manage climate change risks and opportunities at local and national level*; 3) *Climate change-proof national and sectoral policies, and design, test and implement priority climate change measures*; 4) *Financing options to meet national adaptation costs expanded at the local, national sub-regional and regional levels*; 5) *Generate and share across the African continent knowledge on adjusting national development processes to incorporate climate change risks/opportunities. This programme is located mainly in the northern savannah region of Lobata and in terms of activities it does not touch the livestock's sub sector Thus our GEF project is complementary and try to fulfill the points 3 and 4 of the UNDP program.*
15. The PPG for the project being proposed will be used to provide greater details on the baseline, especially regarding both the institutions and ongoing activities and/or programmes; this preliminary work will help determine a shared and non- "sectoral" vision of the different actors involved with livestock climate change adaptation in the country; and above all, the baseline scenario will help define the terms and conditions for the effective participation of different stakeholders and the GEF. All technical and financial partners will be identified in an effort to create stronger synergy and convergence of their respective interventions while highlighting the distinctive features of this project with climate change adaptation. During the design of the PIF and in collaboration with the Ministry of Agriculture and the Livestock Department a number of project sites have been pre-selected (to be confirmed during PPG). Some of the criteria used for the pre-selection of sites are: i) a participatory and demand driven approach with the potential beneficiaries; ii) complementarity and no overlapping with other programs/projects including AfDB, UNDP AAP, World Bank project 4018..Climate Adaptation and the NAPA, among others;iii) sites that represent poor and vulnerable populations where the impact of livestock's distribution and climate resilience will have a measurable and

significant impact; and sites where in the past they were known to be livestock centers (so a minimum infrastructure exists, for e.g. Nova Olinda and other rocas). Based on these criteria the following sites were pre-selected: Nova Olinda, Claudino Faro, Don Augusta/ Ribeiro Peixe, Porte Allegro in the South- the Lobata region in the North with Praia Das Conchas as its center, Monte Forte, Centro Pequario Industria Generosa and the roca Diego Vaz; the Monte Café region in the centre with the CATAP demonstration centre, Campo Grande, Bemposta, San Jose, San Carlos and San Luis , ex large ruminant centers; and Santa Jenny and Santa Catarina Rosso for small ruminants. All these preselected sites are also in markets or near populated villages constituting good market opportunities.

A.3. *Proposed adaptive alternative*

16. The government of Sao Tome and Principe in collaboration with Technical and Financial Partners (TFP) is already working on one hand in boosting livestock production and on the other hand coping with climate change. However, because of the diversity of focal interest of the TFP and limited funding, adaptation measures are not adequately integrated into livestock's national development strategies and programmes. Continuing to work on such a sectoral basis within the country, would not enable the reduction of threats induced by climate change on Sao Tome's poor livestock keepers, neither would it ensure that national development processes incorporate climate change risks and opportunities to secure development gains under a changing climate.
17. The adaptive alternative proposed through this GEF project builds on the behavior of farmers in Sao Tome and Principe, explores how they have adapted livestock management to climate change across the country over the years, and what support they need to enhance their mechanisms of coping with climate variability and climate change. This GEF incremental financing will primarily support and supplement all these baseline programmes by; a) Strengthening the adaptive capacity of most vulnerable livestock-keeping households; b) Mainstreaming adaptation options into livestock national development strategy, and c) Building indigenous capacity on livestock systems adaptations to climate change through integrated sustainable livestock centers demonstrating breed's resilience, rangeland management, animal wastes management, bio-agriculture and animal – feed.
18. At the sectoral level, this project entitled *Strengthening the Adaptive Capacity of most vulnerable Sao Tomean Livestock-keeping Households*, aims to strengthen food security in Sao Tome and Principe. The specific objective is to improve resilience of the livestock systems in support of the productivity of stockbreeding.
19. The project is developed around the three following components:
20. Component 1: *Strengthening the adaptive capacity of most vulnerable livestock-keeping households. (GEF: US\$ 950 000; Co-financing: US\$ 3 674 000)*: Under this component on-the-ground investment activities will be financed, to support smallholders livestock. Existing credit facilities have been studied. They consist of in kind support to small holders and livestock breeders whereby the Ministry distributes animals, mainly small ruminants, to farmers (for e.g. 4 females and 1 male) with the target of reproducing in 3 years and recuperating part of the animals and the capital (4 females and one male) for re-distribution to other farmers. It is noted here that before distributing animals to small holders one has to be sure that animals will be productive and the stock breeders have the measures to attain the production level desired.
21. They are incremental but integrated into the baseline scenario activities. This component largely builds on the LDSP-II project. Expected outputs are the following:
 - A system of access to credit-in-kind is operational and enables the stock breeders to acquire resilient breeds to CC; and set up integrated sustainable livestock projects (breeds, pastures, fodders and waste management)
 - Effective models for community based management of endemic livestock and their habitat are established;

