**Project Identification Form (PIF)**

**Project Type:**

**Type of Trust Fund:**



**PART I: Project Identification**

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| Project Title: | Sustainable land and forest management in the Greater Caucasus landscape. |
| Country(ies): | Azerbaijan | GEF Project ID: | 4332 |
| GEF Agency(ies): | UNDP | GEF Agency Project ID: | 4418 |
| Other Executing Partner(s): | Ministry of Ecology and Natural Resources | Submission Date: | February 25, 2011 |
| GEF Focal Area (s): |  | Project Duration: | 60 months |
| Name of parent program:For SFM/REDD+ [x]  |  | Agency Fee: | 568,000 |

1. **Focal Area strategy Framework:**

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| --- | --- | --- | --- | --- |
| Focal Area Objectives | FA Outcomes | FA Outputs | Indicative financing from relevant TF, ($)  | Indicative co-financing, ($) |
|  | Outcome 1.1: Enhanced enabling environment within the forest sector and across sectors.Outcome 1.2: Good management practices applied in existing forests. | Output 1.1: Payment for ecosystem services (PES) systems established (number). Output 1.2: Forest area (hectares) under sustainable management, separated by forest type  | 100,000340,000 | 300,000800,000 |
|  | Outcome 2.1: Enhanced institutional capacity to account for GHG emission reduction and increase in carbon stocks. | Output 2.2: National forest carbon monitoring systems in place (number). | 100,000 | 300,000 |
| LD-3  | Outcome 3.1: Enhanced cross-sector enabling environment for integrated landscape managementOutcome 3.2: Integrated landscape management practices adopted by local communities  | Output 3.1 Integrated land management plans developed and implemented Output 3.2 INRM tools and methodologies developed and tested | 600,0002,172,000 | 1,800,0003,900,000 |
|  | Outcome 5.1: Good management practices in LULUCF adopted both within the forest land and in the wider landscapeOutcome 5.2: Restoration and enhancement of carbon stocks in forests and non-forest lands, including peatland | Output 5.1: Carbon stock monitoring systems establishedOutput 5.2: Forests and non-forest lands under good management practices | 800,0001,000,000  | 1,000,0002,600,000 |
| Project management cost[[1]](#footnote-1)LD: 308,000; CC: 200,000; SFM: 60,000 | 568,000 | 700,000 |
| **Total project costs** | **5,680,000** | **11,400,000** |

1. **Project Framework**

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| **Project Objective**: Sustainable land and forest management in the Greater Caucasus Landscape secures the flow of multiple ecosystem services, including carbon storage and sequestration, while ensuring ecosystem resilience to climate change.  |
| **Project Component** | **Grant type** | **Expected Outcomes** | **Expected Outputs** | **Financing from relevant TF, ($)** | **Indicative co-financing, ($)**  |
| National and rayon level policy and legal framework needed to ensure stakeholder collaboration in engendering sustainable land and forest management in the Greater Caucasus (GC) Mountains | TA | 1. Enabling policy and institutional environment for integrating SLM and SFM principles within the State programs and rayon level land use and forest management frameworks resulting in:- Improved management of 483,800 ha forest and 591,100 ha pasturelands in Greater Caucasus over long-term - Improvement in capacity development indicators as per UNDP Capacity Development Scorecard [baseline app.18%; target 40%]. 40 policy makers, 25 extension agents, 75 field staff; and 3000 shepherds applying SLM/SFM practices. | 1.1. A package of modifications in land and forest legislation and related regulations, policies, and standards for SLM and SFM at national and local levels, including: (i) updated national action plan to combat desertification; (ii) by-laws with specific healthy pasture criteria, management standards for SLM/SFM, and guidelines on monitoring and enforcement; (iii) appropriate agro-environmental policies to incentivize sustainable forest and pastureland management at local levels in Azerbaijan (i.e. grazing permits that include multi-year incentives for sustainable use and budgetary incentives for local institutions to improve pasture and forestland health); (iv) amendment to State programme on pasture management to enable piloting of SLM practice and strengthen SLM/SFM aspects of leasing requirements and enforcement. 1.2. Stakeholders at national, rayon and local level have access to improved knowledge and data to manage sustainably the pastureland and forest resources of the GC through development of mechanisms for peer-to-peer learning, systematic long-term approaches to capacity building, and disseminating information on SLM practices. 1.3. Strengthened capacity of institutions across sectors to collaborate and manage the GC landscape  | Total: 600,000LD: 600,000 | 1,800,000 |
| Models for sustainable land and forest management demonstrated in the Greater Caucasus. | TA | 2**.** Demonstrated forest recovery and reduction of degradation from grazing and browsing pressures by livestock, resulting in: - Maintenance or increase in the vegetative cover across 12,500 ha of pastures under improved land use management. - 20,000 ha of forestlands under improved multifunctional forest management. - avoiding emissions from forest degradation of: 245,667 t CO2 eq/year - SLM/SFM knowledge effectively transferred (working groups tackle multi sectoral issues).  | 2.1. Pilot rayon-level inter-sectoral committee for cooperation on land management established in three rayons in the GC 2.2 Integrated rayon territorial plans accommodating SLM and SFM concerns designed and applied by local communities in 3 rayons to meet the SLM and SFM standards and avoid GHG emissions caused by unsustainable land-use practices. 2.3. Improved SLM and SFM compatible land-use in pilot communities such as: a) grazing to stimulate grasses for vigorous growth and healthy root systems; b) using the grazing process to feed livestock and soil biota through maintaining soil cover (plants and litter) and managing plant species composition to maintain feed quality; c) providing adequate rest from grazing without over-resting the plants; d) soil conservation measures - improvement of soil fertility, water accumulation/preservation, establishment of windbreaks, buffer strips, and filter strips to reduce erosion; and e) hay farming in support of intensive pastures established on appropriate lands to remove loads on natural meadows.2.4. Piloting agro**-**environmental incentives linked to specific indicators of forest and pastureland health for farmers to reduce over-grazing in forests and sensitive areas such as government subsidy payments to grazers and budgetary incentives for local authorities in exchange for improved pasture and forestland health. | Total: 2,312,000LD: 2,172,000SFM: 140,000 | 4,260,000 |
| Enhancement of carbon storage potential in Greater Caucasus region is promoted and demonstrated | TA | Objectives and methods to enhance carbon storage potential of forests and pastures integrated in forestry and pasture land-use planning and decision-making Improved SLM and SFM practices and restoration on 14,000 ha contribute to carbon storage of - 247,500 t CO2 eq (9,000 ha in pastureland)- 129,367 tCO2eq (in 5000 ha) in forests (only above ground biomass)[[2]](#footnote-2).  | 3.1. National LULUCF and REDD + Action Plan developed and operationalized: regulation and set of standards to strengthen the role of forest in climate change mitigation; national and sub-national forest sector reference emissions levels set and communicated to UNFCCC; 3.2. Carbon flow monitoring protocols integrated in the national forest monitoring system based on refined methodological approaches for carbon stock field assessment; Sample site measurements for soil and litter; data processing and analysis through a GIS based software module; reporting tools (decision-making module, map production) and monitoring reporting and verification system in place.3.3. Pilot restoration by reducing grazing and wood collecting pressure of 5,000 ha of degraded community forests and 9,000 ha of pastures. Baseline carbon data documented; REDD+ actions implemented in each of the 2 forest and pastureland sites (primarily ecosystem restoration, reforestation); carbon emission reductions, biodiversity and social benefits measured, reported, verified. | Total: 2,200,000CC: 1,800,000SFM:400,000 | 4,200,000 |
| Project management cost[[3]](#footnote-3) (LD: 308,000; CC: 200,000; SFM: 60,000) | Total: 568,000 | 1,140,000 |
| **Total project costs** | **5,680,000** | **11,400,000** |

