United Nations Development Programme
Country: Republic of Armenia
Project Document

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Project Title:	Sustainable management of pastures and forest in Armenia to demonstrate climate change mitigation and adaptation benefits and dividends for local communities
UNDAF Outcome: 4	Environment and disaster risk reduction is integrated into national and local development frameworks
Expected CP Outcome: 4.1	Armenia is better able to address key environmental challenges including climate change and natural resource management
Expected CP Output: 4.1.4	National and Local capacities to develop innovative policies and practices to address climate change mitigation and adaptation strengthened
Implementing Partner:	Ministry of Nature Protection of RA

Brief Description

The proposed project concentrates on the protection and restoration of the most vulnerable and degraded mountain rangelands (pastures and meadows) and forest ecosystems. The project aims to integrate environmental and social concerns into the management of upper watersheds and will help restore natural ecosystems (pastures, forest) and provide enabling environment for adoption of sustainable forest and rangeland management practices, as well as efficient farming practices which are expected to reduce pressures on environmentally sensitive areas and reduce carbon release.

The project's development objective is adoption of sustainable natural resource management practices under adverse impacts of climate change on mountainous ecosystems of Armenia to ensure ecosystems integrity and sustained provision of ecosystem services, including carbon capture and storage. Introduction of pasture management system, including rehabilitation of 2000 ha of meadows and forest belts (60 ha) is targeted in the selected region.

Programme Period:	2013-2016
Atlas Project/Output ID:	00073028/00085981
PIMS number:	5195
Start date:	May 2013
End Date:	December 2016
LPAC Meeting Date:	17.04.2013

Total budget:	$ 1,489,609.00*
Total allocated resources:	
• Regular:	$ 100,000.00
• Other:	
EC	$ 1,298,700.00
GMS	$ 90,909.00

*The total EC funded budget that is a subject of approval for this project amounts 1,000,000 EUR. As per UNDP financial management rules, the budget will be maintained through UNDP financial system "Atlas" in US dollars. The final amount of the EC component budget in US dollars will depend on actual exchange rates at the time of allocation of further installments from EU to UN. Exchange rate used for conversion in this project document was 1 euro = 1.2987 USD.

Agreed by the Government:

Name: Aram Harutyunyan

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Agreed by UNDP:

Name: Bradley Busetto

Title: UNDP Resident Representative

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List of Abbreviations

EC	- European Commission
UNDP	- United Nations Development Programme
LPAC	- Local Project Appraisal Committee
WWF	- World Wide Fund for Nature
UNFCCC	- United Nations Framework Convention on Climate Change
GHG	- Green House Gases
LULUCF	- Land Use, Land Use Change in Forestry
IPCC	- Integrated Panel on Climate Change
CVEG	- Carbon in Vegetation
SOC	- Carbon in Soil
GEF	- Global Environment Facility
SNCO	- State Non-commercial Organization
WB	- World Bank
REC	- Regional Environmental Center
COP	- Conference of the Parties
IFAD	- International Fund for Agriculture Development
DRR	- Deputy Resident Representative
EG	- Environmental Governance
LSG	- Local Self-Government
NGO	- Non-governmental Organization
CBO	- Community Based Organization
CO	- Country Office
AWP	- Annual Work Plan
APR	- Annual Progress Report
IW	- Inception Workshop
CPAP	- Country Programme Action Plan
SBAA	- Standard Basic Assistance Agreement
ISS	- Implementation Support Service
GMS	- General Management Service

1. Background and problem statement

1.1 Project Background

Armenia is a small mountainous, landlocked country in the South Caucasus. Around 76.5% of Armenia's territory is 1000-2500m above sea level. Armenia is a country of climate contradictions: even in small distances almost six climate patterns – from sub-tropical to frosty highlands - may be observed due to the complex terrain. Due to vertical alternation 10 landscape zones have been formed here – from semi-desert to snowy highlands. Location of country at the juncture of three bio-geographical provinces, the diversity of climatic conditions and an active geological record has resulted in the presence of rich diversity of ecosystems and species with high rate of endemism as well as making a country is one of the centers of plant genetic diversity. Country is part of WWFs "Global 200" and one of the Conservation International's world hotspot.