- Skills of feed conservation for dry season supplementation are developed by smallholder farmers;
 - The adaptive capacities of beneficiaries in terms of organization, production, processing and marketing are strengthened.
22. Component 2: Mainstreaming adaptation options into livestock national development strategy. (GEF: US\$ 410 000; Co-financing: US\$ 3 159 000): This component that particularly builds on the AAP's national sub-project, supports activities that help mainstream livestock adaptation measures into local and national development strategies and programmes. Expected outputs are the following:
- A functional CC sub-committee is set-up in the directorate of animal husbandry;
 - A geo-referenced database on livestock vulnerability to CC is developed and regularly up-dated;
 - A sectoral climate resilient policy in livestock developed for decision making use;
 - Awareness and understanding on the need for integrating CC in livestock strategy are enhanced at local and central levels.
23. Component 3: Building indigenous demonstration capacity on livestock systems adaptations to climate change. (GEF: US\$ 550 000; Co-financing: US\$ 0): Activities under this component would not occur under the baseline scenario. They include targeted participative demonstration and specific knowledge management. Significant adaptation benefits will derive from this component. This component will be implemented in close collaboration with national and regional agriculture stations / institutes such as the Sao Tome Taiwan Agriculture Station in the south and Nova Olinda. Expected outputs are the following:
- Targeted participatory demonstration on livestock-based adaption/mitigation are conducted, among others biogas and compost approaches and technology , in at least 3 integrated livestock resources centers (region north, central and north). The breeders to be used in the demonstration centres will be purchased with resources from the ongoing LDSPII.
 - Findings and lessons learned are documented and disseminated;
 - Knowledge is put into action through experimentation /Demonstration activities.
24. The activities under each component will be refined and corresponding indicators developed within a comprehensive monitoring and evaluation plan through the PPG for this project.

A.3. Expected adaptation benefits

25. Expected adaptation benefits from the project include improved management of livestock in changing climate and sustainable use of biodiversity, such as conservation of endemic livestock. Apart from reduced vulnerability to climate change and variability, national benefits will come from advancing the implementation of the NAPA, mainstreaming of climate change adaptation into the Poverty Reduction Strategy and improving productive capacity of livestock, thereby reducing economic vulnerability of those dependent on these activities and contributing to poverty reduction. In addition the GEF project will re-inforce the existing livestock centers (e.g. Nova Olinda) which will be used for demonstration, for testing climate resilient pastures and for adaptive approaches for small and large ruminants.

B. DESCRIBE THE CONSISTENCY OF THE PROJECT WITH NATIONAL/REGIONAL PRIORITIES/PLANS:

26. This project for *Strengthening the Adaptive Capacity of most vulnerable Sao Tomean Livestock-keeping Households* is consistent with the identified priorities in the NAPA. The STP NAPA identifies the absence of races of animals and plants that adapt to the extreme drought and/or desertification and the lack of environmental education as two of the main constraints in the agriculture and livestock sector. The objectives of the NAPA include protecting the life and the people's well-being, as well as the infrastructure and environment; and increasing the knowledge on the impact of climate change and activities of adaptation in7

the communities, in the civil society and close to the Government. The measures to address these issues in the NAPA include the development of integrated and sustainable animal feeding systems; and the promotion of transformation activities and conservation (animal and human feeding) to deal with drought phenomenon and other adverse effects of the climate. The NAPA lists the reinforcement and diversification of the agricultural and animal production as one of the priorities.

27. The project is also consistent with the orientations of Government of Sao Tome and Principe's macroeconomic policies. It reflects the Government's determination to implement all development actions capable of generating strong, sustainable and poverty-reducing economic growth. These options ultimately aim at achieving the reform of public institutions, capacity-building, and promotion of a good governance policy; accelerated redistributive growth; creation of opportunities to increase and diversify the incomes of the poor; human resources development and improved access to basic social services. All these orientations have been embodied, inter-alia, in Poverty Reduction Strategy Papers (PRSPs); The United Nations Development Assistance Framework (UNDAF 2007-2011); The National Environmental Action Plan and Sustainable Development (PNEDD); The National Capacity-building Self-assessment for Global Environmental Management (NCSA); The National Action Plan for Adaptation (NAPA); and the commitment of the Government to mainstream environment and gender issues into national policy.