1. **Indicative** [**Co-financing**](http://gefweb.org/Documents/Council_Documents/GEF_C21/C.20.6.Rev.1.pdf) **for the project by source and by name if available, ($)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Sources of Co-financing** | **Name of Co-financier** | **Type of Co-financing** | **Amount ($)** |
|  | MOENR | Grant | 4,000,000 |
| GEF Agency | UNDP | Grant | 230,000 |
| GEF Agency | FAO | Grant | 500,000 |
| Bi-lateral Partner | GTZ | Grant | 500,000 |
| National GovernmentNNational Government | MOENROENR | In-kind | 6,170,000 |
| **Total Co-financing** |  |  | 11,400,000 |

1. **GEF Resources Requested by Agency, Focal Areas and Country**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **GEF Agency** | **Type of Trust Fund** | **Focal area** | **Country name/Global** | **Project amount (a)** | **Agency Fee (b)** | **Total c=a+b** |
| UNDP | GEF | LD | Azerbaijan | 3,080,000 | 308,000 | 3,388,000 |
| UNDP | GEF | CC | Azerbaijan | 2,000,000 | 200,000 | 2,200,000 |
| UNDP | GEF | SFM/REDD+ | Azerbaijan | 600,000 | 60,000 | 660,000 |
| **Total GEF Resources**  | 5,680,000 | 568,000 | 6,248,000 |

**part ii: project JustiFication**

1. **Description of the consistency of the** **project with:**

**A.1. the GEF focal area strategies:** The project seeks synergies across the Land Degradation (LD) and Climate Change Mitigation (CCM) Focal Areas and is consistent with the SFM strategy of the GEF-5. The project addresses CCM-5:“Promote conservation and enhancement of carbon stocks” by enabling Azerbaijan to adopt good management practices in LULUCF including restoring and enhancing carbon stocks in forests and pasturelands. The project addresses LD-3: Reduce pressures on natural resources from competing land uses in the wider landscape, by strengthening the enabling environment among sectors (environment, forestry, agriculture), engineering a paradigm shift from unsustainable land practices leading to degradation to sustainable forest and land management. The project has been designed in line with GEF Guidelines for SFM and REDD+ Programme: Azerbaijan is committed to creating the legal, regulatory, scientific and practical grounds for inclusion of its forests in international forest markets; the project creates capacities for the proliferation of good management practices pertinent to SLM, LULUCF and REDD. SFM challenge account funding will help to establish a sound policy environment to recognize the value of forest ecosystem functions and reduce GHG emissions from deforestation and forest degradation.

**A.2. national strategies and plans or reports and assessments under relevant conventions:** The project is aligned with the: (i) Government of Azerbaijan’s priorities and plans, as evidenced by the declaration of 2010 to be the Year of Ecology; (ii) the State Programme on Poverty Reduction and Sustainable Development (2008 – 2015) which identifies land degradation as a socio-economic and environmental problem that “is affecting the ability of rural population to use land to generate income” and places a high priority on sustainable land management, envisaging preparation of a national action plan to combat desertification and the development of an action plan to catalyze SLM, develop incentive mechanisms for sustainable use of natural resources such as pastures; improved overall management of montane ecosystems; improved land and pasture management, provision of extension services, and the development of farmers’ unions; (iii) National Programme for Restoration and Expansion of Forests (2003) which aims to mitigate forest degradation through reforestation and afforestation measures and to support natural forest regeneration; (iv) Complex Action Plan on Improvement of Ecological Conditions for 2006-2010 includes reforestation as one of its main priorities; (v) three of five priority environmental problems identified in the National Environmental Action Plan are linked to desertification: degradation of agricultural land, loss of forestry and biodiversity; and water quality; (vi) State Programme on Efficient Use of Summer-Winter Pastures, Hayfields and Prevention of Desertification in Azerbaijan and the National Programme on Soil Conservation; and (vii) 1st and 2nd National Communication on Climate Change (NCCC) which considers forests and their role in carbon sequestration