The mountain ecosystems are an important productive asset for country's population 50% of which is living in rural areas and depends on ecosystem goods and services for centuries, ensuring population well-being and development of economic sectors, including agriculture (19 percent of Gross Domestic Product.). However, still high level rate of rural poverty, serious economic decline after the collapse of Soviet Union and destruction of infrastructure, current global recession, rising food prices along with weak institutional setup and capacities of government to proper develop, implement and control national programmes, illegal operations and over-exploitation of natural resources, negative impact of climate change, etc. creating cumulative impact resulting in loss of vulnerable habitats and species, degradation of ecosystems (for instance 82% of land resources is under desertification and erosion, including arable lands, decline in soil fertility and productivity of pastures, etc.), reduction of ecological functionality and the growing insecurity of ecosystem services.

In addition to anthropogenic impact over the last 100 years the climate change represents an additional significant factor of threat to on already at risk ecosystems and economic sectors. According to the Second National Communication to UNFCCC increase in average temperature (0.85^{O}) and decrease in precipitation (6%) is already evident in the territory of Armenia (observations started since 1930), the average temperature increase by 4,8 -5,1˚C and precipitation reduction by 8-24% is expected in Armenia by the 2100. According to projections, an altitude shift of existence borders of main natural ecosystems by 250-300 meters up on mountain profile within next 100 years is expected. This would generate substantial changes in natural ecosystems and redistribution of their areas with subsequent distortion of natural habitats of certain plant and animal species. It was shown that especially vulnerable would be sub-alpine and alpine ecosystems (up to 3000 meters above the sea level) from where these could be completely ousted. Substantial unfavorable changes may also occur in other ecosystems, particularly, enclave spots of all types of ecosystems are extremely vulnerable when surrounded with agricultural or urban landscapes. As a result, extinction of a whole range of rare plant and animal species is possible.

It should be noted, that climate change in Armenia is strongly contributing to the fragile mountainous ecosystem degradation (soil erosion, reduction of productivity of pastures and meadows, reduction of forests resilience and productivity). Unsustainable forest management and land use, poor agricultural practices accompanied with climate aridization results in the depletion of carbon sinks and storages. Thus the achievement of sustainable natural resource management will be determined in part by Armenia's ability to create management regimes and adaptive mechanisms to compensate for climate changes impacts, including establishment of system buffers, carbon stock monitoring system and proper safeguards.

1.2 Project scope

The proposed project concentrates on the protection and restoration of the most vulnerable and degraded mountain rangelands (pastures and meadows) and forest ecosystems. The project aims to integrate environmental and social concerns into the management of upper watersheds and will help restore natural ecosystems (pastures, forest) and provide enabling environment for adoption of sustainable forest and rangeland management practices, as well as efficient farming practices which are expected to reduce pressures on environmentally sensitive areas and reduce carbon release. The selected ecosystems support 2,000 floral species including important agro-biodiversity such as Lotus, Trifolium, Onobrychis, Medicago, Astragalus, Juniperus, etc.

1.3 Problem statement

The current status of natural rangelands covering 1,244,000 ha in Armenia is extremely unsatisfactory. Anthropogenic factors have severely affected the pasturelands of Armenia, and a large proportion of grasslands have deteriorated in quality. Almost half of the pastures are exposed to degradation and their biological productivity fell by 1.5 - 2 times compared with 1950s. Management of these lands has been poor to date, leading to substantial declines in areas suitable for grazing.

Armenia is a forest-poor country. According to the land balance data of 2006, forest lands cover about 373.0 thousand hectares, with 308.5 thousand hectares forest-covered (10.4% of country's territory). Forests mainly grow on steep slopes in cross-country mountains at 550-2400 m altitude. About 270 tree and bush species, including endemic, relict and rare species, grow in the forests.

The changes in grazing regimes in post-privatization have led to decreases in floristic diversity in some areas where grazing has declined, but more importantly increased habitat degradation in over-grazed areas. Over-grazing has resulted in land erosion, formation of boggy areas and reduction in plant diversity. For example, while between 100 and 700 plant species are normally supported by steppe systems, the number of species found after intensive over-grazing drops to around 15. Similar declines in richness are reported in meadow systems (from 125 to around 25 after over-grazing)1. Over-grazing has also resulted in changes in species composition, with declines in populations of valuable fodder plants and increases in weeds and poisonous species (such as crowfoot, thistle, creeping thistle, as well as Euphorbia sequieriana, and Astragalus spp.). In addition the over-collection of particular herb species for human consumption from natural pastures has pushed these species to the edge of extinction.