One of the NAPA's priority projects is the Integrated Project of Livestock Development (goat and cows) in the north part of São Tomé. Based on type species, the goat is one of the species that more resists to the drought, it can feed with pastures of smaller nutritional value and to rarely drink water, when compared with birds and swine; it can produce milk, cheese and local meat that are products in deficit in the country; also, produces, on the other hand, the fertilizer for land fertilization, reforestation and rehabilitation of the pasture area and production of renewable energies as the biogas.

The project implementation demands however the application of the use of technologies and appropriate, rational practices appropriate, rational, integrated (biogas production, improvement of the forest ecosystem) and diversified (promotion of biodiversity) that seek to increase the production and simultaneously protect environment, contributing namely to the reduction of pollution and the greenhouse effect, phenomenon that can be exacerbated with the intensification of the production system (implementation risks, aberration erosion for the introduction of other races). The demonstration centers will aim to achieve these objectives.

C. DESCRIBE THE CONSISTENCY OF THE PROJECT WITH LDCF ELIGIBILITY CRITERIA AND PRIORITIES:

28. The Government of Sao Tome and Principe has signed and ratified several important international conventions, protocols and agreements related to climate change. It is one of the LDC parties to the United Nations Framework Convention on Climate Change (UNFCCC). This project is fully consistent with the LDCF eligibility criteria and priorities as it:
 - Supports adaptation priority # 7; *Sustainable livestock management*, determined in the STP's NAPA;
 - Is consistent with the livestock national development strategy;
 - Integrates and builds on lessons learned and existing scientific guidance;
 - Mainstreams adaptation within the African Development Bank's baseline project and Government, bilateral and multilateral actions on agricultural sector;
 - Aims at reducing vulnerability especially of poor smallholders livestock communities who, based on accurate climate information can better adapt themselves and their agricultural activities;
 - Is cost-effective as it builds on ongoing projects.

D. OUTLINE THE COORDINATION WITH OTHER RELATED INITIATIVES:

29. The project, which will be implemented by the Directorate of Animal Husbandry, will be placed under the supervision of the Ministry in charge of the Animal Husbandry sector. The execution of the various project

components will be in close collaboration with the technical services of the sectoral Ministries, mainly Agriculture and Environment, concerned. To this end, a steering committee (SC) will be put in place for the overall supervision of the project, and detailed management arrangements with stakeholders negotiated at the PPG stage.

30. The project will closely coordinate with the following major initiatives currently developed in the targeted zones, the country or the West Africa region:

- The AfDB phase II of the Livestock Development Support Project (LDSP-II)
- The UNDP/Japan Africa Adaptation Programme (AAP) regional program
- The UNDP/WB/GEF Adaptation Learning Mechanism (ALM), regional program
- The UNDP/GEF Endemic livestock regional project
- The WB coastal adaptation programme 4018 (only coastal adaptation)
- The International Livestock Research Institute (ILRI) Livestock-based adaptation research project
- The Millennium Ecosystem Assessment (MEA), multi-agency
- Proposal to AfDB CBFF to establish 4 community forests in Santa Jenny , Plateau , San Lorenzo and San Joachim in Principe.
- Other initiatives to be determined at the PPG stage.

E. DESCRIBE ADDITIONAL COST REASONING:

31. The GEF incremental financing will cover the costs of developing, testing and demonstrating integrated livestock climate change adaptation models in selected sites, in support of activities that would not be undertaken in the baseline scenario. The GEF increment will also lift barriers to sustainable livestock management specifically by strengthening the resilience of livestock systems. *GEF's incremental value/benefits, or the value added of this project will be in implementing the environmental benefits of both the NAPA priority 7 and LDSP-II Environmental and Social Management Plan (ESMP), namely maximize the benefits in demonstrating the adaptive skills of the livestock sector at the level of small stock breeders (integrated demonstration and capacity building projects: resilient breed, sustainable pastures, controlled water supply, and waste management/compost and biogas approaches), activities that will be proper at this project.*

F. INDICATE THE RISK THAT MIGHT PREVENT THE PROJECT OBJECTIVE(S) FROM BEING ACHIEVED AND OUTLINE RISK MITIGATION MEASURES:

Risks	Likelihood	Remedial actions
1. Poor political and/or economic governance (inadequate allocation of oil resources in particular) can lead to socio-political conflicts	Medium	The involvement of the population and development of the civil society will play a leading role to ensure transparency and maintain a democratic order. The consistency of expenditure in relation to priorities geared towards the better allocation of resources, in accordance with the poverty reduction objectives, will help avert the development of social inequalities and reduce social tensions.
2. Investors / co-financing withdrawing from the project	Very Low	The African Development Bank's ADF Grant to Sao Tome and Principe under the LDSP-II project has already been approved, and is currently under implementation. Sao Tome and Principe participation to the AAP regional programme is confirmed and a two year national sub-project of 3 M USD financing has already been approved. The inception workshop of the project will be held by mid of March 2010.
3. Unsatisfactory implementation of the project	Medium	The Project Implementation Unit has been selected and is currently operational. Additional dedicated staff will be recruited to specifically implement the GEF incremental activities of the project. At the central level the AfDB will closely follow the implementation of the project and will provide as appropriate technical and managerial guidance. At the medium term review of the LDSP II project, in October 2010, the

Risks	Likelihood	Remedial actions
		GEF project will be approved by AfDB and mounted on the LSDP II.
4. Loss of support of government and other stakeholders	Low	This risk will be mitigated by giving attention to stakeholder consultation and open adaptive management. The PPG activities will aim to ensure local ownership, and sound implementation mechanisms.

G. DESCRIBE, IF POSSIBLE, THE EXPECTED COST-EFFECTIVENESS OF THE PROJECT:

32. Cost-effectiveness is one of the guiding principles of the project design as it builds on two on-going and complementary projects. The project is not a stand-alone project and is fully integrated into the LDSP-II project. While baseline projects will assure national development benefits and build capacity on climate change adaptation at national level, the project will focus on supporting poor smallholder's livestock to cope with climate change, mainly in selected demonstration sites in the north, south and central areas.

H. JUSTIFY THE COMPARATIVE ADVANTAGE OF GEF AGENCY:

33. AfDB's comparative advantage in this project lies in its capacity as a multilateral development bank with a long history of practical ground-level investments in Sao Tome and Principe, especially in the subsector of livestock. The AfDB will use its investment project as the baseline and co-financing to ensure cost-effective implementation of activities under this project. The project also draws on the AfDB's comparative advantage in supporting and improving capacity, providing technical and policy support in relevant areas to its regional member countries (RMCs). Indeed, the African Development Institute is the training branch of the AfDB with a mandate to develop the capacity of the Bank's RMCs' officials as well as national experts to manage their economies through workshops, seminars and conferences. The institute has over the years provided support to the operation complexes of the Bank by strengthening capacity in the management of projects and programs funded by the Bank in its RMCs. The institute organizes over 150 events (workshops, seminars and conferences).

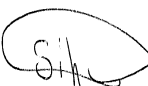
PART III: APPROVAL/ENDORSEMENT BY OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)

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

(Attached as in annex 1)

NAME	POSITION	MINISTRY	DATE (Month, day, year)
LOURENCO MONTEIRO DE JESUS	GEF Operational Focal Point	ENVIRONMENT AND NATURAL RESOURCES	JUNE 21, 2010

B. AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with LDCF policies and procedures and meets the LDCF criteria for project identification and preparation.					
Agency Coordinator, Agency name	Signature	Date (mm/dd/yy)	Project Contact Person	Telephone	Email Address
Siham MOHAMED AHMED		11/01/2011	Hany SHALABY, Principal Environmentalist OSAN.4	+216 71 10 3006/ +216 22 907 817	h.shalaby@afdb.org