1. **Project Overview:**

**B.1. Describe the baseline project and the problem that it seeks to address:** Azerbaijan (AZ) is a mountainous country on the western coast of the Caspian Sea of 86,600 km2 and a population of approximately eight million people. Forests cover 1,178,500 hectares, or 11.6% of the country’s land area. The Greater Caucasus Mountains of northwestern Azerbaijan contain the country’s highest peaks, most extensive forests and 50% of the country’s pasturelands. The Greater Caucasus Mountains lie at the center of a biological crossroads, where species from Europe, Central Asia, the Middle East and North Africa mingle with local endemics. The variety of microclimates, soil and vegetative conditions has led to a broad range of landscapes and unusually high levels of species diversity in the temperate zone. Of the six land-use categories defined for the LULUCF sector, forests and pasturelands represent two of the most important sinks for Carbon (C)in AZ. In 1990, the carbon storage in LULUCF category was 3,509 Gt[[4]](#footnote-4). In 1994, this figure plummeted by 70% due to uncontrolled felling of Azerbaijan’s forests. CO2 removal by forest and other wooded biomass stock increased beginning in 2000; in 2005, the net carbon sequestration of LULUCF nationwide was calculated to be 3,750 Gt CO2[[5]](#footnote-5). Critical ecosystem services sustained by forests and pastures include: supporting (nutrient cycling, soil formation); provisioning (food, fresh water, wood, fuel); regulating (climate & flood regulation), and cultural (aesthetic, educational, recreational).

**Forests:** The Greater Caucasus Mountains ecological zone is a “subtropical mountain system.”[[6]](#footnote-6) The GC’s 483,800 ha of forests are comprised of three main types: coniferous (1.5%), broadleaved (92.6%) and other deciduous trees (5.9% ha). Approximately 15% of these are considered to be “closed forest” with a canopy cover of greater than 40% and the remaining 85% are considered to be “open and fragmented” with 10% - 40% canopy cover and a height of less than 5 meters. These figures demonstrate the significant potential to increase the C stocks and to enhance Azerbaijan’s global role as a Carbon sink. Above ground C stocks in the forests of the GC total 65.8 tonnes C/ha or 31,834,040 tonnes C[[7]](#footnote-7). Assuming healthy forests, with negligible removal due to logging, fuel wood harvesting or grazing, the best case estimate of annual gain in C biomass in the GC forests is calculated to be 331,983 tonnes C/year[[8]](#footnote-8). Threats: In the early 1990s, the country’s native hardwoods with high commercial value (chestnut, alder, linden, oak, beech) were cut or degraded. Despite a ban on commercial harvest of forests, illegal logging is increasing (estimated at 30,000-40,000 m3 annually (30-40 percent of all felling) (UNECE 2003, WB 2005a) and grazing encroaches upon forest lands more and more each year, degrading forest health, structure, quality, and carbon storage potential. Grazing has replaced illegal logging as the gravest threat to healthy natural forests in the GC Mountains. While AZ’s economy is improving, most people in the GC fall under the poverty line of US$24/month. With the end of subsidized energy following independence, many rural households turned to wood, resulting in local deforestation. Emissions from forest degradation come from a reduction in the annual gain in C biomass in GC forests of approximately 20% or 66,397 t /C/year. Climate Change impacts on the composition, extent and distribution of natural forests in the GC, might lead to a rise by 550-950 m of the upper boundary. The actual area of forest will not change in a baseline scenario, as the forest will move up the elevation gradient in response to CC, but will be prevented from doing so by over-grazing. It is expected that hard wood deciduous forests will decrease by ~2.5% and soft wood forests by ~20% and the annual increase of sequestered carbon will decrease by approx. 2% per year. In the baseline situation, CC is projected to aggravate forest degradation, which, will already be increasing due to anthropogenic impact, resulting in long-term land degradation in the GC Mountains.

Baseline project: All the forests in AZ are state-owned. The Government of Azerbaijan has long recognized the importance of forests to its national well-being and has made and continues to make considerable baseline investment to address the forest loss and degradation through reforestation and afforestation. In this regard, the National Programme on the Rehabilitation and Expansion of Forests (adopted by a resolution of the President of Azerbaijan in February 2008) calls for the aforestation or reforestation of 84,000 ha, of which 44,700 ha of new forests, natural recovery of 25,000 ha, and 14,300 ha along transport corridors, reservoirs and coastal areas. Baseline allocation for this programme has been around USD 1 million/year which means that for the life time of the project will be around USD 5 million. Since its inception in 2003, the program has made slow progress and the forest area increased only by 0.4% and this mainly through afforestation. However, the progress in rehabilitation of natural forestlands in the GC has been even slower, mainly due to the lack of funding, but also to weak capacity. To further address the threats coming from the illegal collection of wood for fuel, the Forestry Development Department is considering creating community forests with local villages. Government allocations for creation of community forests with villages are estimated around 540,000 USD. The emerging forest management approach in AZ: (a) is not designed to engage effectively those grazing animals in the forest and causing forest degradation; (b) tends to focus more upon aforestation and reforestation and less upon proactive management and natural rehabilitation of natural forest; (c) falls short of accounting for multiple forest ecosystem services such as flood regulation and forage. To date, Forest Department staff have focused on aforestation of non-forest areas and sporadic enforcement of prohibitions on natural forest resource use rather than engaging in participatory forest management and engagement with forest users. The nascent forest management capacity and the suspension of commercial cutting in AZ provides an opportunity to develop and adopt forest management practices to enhance C storage in GC’s extensive broad-leafed forests. The fact that AZ is in its initial stages of developing modern forest management capacity may facilitate the adoption of new approaches that reduce grazing pressure, restore forest structure, maintain forest cover, and minimize losses of dead organic matter.