Grazing patterns, like crop production patterns, have undergone a fundamental shift since the economic transition began. Small average household livestock numbers, collapse of organized grazing arrangements, high costs of accessing more distant pastures, led to increased use of pastures located around villages. These areas have become subject to heavy pressure from overgrazing, while more-remote summer pastures and Alpine meadows remain under utilized. Pressure on village pastures is further increased by the shortened pen-feeding periods practiced by framers as winter fodder becomes relatively expensive. In a further turn of the vicious cycle, declining livestock productivity has pushed households to increase the livestock number, which has added further pressure on pastures. Most community pastures are now overgrazed, subject to various

1 Ministry of Nature Protection of the Republic of Armenia, World Bank Armenia County Office - Natural resources management and poverty reduction project (2002).

forms of degradation that range from biodiversity reduction to change in vegetative cover to generation of slop erosion.

The current low forest cover is a result of large-scale deforestation and forest degradation, which took place during the energy crisis in the early 1990's. Current levels of reforestation are low. Illegal logging, even with enhanced state control during the recent years, still takes place. Unmanaged selective felling of valuable tree species is leading to degradation of the remaining forest stock. Especially at the upper border of the forest belt, overgrazing is preventing natural forest regeneration. The continued forest degradation is leading to loss of biodiversity and the reduced forest integrity is hampering the resilience of forest ecosystems to recover from further pressures, such as adverse impacts induced by climate change. Furthermore, deforestation can lead to increased water run-off with risks of landslides and erosion, contribute to sedimentation of waterways, as well as reduced replenishment of underground water resources.

1.4 Climate change impact

According to the World Bank assessment, Armenia is among the most sensitive countries in the Europe and Central Asia region in regard to climate change. Increased temperatures and reduced precipitation accelerate the desertification processes and will have a negative impact on sectors which depend on the climate and natural resources. Climate change will result in the expansion of desert, semi desert and arid open forests, due to vertical shift of their upper limits. Further, upward shift of steppe on forest ecosystems by 250-300 m will occur, in the same time the forest belt shift will reduces the area of meadow ecosystems. As a result, significant changes in the composition and structure of ecosystems will take place. More than 17,000 hectares of forest (5-5.5% of total forest areas) may disappear due to unfavorable conditions for forest growth.

According to climate change scenarios in Armenia (the second national communication to UNFCCC) significant changes in mountain rangelands and respectively in production levels may be occurred. Thus, the reduction of pasture areas as a whole and of their productivity for 4-10% is expected. More specifically reduction of the areas of the most valuable and high-yield pastures of the sub-Alpine belt for 19% and Alpine belt - for 22% expected, as well as decrease in productivity of mountain grasslands for 7-10%. Increase of the share of poisonous, prickly and weed plants in structure of vegetation pastures, fall of their productivity and reduction of forage quality of the grass. As a result reduction of the head of the livestock for 30% and the dairy cattle production for 28-33% will be observed.

According to the first national green house gas Inventory, the "Energy" sector accounted for the major part of the total GHG emissions in 1990 in Armenia. However according to the second GHG inventory, the share of "Energy" sector emissions reduced in the period of 1997-2006 while a growing trend in GHG emissions from the agriculture sector should be emphasized. In 1990, emissions from the "Agriculture" sector accounted for 4% of the total GHG emissions, and in 1997-2006 period it amounted to 17,9%. Rapid changes in emission/removals balance have taken place in the LULUCF sector: from -736 Gg in 1990 to +1563.6 Gg in 2000, which is mainly due to an increase in the volume of forest logging and loss of quality of arable lands and meadows. The forest sector during those years has been shifted from net sink to net emitter. The table below demonstrates net flows of greenhouse gases in the land use and forestry sector in 1990 and 2000.