Annex 1: GEF Operational Focal Point endorsement letter

Annex 2: THE LIVESTOCK SUBSECTOR

Significance of Livestock in Sao Tomean Economy

34. Although animal husbandry represents a secondary activity for the economy of Sao Tome and Principe, it plays a key role in food security. Over the 1998-2003 period, livestock numbers increased by 30%, all species inclusive. Out of the 20,000 family farmers estimated in 2002, 12,000 were stockbreeders, (50% of whom were women).
35. Two major livestock systems coexist in Sao Tome and Principe and are well adapted to the country's environment. These are (i) the traditional family system and (ii) the semi-improved livestock system in medium-sized agricultural enterprises. The traditional system is largely dominant. Herding is of the extensive type, based on the exploitation of natural pastures for ruminants, essentially on the plantations. Animals are left in the open range with little supervision. Grazing places are limited and are restricted to planted areas. Agricultural production does not yield usable cereal surplus in cattle feed. Sometimes animals are kept in rudimentary enclosures during the night. The performance of this system of stockbreeding is low. In view of the low incomes of the breeders, the animals hardly receive health care; the mortality rate is high (about 22% for sheep). Traditional poultry sector is not well known, since it is poorly supervised and only receives occasional health care. It mainly relates to the production of broilers and layers. This type of stockbreeding, which is highly rudimentary, entails little costs and can be developed rapidly.
36. The semi-improved livestock system often constitutes a capitalization of incomes from trading or other sources. However, herding remains extensive. But with an improvement of the habitat, appropriate health care and use of feed and mineral supplements, this type of stockbreeding can become more intensive and productive. Rearing of pigs is better managed on these farms and constitutes the essence of incomes. It is worth noting that mixed farming is beginning to be practiced on these farms; but the poor technical and economic management constitutes their weak point.
37. Genetic resources among cattle are made up of zebus introduced during the colonial period and whose genetic potential has completely degenerated as a result of mixed breeding. At the end of 2005, the cattle stock was evaluated at 834 head. The number of small ruminants (sheep and goats) was 26,700 with the forest dwarf goat as the dominant species for the goat livestock. Sheep were introduced recently into the country under the LDSP I. In 2005, the annual production of beef was estimated at 6 tons, that of ovine meat at 0.4 tons of meat and offal. Pigs are more appreciated. Indeed, they represent a significant proportion of livestock and their meat is the most consumed locally. The Large White Breed which was introduced in 1975 and the nucleus that escaped the swine fever in the 1980s are coping very well with local conditions. The country has 26,500 pigs for an estimated production of 340 tons of meat. Poultry is a constant element of households. It constitutes the type of ideal livestock rearing that enables the rapid mobilization of financial resources. The number of poultry is 199,000 for an estimated production of 285 tons of meat. Rabbits are few but demand is growing.
38. Annual livestock growth is estimated on average at 10% for poultry, 2.5% for pigs, 15% for goats and 5% for cattle. At the level of the sub-sector, between 1998 and 2003, the weighted growth rate rose to 42.8% including all species, in view of the imports and multiple products derived from them. The overall weighted productivity is low. These parameters still fall below the standards required for proper national production of meat. Their improvement will depend on the level of support in terms of habitat, feeding and reduction of mortality.
39. The main source of cattle feeding remains natural pastures for ruminants and residues from crop harvests for monogastrics and pigs. Except for a few savannah enclaves, pastures are mainly found on the cocoa, palm or banana plantations. For pigs, feed is made up of cocoyam, banana peels, and breadfruit supplied by stockbreeders on a daily basis. Livestock watering is provided through water meant for domestic

consumption. Watercourses are hardly accessible to small ruminants; surface water and 55% of ground water cannot be used. Water needs remain significant for adequate pastoral livestock breeding.

40. In the area of animal health, parasitic diseases are common among ruminants but brucellosis and tuberculosis are a considerable threat to cattle. Despite vaccination efforts made during the initial phase, (30,000 poultry in 2003 and 20,000 in 2002), diseases such as Newcastle disease, Gumboro, infectious bronchitis, retrovirus, Marek and encephalomyelitis have a high fatality rate on poultry farms (10 to 25%, all species inclusive). The mortality rate of animals fell from 50 to 18% for poultry and 30 to 10% for pigs. But the average mortality rate of small ruminants remains high at 22% in view of a high mortality (48%) of goats during the post-landing quarantine in Sao Tome.
41. The city of Sao Tome constitutes the main outlet market for the national production. The terminal marketing of cattle is carried out by specialized merchants. They collect the cattle directly from the stockbreeders, have them slaughtered at the central slaughterhouse and sell the meat to butchers. There are fewer than ten modern butcher shops in the city. On average, only 60% of the slaughter activities are inspected. This indicates that a portion is meant for self-consumption. Prices found among the breeders are through negotiation. However, mention needs to be made of the selling difficulties due to the absence of retail points for pigs and traditional poultry. Slaughterhouse professionals and private operators are not trained in the area of meat processing. Consequently, the poor knowledge of processing and preservation of animal products is a factor that hinders market development. Stockbreeders would gain much more through economies of scale if they were able to regroup their products and deliver them in bulk. The absence of a cattle market and a market pricelist does not make for the monitoring of prices.
42. Average meat consumption was 5.0 kg/capita/year (including imports) in 2005 as against 10 kg recommended by the FAO for a well balanced diet. Sao Tomeans therefore only satisfied about 50% of their consumption needs, hence the need to support the improvement of livestock productivity. By 2015, the timeframe set for achieving the Millennium Development Goals, the country's meat deficit will be higher by 60% compared to that of 2005, if no vigorous action is taken by then, and it is likely that one third of these needs will not be met.