**Pastures:** Approximately 591,100 hectares of pasture can be found in the GC: 247,300 ha of summer pastures and 343,800 ha of winter pastures. Although C emission and sequestration figures for grasslands have not yet been developed in AZ, a significant body of work worldwide makes it possible to quantify the potential for C sequestration in AZ’s pasturelands[[9]](#footnote-9). The potential C gain in the pasturelands of GC varies with altitude and soil type, but applying an average figure from existing studies of 0.3 tones C/ha/year of C/ha/year will lead to an estimated carbon stock of GC pastures of 177,330 t C/year. Threats: More than 60% of winter pastures and 70% of summer pastures are eroded and the quality of pastures has declined significantly[[10]](#footnote-10). Approx. 20% of winter pastures are significantly degraded. It is estimated that the productivity of the pastures has declined by 2-3 times compared to levels in the 1950s. Between 1951–2008, the stocking rate for the pastures increased 5 times over the established carrying capacity (Table 1). Only in the past decade, sheep grazing in the GC has nearly tripled. The original vegetation has been replaced by unpalatable or grazing-resistant species. Environmental pressures on pastureland are intensified by the declining practice of moving livestock between summer and winter pastures, and increased livestock density, especially in areas close to the villages (i.e., communal winter pastures, WB 2005a). Despite their low productivity, high mountain areas are used increasingly as pasture for sheep, leading to soil erosion and mudslides. The combined impact of such practices resulted in increasing levels of erosion, depleted soil carbon stocks, increased frequency of mudslides with significant economic and social costs downstream in the form of flooded villages and washed out infrastructure. The trend for emissions from LULUCF mirrors the overall trend with AZ’s emissions – increasing to the point where total emissions will soon surpass 1990 levels (2nd National Communication to UNFCCC).

Table 1: Grazing pressure on Azerbaijan’s Pasturelands.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Year** | **Winter pastures (million ha)** | **Summer pastures (million ha)** | **Number of sheep****(million)** | **Stocking rate sheep equivalents/ha** |
| 1951 | 1.43 | 0.46 | 1.9  | 1.1 |
| 1982 | 1.39 | 0.26 | 2.9 | 1.7 – degradation started |
| 2008 | 1.35 | 0.06 | 8.2  | 5.8 (3x 1982 & 5x 1951 levels) |
| Estimated real number |  | 12  | 8.4 (5x 1982 & 8x 1951 levels) |

Baseline project: The Law on Land Reform places ownership of AZ’s pasturelands, livestock shelters and transhumance corridors with the Government. Some pasture areas and hayfields are under the management of local municipalities. Article 5 on the Land Lease Law details conditions to be fulfilled when leasing land in terms of customizing the lease for each area’s natural context and pasture condition. The Regulation of Winter Pastures (March 2006) devolved the responsibility of leasing grazing rights on State pastures to Rayon (District) Executive Authorities (REA) and Ministry of Agriculture. Grazing rights are leased to individuals or companies on the basis of grazing permits for a period of 10-15 years. Together with the Ministry of Agriculture, the MENR prepared a State Program on Summer and Winter Pasture (2004) listing 12 actions to be undertaken by 2010 by some 15 government agencies and local executive offices and approved by Presidential Decree No. 222. With UNDP’s support, the MENR has been working to lay the foundations for effective climate change mitigation action in the future: (i) MENR is AZ’s Designated National Authority (DNA) on CDM processes; (ii) new procedures for approval of CDM projects have been developed; (iii) definition of “forest” for CDM purposes; (iv) draft National Strategy on CDM; (iv) assessment of GHG emissions and removals form LULUCF in the preparation of its 1st and 2nd National Communication to the UNFCCC. To address the issues of pasture degradation, the Government of Azerbaijan made introduced in May 2004, the State Program on Prevention of Desertification and Efficient Utilization of Hayfields and Summer-Winter Pastures by Presidential Decree No. 222 a comprehensive range of 12 actions to be undertaken by 15 government agencies. Yet the program’s provisions are very general, and a review carried out by UNDP in 2009 showed that it has not developed specific pastureland management mechanisms nor integrated land management measures and thus unlikely to contribute to improving degraded pastures. Even though the programme is approved by the Government, it doesn’t have an associated budget to it.

The baseline projects fall short of achieving the long-term solution of sustainable land and forest management in the Greater Caucasus Landscape securing the flow of multiple ecosystem services, while ensuring ecosystem resilience to climate change, due to the following:

**Inadequate legal, regulatory and institutional framework for sustainable forest and pasture management.** Existing laws include general provisions for maintaining environmental health and call for pastures to be managed to produce multiple benefits. However, there are no specific by-laws for how farmers can achieve multiple benefits and establish sustainable conditions and how results can be monitored and enforced. Existing policies create perverse incentives for maximizing short term gains, with inadequate consideration of long-term implications for sustainability or the economic, social and environmental benefits of alternative pasture and forest land management practice. For example, although the grazing permits are technically given for 10-15 year periods, they are up for renewal each year by local authorities. This in effect means that the leaser has no security in property right, creating an atmosphere of short-term uncertainty, which in turn creates the perverse incentive to take as much from the pasture and forestlands as possible (in terms of forage) because the license may not be renewed next year. Grazing quotas are established in compliance with specific decisions of the Cabinet, but there is no mechanism to punish local officials if they do not follow it. While on paper the number of grazing permits does not exceed the legal limit, in practice the number of animals grazing the land far exceeds the permitted number. The legislation regarding grazing, pasturelands, and forests does not make specific provision for the direct involvement of municipalities and local people in these sectors, making it difficult to develop effective decentralized capacities for planning and regulation. During Soviet times, forest inventory and planning in the Caucasus was centralized in Georgia, leaving little forest management capacity in Azerbaijan after independence, situation that persists today. The ability to determine carrying capacity or the condition and health of a pasture are uncommon skills in AZ. There is no systematic approach to capacity building for SFM/SLM. Essentially no local authorities have any training in how to monitor and enforce by-laws specifying pasture, or on the importance of healthy riparian zones to groundwater recharge, to erosion control, and flood mitigation. At the local level, producer and community-based organizations are poorly developed with limited opportunities for training in sustainable resource management. Livestock grazers receive no extension support or training in sustainable grazing practices.

**Minimal experience among key government and civil society stakeholders in developing and implementing SL&FM practices on the ground**. Improving management practices for pasture and natural forestlands in AZ has been hampered by inadequate coordination at the local level among the MENR, the MoA, REAs and Municipalities. Although the MENR is responsible for conservation and sustainable use of natural resources, it has no role in permitting/leasing grazing lands, which is the purview of MoA and each REA. The adoption and implementation of SLM/SFM at the local rayon level is hampered by the lack of experience among stakeholders in land and resource use planning for pasture and forestlands and the lack of a cross-sectoral, participatory land-use planning process at the rayon level. The real cost of erosion and increased flooding is very high in AZ but this cost has yet to be assessed by local authorities and ascribed to the value of healthy forests and pasturelands. This lack of experience undermines the ability of local governments and communities to ensure that the natural resources upon which they depend are stewarded in a sustainable way.

**Lack of robust (but practical) monitoring protocols and practices for carbon flows and the absence of AZ-tailored methodological approaches for carbon stock field assessment.** The MENR lacks a mechanism to access the cross-sectoral capacity necessary to update the GHG inventory with data on LULUCF for the next national plan. REDD can play key role as an incentive for SFM in AZ, but there is an inadequate policy framework and a lack of standards and methodologies for carbon forestry and SFM.Translating the results of the *NCCC* into solid policy action still remains a challenge. MENR is responsible for managing the forest, but the State Land Committee does the mapping of forest areas, requiring close coordination for carbon flow monitoring and reporting. These maps have yet to be digitized with the benefit of satellite and GIS technologies, reducing their usefulness to MENR in applying them for carbon flow monitoring. Emerging forest management in AZ has not yet started to plan for carbon market engagement and there is no practical experience with how to maximize the coverage and health of natural forests to contribute to REDD. The capacities to plan, implement and monitor specific REDD+ activities and practical SLM initiatives remain limited. On the site level, the capacity to implement multi-functional forest management while capturing the carbon mitigation functions of forests is practically non-existent. Reducing CO2 emissions from and increasing sinks in the LULUCF sector of AZ is hampered by a lack of monitoring protocols and practices for carbon flows and the absence of AZ-tailored methodological approaches for carbon stock field assessment.

**B. 2.** [**incremental cost reasoning**](http://gefweb.org/uploadedFiles/Documents/Council_Documents__%28PDF_DOC%29/GEF_31/C.31.12%20Operational%20Guidelines%20for%20Incremental%20Costs.pdf) **and the associated** [**global environmental benefits**](http://www.thegef.org/gef/sites/thegef.org/files/documents/CPE-Global_Environmental_Benefits_Assessment_Outline.pdf) **to be delivered by the project:** The GEF funded alternative will address barriers to sustainable pasture and forest management in the Greater Caucasus Landscape. In doing so would influence production practices employed by economic sectors and will support measures to mitigate CC such as managing natural forests to emphasize natural regeneration through improved management of grazing and wood collecting in forests will avoid emissions caused by degradation, increase sequestration through enhanced biomass and improve the productivity of forests and pasturelands. This would result global benefits both in the short and longer terms.

The **objective** of the GEF funded alternative is the sustainable land and forest management in the Greater Caucasus Landscape secures the flow of multiple ecosystem services, including carbon storage and sequestration and water provisioning services, while ensuring ecosystem resilience to climate change. The project will engineer a paradigm shift from the current unsustainable practices to sustainable land and forest management practice, as detailed in the table below:

| **Current Practice**  | **Alternative to be put in place by the project** | **Selected Benefits** |
| --- | --- | --- |
| Overgrazing – exceeding carrying capacity by eight times; resulting in in increased erosion. – The annual erosion rate in hilly areas, due to overgrazing and illegal felling is estimated 100-500 m3 per hectare (ADB 2005) | Improved pasture management:* Closure of severely degraded pastures for 2 – 3 years;
* Decrease grazing rate of moderately degraded pastures by 50%;
* Rotational grazing to maintain turf layer;
* Stimulate grasses for vigorous growth and healthy root systems;
* Using the grazing process to feed livestock through maintaining soil cover and managing plant species composition to maintain feed quality;
* Soil conservation measures - improvement of soil fertility, water accumulation/preservation, windbreaks, buffer strips to reduce erosion;
* Hay farming in support of intensive pastures established on appropriate lands to remove loads on natural meadows.
* Restoration: Sowing with more productive species; fertilization
 | Carbon sequestration through:- Improved pasture management on 12,500 ha of pastures: 68,750tCO2 eq  (12,500 ha x 1.1 tCO2eq/ha/y x 5 years ) - Pasture Restoration:9,000 ha x 5.5 tCO2 eq/ha/y x 5 years = 247,500Decrease in soil erosion (baseline level will be determined in preparation stage)Improved vegetation cover of 12,500 ha of pastures (baseline tbd at preparation stageImproved water quality |
| Illegal logging for fuel wood; Grazing in forests; Focus on plantations and not rehabilitation of natural forests.  | Sustainable forest management practices * forest exclusion zones;
* reducing wood collecting pressures;
* limit grazing in forest;
* Restoration of degraded community forests
 | - Avoiding emissions from forest degradation of: 245,667 t CO2 eq/year Calculation:331,983 t C/year (annual gain in C biomass is) \* 20% of annual gain affected by degradation = 66,397tC/year\*3.7 = 245,667 t CO2 eq/year - Carbon sequestration through Forest restoration: 129,367tCO2eqCalculation:5,000 ha\*3 (t dm/ha)\*1(above ground only)\* = 7,050tC/year7,050tC/year\*3.67 (conversion factor) = 25,873.5 tCO2eq\*5 years = 129,367tCO2eq- Increase in forest cover (target will be determined during the preparation stage)- Tree density (target to be determined during the preparation stage) |