Table 1. Net flows of greenhouse gases in LULUCF sector, 1990 and 2000, (Gg CO2 eq)

Sectoral categories	Net GHG flows (Gg CO2 eq)	
	1990	2000

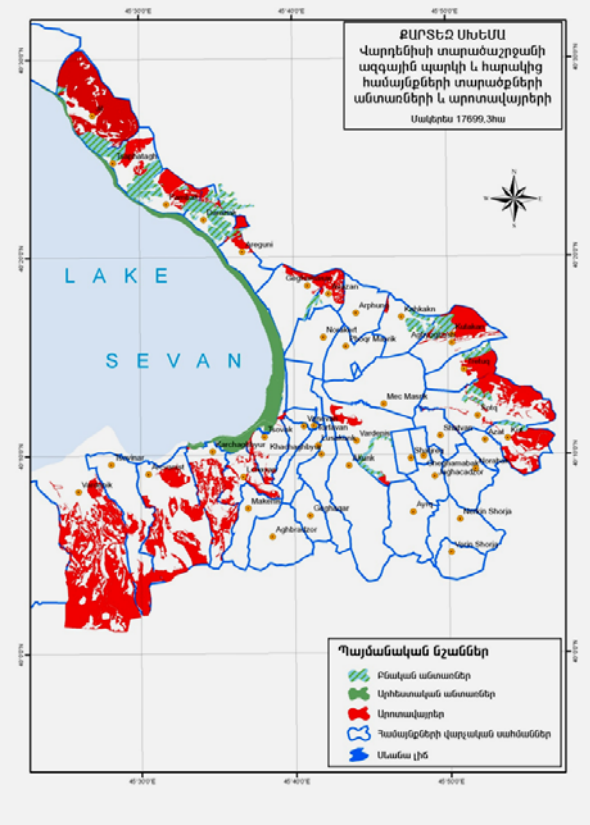
5. Land use, land use change and forestry, total	-736,0	1 563,6
5A Forestlands	-837,1	441,0
5A1 forestland remaining forestland	-816,4	441,0
5A2 land converted into forest land	-20,7	0,0
5B Croplands	-134,0	501,8
5B1 croplands remaining cropland	-150,2	501,8
5B2 land converted into cropland	16,2	0,0
5C Grassland	173,4	598,3
5C1 grasslands remaining grassland	173,4	305,5
5C2 lands converted into grassland	0,0	292,8
5D Wetlands	71,2	27,7
5D1 wetlands remaining wetland	55,5	28,3
5D2 lands converted into wetland	15,7	0,0
5E Settlements	-9,4	-5,2
5E1 settlements remaining settlement	-12,5	-5,2
5E2 lands converted into settlement	3,0	0,0
5F Other lands	n/c	n/c
5F1 lands converted into other land*	n/c	n/c

*According to IPCC Best Practice Guidelines the emissions are not calculated for the lands ("Other lands") which are not subject to human interference.

2. Project Development Objective

The project's development objective is adoption of sustainable natural resource management practices under adverse impacts of climate change on mountainous ecosystems of Armenia to ensure ecosystems integrity and sustained provision of ecosystem services, including carbon capture and storage. Introduction of pasture management system, including rehabilitation of 2000 ha of meadows and forest belts (60 ha) is targeted in the selected region. The project will help avert further deterioration of natural resources (biodiversity, land, water, forest), promote better understanding of problems related to climate change impact and potential for adaptive management, its socio-economic dimension, agricultural productivity and food security, enhancement of local capacities for sustaining their livelihood level in face of climate change. The projects results will not be limited to the project target area, as the project envisages replication strategy to extend the gained experience and upscale best practices in other regions of the country.

2.1 Project area



The Gegharkunik marz (province) has been selected for the project intervention, the main target region within the marz will be Vardenis region. The Gegharkunik marz covers 5348 sq. km (including 1270 sq.km of lake Sevan water mirror), situated in the East of the Republic of Armenia. The altitude of the region ranges from 2,000 to 3,500 m and the population is 238,500, of which 84% are rural. A sample of rural villages in the marz indicates that the incidence of poverty is higher than the national average for rural areas.