Institutional Framework

43. The livestock sub-sector is placed under the Minister of Economy and under the technical responsibility of the Animal Husbandry Directorate (DE). The DE is structured into three technical sections (animal health, animal production and monitoring-evaluation); four zonal delegations (Centre, North, South and Principe). It has a veterinary inspection service and a laboratory. The country has no private service providers in the livestock sector. However, over the last year, initiatives have been underway in the area of modern poultry farming with the emergence of a poultry cooperative.
44. The human resources of the DE comprise 6 veterinary surgeons including 2 women, 6 zootechnician engineers including 2 women, 4 veterinary technicians including 2 women, and 3 assistant technicians including 1 woman. To this may be added, the administrative staff made up of 5 persons (secretaries, messenger and drivers). The DE has been strengthened with contractual staff to carry out the activities of the first phase of the LDSP. The staff has acquired some experience in project implementation that will benefit the future livestock development actions.
45. Two related structures also operate in the livestock sub-sector: the Agronomic and Technological Research Centre (CIAT) and the Agro-pastoral Technical Advanced Training Centre (CATAP) responsible for providing training and further training to small producers. The CIAT, the only one of its kind in the country, is responsible for undertaking all agricultural research. It has four laboratories in the following areas: agro-chemistry, phytopathology, microbiology and entomology.

Constraints and Potential of Livestock Sub-sector

46. Sao Tomean livestock rearing is hampered by several constraints the major, especially: insufficient professional staff and the need to build their capacities in management and monitoring; insufficient material and financial resources; the need to update regulations on zoo-sanitary activities and the veterinary profession; low level of training and literacy of stockbreeders; the need to strengthen applied research; lack of marketing infrastructure for livestock products; low productivity of livestock; difficulty in feed supply; and fragility of the zoo-sanitary situation.
47. Notwithstanding these constraints, the livestock sub-sector has assets to ensure its sustainable development. Climatic conditions on the archipelago are favorable for livestock development. Given the natural fodder potential on the plantations, cattle rearing can play a significant role in the diversification of the revenues of medium-sized enterprises, whose activities are mainly centered on the exploitation of coconut trees and oil palm trees. With regard to animal health, the insular nature of the country that isolates it from major animal diseases can be beneficial. The actions of the LDSP Phase I laid the basis for the sustainable development of livestock rearing as demonstrated by the growing interest of the population for this activity. Animal health surveillance and veterinary inspection put in place have reduced clandestine slaughtering by 70% and the risks of transmission of zoonoses thus safeguarding public hygiene. Seventy-six percent (76%) of small producers were supervised and have taken to livestock rearing as a livelihood. The level of margins from livestock activities is growing significantly thus contributing to reducing poverty in the sub-sector. The system of credit-in-kind and in cash took into consideration the female population. A system of technical support to producers aimed at developing productions while protecting resources is being established through livestock assistants and extension workers.
48. Animal feed could be developed from plant residues supplemented with vitamins and mineral salts. At another level, the population increase, related to the petroleum era will result in a growing demand for animal products. Indeed, activities related to petroleum exploitation will attract the influx of immigrants into the country and, consequently result in an increase in the demand for meat products.

Livestock Sub-sector Policy

49. The major orientations of the Government, as contained in the PRSP, have identified agricultural development as one of the key components of socioeconomic growth. The strategy aims at increased productivity as a means of overcoming challenges and making up for delays and rural poverty. Livestock rearing constitutes one of the essential elements and should concern family holdings and medium-sized agricultural enterprises.
50. To meet the growing demand for meat, the sub-sector policy relies essentially on family holdings (pigs, goats, sheep and poultry). Public interventions primarily focus on the dissemination of techniques aimed essentially at breeders of small ruminants, poultry and pigs; strengthening of health protection; organization of medicine supply; strengthening of local and national authority to combat straying of animals; improvement of the processing, preservation and marketing conditions for livestock products.
51. To minimize the costs of extension work and reach the largest number of persons, the organization of breeders into associations by region and around the demonstration centers will be pursued more vigorously and with greater commitment under the impetus of the Government. These associations will serve as fora where breeders could discuss not only professional issues, but also those relating to their daily lives, including, inter alia, decisions concerning the community investments to be made. These associations will therefore serve as privileged interlocutors for the administration and, where necessary, give their moral backing to the credit operations.