**Component 1: National Framework and Policies to Support SLM/SFM in AZ’s Greater Caucasus Mountains.** The project will enable stakeholders to produce an enabling legal, policy, planning and institutional environment for integrating sustainable land and forest management principles within the State Programmes and district level frameworks. By-laws under the Land Lease Law will be developed with specific healthy pasture criteria and guidance on how these criteria are to be enforced and monitored. Minimum management standards for pasture and soil health to inform and improve grazing and pastureland management will be developed and adopted. Targeted amendments to State policy and programming will be promulgated to support the objectives of SLM, SFM and REDD demonstrations under Components 2 and 3, including appropriate agro-environmental incentives for sustainable forest and pastureland management. The training center of the MENR will develop and adopt a systematic long-term approach to capacity building for SFM/SLM as part of its in-house program Information dissemination and awareness-raising activities will be conducted, targeting local resource users. New networking partnership platforms will be formed for capacity building at the rayon and community levels.

**Component 2: Pilot-based models for SLM/ SFM in the Greater Caucasus.** Pilot rayon-level inter-sectoral committees for cooperation on land management will be established in three rayons and will be supported in the development of rayon territorial plans[[11]](#footnote-11) which will integrate SLM and SFM priorities. Cross-sectoral expert groups will be fully capacitated to develop plans jointly with each rayon-level committee consisting of representatives from: MENR, REA, and Office of the Municipality (OM), and rayon-level grazers association. A GIS database and maps will be developed for each pilot rayon, listing priority areas of critical natural forest and pastures with healthy plant communities; areas under moderate pressure, areas vulnerable to permanent degradation, extensively used for grazing or suffering high rates of erosion. Field demonstrations will implement key elements of the pilot rayon plans as specified in the table above. The piloting of agro**-**environmental incentives will be incorporated into at least 2 of the 3 pilot demonstrations linked to specific indicators of forest and pastureland health for farmers to reduce over-grazing in sensitive areas such as natural forestlands and alpine meadows.

**Component 3: Enhancement of carbon storage potential in Greater Caucasus region demonstrated:** will support the development and operationalization of a national LULUCF and REDD Action Plan in order to integrate carbon sequestration into forestry and pasture land-use planning and decision-making. A capacitated LULUCF GHG Working Group will be established within MENR’s Forest Development Department. Carbon flow monitoring protocols will be designed and integrated into the national forest monitoring system, including refined methodological approaches for carbon stock field assessment. Data processing and analysis will be done through a GIS based software module to enable reporting to UNFCCC on the potential for carbon sequestration at LULUCF forest and non-forest ecosystems and emission removals and reductions from REDD activities. REDD+ pilots will be implemented across 14,000 ha at two sites focusing on enhancing carbon storage potential of forests and pasturelands in the GC. Carbon enhancement actions will be planned and implemented accordingly to achieve emission reductions, and to measure and verify the carbon storage. Carbon flow monitoring protocols developed under this same component will be field-tested for accuracy and practicality.

The immediate **global benefits** are: (i) Sustainable management of 483,800 ha forest and 591,100 ha pasturelands in the GC; (ii) Vegetative cover maintained or increased across 12,500 ha of pastures under improved land use management; (iii) 20,000 ha of forestlands under improved multifunctional forest management; (iv) avoiding emissions from forest degradation of 245,667 t CO2 eq/year ; (v) improved pasture management and pasture restoration pasture management resulting in a carbon sequestration potential of 316,250 CO2 eq in pastureland; (vi) restoration of 5,000 ha of degraded forests result in enhancement of carbon stock of 129,367 tCO2eq.

**B.3. Describe the socio-economic benefits to be delivered by the Project at the national and local levels, including consideration of gender dimensions, and how these will support the achievement of global environment benefits. As a background information, read** [**Mainstreaming Gender at the GEF."**](http://www.thegef.org/gef/sites/thegef.org/files/publication/mainstreaming-gender-at-the-GEF.pdf)**:** Reversing present land degradation trends will create a more profitable and productive agricultural sector resulting in local livelihood improvements such as food security and increased incomes for men and women in degraded mountainous areas.Sustainable management of forestry and pastures is crucial for moderating rainfall runoff to reduce flooding that affects downstream populations at the foothills of the Greater Caucasus. Conservation and enhancement of carbon stocks promises considerable benefits to AZ as income from carbon credits has the potential to be a significant new source of investment to rehabilitate forests and degraded land and to conserve biodiversity. Furthermore, there are significant emitting industries in AZ that may look for local investments to offset their emissions if the country can develop the capacity to combat climate change in these ways and to measure and monitor the carbon movements. By incentivizing application of SLM/SFM, the project will create an enabling environment for greater investments in SLM activities generating global environmental benefits beyond the project’s lifetime. Moreover, the project also covers the geographic region with estimated population of nearly 900,000 people, where the women constitute 50%. Bearing this in mind, women would also benefit from and participate in the sustainable forest and pasture management practices that constitutes large portion of income of the rural households in the territory.