Marz surrounding Lake Sevan –the largest water basin in Armenia of high economic, environmental and cultural heritage values (one of the highest fresh water lakes in the world - 1916 m a.s.l.). "Sevan" national park (150.1 thous. ha) is located in the territory of the marz with 24.9 thous. ha of which are lakeside land territories. Special zones have been designated in the "Sevan" national park: protection zone with a strict regime of protection, recreational zone and economic zone for economic activity. These areas in Sevan National Park do not make continuous or uninterrupted zones (though called zones) and spread all over the park territory. The reserve zone of 3700 ha consists of five reserve areas - Artanish, Vardenis, Lichk, Noraduz and Norashen as well as ten other protected areas stretching along the beds of large rivers on the length of 500 m starting from the river mouth. The recreational zone occupies 4200 ha of coastal area. It is envisaged for recreational and health purposes. The economic zone incorporates areas for fishery and forestry activities. When referring to the economic zone it is necessary to mention economic activities being carried out in the buffer zone of the national park, which directly affect its water and terrestrial areas.

There is a high rate of population migration (mostly seasonal labor migration) in the region due to lack of job opportunities, therefore major part of population involved into agricultural activities, thus the region is one of the leader in agriculture development, particularly cattle-breeding and husbandry products. Production of grain and potato is also well developed. The marz of Gegharkunik was the major supplier of fresh fish to the population of the republic.

2.2 Biodiversity value

The project area includes a variety of mountain ecosystems: meadows, relict forests, mountain steppes, aquatic ecosystems, which host a significant share of country's biodiversity. The species of 1600 plants and 330 animals are preserved here. The list of endemic and very rare kinds of plants present in the area includes: Falcaria falcarioides, Peucedanum zedelmeyerianum, Isatis arnoldiana, Eleocharis transcaucasica, Puccinellia sevangensis, Menyanthes trifoliata, Astragalus goktschaicus, Astragalus schuschensis Carum

komarovii, Peucedanum zedelmeyerianum, Puccinellia grossheimiana .Region is very rich in fodder plants (mainly families Gramineae and Leguminosae) creating favorable basis for animal farming.

The forests of the marz have significant ecological value. Relict juniper shrub forests (including Juniperus polycarpos, J.foetidissima, J.sabina, J.oblongs) are growing in Vardenis region above 1950m a.s.l. comprising 80% (around 2900 ha) of region's forest resources. Oak (Quercus macranthera) and other valuable tree and bush species are known here, part of which at the coastal zone. Apart of anthropogenic pressure the raise of lake Sevan water level is an additional threat to surrounding forest areas. Only in Vardenis region 700 hectares of forest are being flooded up to date.

Among the vertebrates species of key concern include a three endemic fish species. The races of some of the endemic trout have been threatened and now practically disappeared (Salmo ischchan, S. ischchan danilewskii, S. ischchan aestivalis) due to declines in the water level of Lake Sevan and over-fishing, while populations of 'gegharkuni' (S. ishchchan gegarkuni) are currently maintained through artificial breeding. 'Sevan beghlou' (Barbus lacerta goktschaicus) declined following the changes in Lake Sevan (leading to habitat loss) and this species is now also listed in the Red Data Book of Armenia. The region Republic of Armenia is one of the migration routes of near-water and water-marsh birds, flying toward the north from the Tigris and Euphrates valley, as well as lakes and seashores of Central Africa and Asia minor. Many species that had been previously nesting in the former territory of Gilli lake (near Sevan lake) are still spotted in the project target area each year as migrating birds and nest in second best habitats. The most important are: Dalmatian and Great white pelicans, Glossy ibis, Corn crake, Black-winged pratincole, White-tailed and Sociable lapwings, White-headed duck, Ferruginous pochard, Red-breasted goose, Lesser white-fronted goose, White-tailed and Booted eagles, Great snipe, Red-necked grebe, Great cormorant, Common crane, Little egret, Great bittern, Greater flamingo, Collared pratincole, Pied avocet, Black-winged stilt, Eurasian oystercatcher, Armenian gull, etc.

2.3 Major issues

Land degradation, coastal zone forest flooding due to the efforts of Government to restore the Lake water level, as well as increased pressure on natural resources due to recognized poverty of rural population are major problems for the region. The main drivers for land degradation are well known – not regulated grazing, improper cultivation, inefficient water management and irrigation, deforestation, as well as expansion of infrastructure and mining activities. These result in significant reduction of organic matter and nutrients in the soil, soil impoverishment due to change in chemical and physical characteristics, poor stability, increase in water runoff and so forth.