**B.4. Indicate risks, including climate change risks and measures that address these risks:**

| **Risk** | **Level** | **Mitigation** |
| --- | --- | --- |
| Opening up management to engage local stakeholders more robustly contains some risk in Azerbaijan, where centralized approaches are still largely the norm.  | M | In seeking a collaborative management system the project is building on existing local authorities and their existing responsibilities, backed up by existing laws and policies that do open the door for more local engagement and participation. The project will seek to actively cooperate with local municipalities- that are composed of community representatives and are responsible for some aspects of land management such as leasing pasture lands, collection of property and land related taxes and ensuring effective management of revenues. The Ministry of Ecology is fully committed to engage local communities and stakeholders in forest and pasture manager and a decision was taken in this regard very recently. This is a positive development indicative of the government’s opening up to new approaches involving community-based management.  |
| Market risks the relative value of land use could change (the value of livestock could go up or down)..  | M-L | The project seeks to put into place program frameworks for integrated natural resource management that are robust and resilient enough to accommodate changes in land-use values. Changes in market values will either make it easier or more difficult for example, to enforce restrictions on grazing, requiring an adaptive response.  |
| Government priorities may change from forest protection to industrial use. | Low | The project will stress the value of critical ecosystem services provided by the forests, in addition to carbon sequestration, such as erosion control. Erosion/flooding are high profile issues in AZ and healthy forests are central to addressing this problem.  |
| New threats could emerge, such as insect infestations or disease caused by climate change.  | Med | The project is not being designed to respond rigidly to one threat or another – it seeks to put in place processes and tools that will enable stakeholders to adapt what SFM or SLM means and how it translates into practical improved management on the ground for any given context defined by any given threat.  |

**B.5.** **Identify key stakeholders involved in the project including the private sector, civil society organizations, local and indigenous communities, and their respective roles, as applicable:**

|  **Stakeholder** | **Relevant roles** |
| --- | --- |
| Ministry of Ecology and Natural Resources; | Government institution and implementing partner responsible for coordination of the state programmes on pasture and forest management.  |
| Ministry of Agriculture | Establishes grazing quotas and promotes land-use. |
| Rayon Executive Authority | Presidential authority present in each rayon responsible for leasing grazing rights on State pastures.  |
| State Committee for the Land Cadastre  | State agency that maintains maps for pastures and land used for other agricultural purposes and conducts land surveys. |
| Rayon Executive Authorities | A rayon is the sub-national political entity in Azerbaijan – a region or state. Each rayon has one or more municipalities, whose leaders are locally elected and whose responsibilities are local. Each rayon also has one Executive Authority, which is the Presidential authority at the local level.  |
| Municipalities | Manage municipal-owned pasturelands and is viewed as a possible home for future community forests. |
| Animal owners, shepherds, farmers, local communities | Key users and beneficiaries of the mountain pasturelands and forests that include both men and women involved living in this area. |

**B.6. Outline the coordination with other related initiatives:** The project will coordinate with: (i) the GEF-funded CEPF program operating in the Caucasus region; (ii) Government of AZ/FAO project, “Sustainable Management of Pastures”, which builds upon a recent UNDP project on pasture land restoration and will conduct training in sustainable grazing practices; (iii) the GTZ/MENR project, “Sustainable Management of Biodiversity, South Caucasus”, which addresses grazing and forest management issues as they relate to biodiversity conservation within and outside of protected areas. Coordination with the GTZ project will be mainly implemented in the direction of upgrading the legislative basis for more sustainable pasture and forest use and protection of bio-diversity and coordination of efforts in development of one jointly identified rayon territorial plan.(output 1 & 2 ) Whereas, cooperation with FAO will be mainly in the area of joint efforts in preparation and testing of different techniques in more robust local community involvement in more effective pasture management and rehabilitation (output 2). Both partners were met by UNDP during the PIF preparation phase and agreed to be associated with this project as co-financing partners. Following UNDP procedures, FAO and GTZ will be members of the Project Steering Committee that will meet regularly to review the project plan and progress and coordinate inputs. In 2007, UNDP supported the finalization of the First National Communication (FNC) of AZ to UNFCCC. Several projects were developed with UNDP technical assistance as a follow up to the FNC. The “Capacity Building for Clean Development Mechanism (CDM) in AZ”project prepared the Government to access carbon investment financing by building national capacity to participate in the CDM. The project also generated: the institutional framework for implementation of CDM, a draft medium-term CDM strategy, and the legal and technical framework for voluntary carbon market projects. The project builds upon the work done under the UNDP-MoENR-Norway Project entitled “Capacity Building and On-the-Ground Investments for Integrated and Sustainable Land Management.” The project also builds upon key elements in the draft National Action Plan for Sustainable Land Management elaborated under this project. The project was designed to complement and benefit from the adaptation and capacity building work of the UNDP-GEF SCCF project in AZ.

**c. describe the GEF agency’s comparative advantage to implement this project:** UNDP’s strategy in environment and energy is to support transition to low carbon and climate resilient ecosystems, communities and ecosystems. In Europe and CIS, UNDP is implementing over 40 GEF projects in biodiversity and SLM in the region through its network of 22 Country Offices. In AZ, involvement to date in environmental governance and sustainable development has focused on improving the capacity of authorities to plan and implement integrated approaches to environmental and energy development. In this context, UNDP has provided support to the Azeri government to integrate global environmental concerns and commitments into national and regional planning. Land and biodiversity management represent one of the three sub-areas of environmental assistance that UNDP is providing to AZ within the UNDAF, including Outcome 2.8 “National environmental protection and natural resource management improve.” UNDP already assists AZ in promoting, designing and implementing activities consistent with both the GEF mandate and national sustainable development plans. UNDP has an acknowledged comparative advantage for capacity building and technical assistance in the field of climate change and land degradation, and has worked with the proposed executing agency, the MENR, on LD and CC before, including the LD project referenced under the Part B6 above – “Capacity Building and On-the-Ground Investments for Integrated and Sustainable Land Management.”. The project fully complies with the comparative advantages matrix approved by the GEF Council.

**c.1. indicate the co-financing amount the GEF agency is bringing to the project:**

UNDP’s comparative advantage lies in its capacity to broker finance from national and international sources, to assist countries to meet their environmental finance needs. In line with UNDP’s mandate as chair of the UNDG it plays a key role in the leveraging of resources from a range of funding sources in the construction of a project funding package. UNDP has brokered US$ 11.4 million for this project from multiple sources, to be confirmed during further project preparation. This includes a US$ 230,000 UNDP TRAC allocation to Azerbaijan. In kind UNDP support will also be provided through its broader poverty and governance portfolio and through the range of technical staff working in the environment.

**c.2. how does the project fit into the GEF agency’s program (reflected in documents such as UNDAF, CAS, etc.) and staff capacity in the country to follow up project implementation:** In the preparation of UNDAF sustainable land management has been recognized as a priority area for UN support to the Government. The project fits the newly signed 2011-2015 UNDAF and contributes to the achievement of the UNDP Outcome 1.3.9 “Management of mountainous ecosystems is improved to address degradation of pastures”. The UNDP Country Office will assign six staff members to be responsible for the overall management and supervision of the project implementation. From the programme side the project will be under the overall supervision of the Assistant Resident Representative and Head of the Energy and Environment unit, who has a MBA in Environmental Management in 13 years of experience in environmental field and project management, more than half dealing with issues of pasture management in Azerbaijan, with the direct support from an Environment Programme Analyst with a Master in Public Affairs and 13 years of project management experience with the World Bank and UNDP, and an Environment Programme Associate with a MBA in management and 5 years of experience in project management and environment. Implementation support on Human Resources and Finance will be provided by three staff members – Head of Finance Unit (Masters in Finance and Credit and 8 years of experience in UNDP finance), Procurement Officer (12 years of experience) and HR associate (MA, 14 years of experience in HR).

**part iii: approval/endorsement by gef operational focal point(s) and GEF agency(ies)**

**A. Record of Endorsement of GEF Operational Focal Point (S) on Behalf of the Government(S):** (Please attach the [Operational Focal Point endorsement letter(s)](http://gefweb.org/uploadedFiles/Projects/Templates_and_Guidelines/OFP%20Endorsement%20Template-Aug9rev.doc) with this template).

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Position** | **Ministry** | **Date** |
| Husseyn Bagirov | Minister | Ministry of Ecology and Natural Resources | August 23, 2010 |

**B. GEF Agency(ies) Certification**

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| --- |
| This request has been prepared in accordance with GEF policies and procedures and meets the GEF criteria for project identification and preparation. |
| **Agency Coordinator, name** | **Signature** | **Date** | **Project Contact Person** | **Telephone** | **Email Address** |
| Yannick GlemarecExecutive CoordinatorUNDP/GEF |  | February 25, 2011 | Adriana Dinu | +421-2-59-337-332 | adriana.dinu@undp.org  |

1. GEF will finance management cost that is solely linked to GEF financing of the project. [↑](#footnote-ref-1)
2. Based on: Chapter 4 and Tables 4.7 & 4.9 IPCC 2006 IPCC Guidelines for National Greenhouse Gas Inventories; coefficients used for Asian sub-tropical (broad-leafed) mountain forests. No below-ground biomass calculation is included. (If it was included, figures would certainly go up). [↑](#footnote-ref-2)
3. Same as footnote #3. [↑](#footnote-ref-3)
4. Table 2.5, 1st National Communication to UNFCCC [↑](#footnote-ref-4)
5. Figure 3.2-4, 2nd National Communication to UNFCCC [↑](#footnote-ref-5)
6. 2006 IPCC Guidelines for National Greenhouse Gas Inventories, page 4.9. [↑](#footnote-ref-6)
7. Forest C stocks in the sub-tropical mountain system of the GC were calculated using the default value of 0.47 tonne C/tonne of dry matter (dm). Above ground biomass in forests of subtropical mountain systems of Asia is 140 tonne dm/ha. [↑](#footnote-ref-7)
8. Tier 1 Calculation, Section 4.2.1.4 IPCC Guidelines [↑](#footnote-ref-8)
9. C. Neeely et. al. 2009. Review of Evidence on Dryland Pastoral Systems and Climate Change. FAO. & Follet, R. F. et. al. 2001. The Potential of US Grazing Lands to Sequester Carbon and Mitigate the Greenhouse Effect. CRC Press. [↑](#footnote-ref-9)
10. AZ Scientific-Research Institute for Irrigation and Erosion [↑](#footnote-ref-10)
11. Rayon selection will be confirmed at the PPG. The 3 pilot rayons will represent three major ecological districts – northwestern, central and eastern along the southern slope of the Greater Caucasus. Thus this Component will produce a model of land-use planning that will be adjusted for the ecological, social, and economic varieties relevant for replication in the neighboring districts beyond the project. [↑](#footnote-ref-11)