A decrease of 19.6 m in the level of Lake Sevan has occurred due to the excessive water use. The present level of the lake is 1898 m. The volume of the Lake's water has been reduced from 58.5 billion cu m to 33.0 billion cu m, and the lake's surface area has been reduced from 1416 sq km to 1228.1 sq kilometers. Between 1949 and 1962, the intense water release amounted to a 13 meter reduction (1 m per year) in the lake's level.

Climate change imposes additional impact on land degradation. Natural grasslands and pastures are the main basis for development of livestock production and biodiversity conservation. As it is stated above, according to climate change scenarios, the total surface and yields of pastures in Armenia will reduce and decrease in the yields of grasslands is possible, which, in its turn, will result in lower level of fodder production. It is calculated, that if the current rate of increase in the number of cattle and ruminants remains, based on the modern scientific norms for pasture loads, availability of fodder resources by 2030 will not be a matter of concern. However, since the overall condition of the majority of pastures are obviously inadequate as grazing norms and standards are not followed, and if the corresponding measures are not taken for improving their condition, their degradation will become more intensive. Another important aspect of consideration for the region is vulnerability of water resources. Forecasted scenarios for Lake Sevan in case water abstraction and inflow remain at current level show reduction of the total actual river flow of the basin by 12% in 2030, 26% in 2070 and 41% in 2100. It will result in significant changes not only of the lake ecosystem, but also for climate formation and water balance in the entire region.

It is evident, that impoverished soil structure, overgrazed vegetation and forest degradation continues to diminish carbon storage potential as well. As it has been stated, around 700 ha of coastal zone forest is gone under the water. Considering the risk of intensification of euthrophication processes, there is on-going government programme on removal of water covered trees from the lake, however only 270 ha area is cleaned. Based on the average rate for carbon concentration in timber (0.5t/cub.m), total increase in CO2 emissions2 due to flooding of 9000t can be calculated. It is obvious that despite of euthrophication effect, the methane emissions released from spunk due to decomposition will be much higher. In line with the Government agenda, rehabilitation of forest zone stands for around 500 ha is expected that will ensure carbon sequestration of 7000 t3.

There is no precise data in GHG emission increase due to the degradation of pastures/grasslands conducted in Armenia. However, there is an expert assessment4 according to which a total amount of carbon in soils of Vardenis region is equal to 203 mln of CO2. It is particularly interesting in comparison with total GHG emissions level in Armenia (as per 2000, without LULUCF) stands for 6634,89 Gg CO2 eq, while LULUCF sector - 1563,6 Gg CO2 eq. Moreover, using an IPCC modeling system, considering an option for successful rehabilitation of 2000 ha of severely degraded pastures and regulation of grazing regime within a five year time period, an increase in carbon storage in soil (SOC) of 14,250 t C will be achieved5. Referring to similar approach an increase in carbon storage in vegetation (CVEG) achieved will amount 9,200 t, considering default IPCC value for CVEG 9.2t/ha with 50% increase in three years.

Forest system will also benefit from regulation of pasture, since livestock often uses open areas of relict Juniperous scrub forest for grazing, as well as several pasture roads are crossing over forest areas. Thus additional potential for carbon sequestration due to less degradation of forest is exist.
Once the 60 ha of rehabilitated forest stands reach maturity, the carbon storage in the aboveground tree biomass will reach approximately 1800 t C.

2.4 Project goal and benefits

The aim of the project is to maintain the landscape, ecosystem diversity and integrity in mountainous regions of Armenia through development and promotion of sustainable community resource management practices and biodiversity conservation programmes and demonstrating mitigation of adverse climate conditions on the example of fragile forest and rangelands ecosystems, meantime to ensure the sustained ecosystem services for food and agriculture activities. Two specific objectives are designed: i) to improve institutional and individual capacity for sustaining biodiversity in mountain rangeland and forest ecosystems and increasing rural communities livelihood level in face of climate change; ii) support in development and implementation of activities for increasing the resilience of ecosystems and local communities to future climate change through introduction of sustainable pasture and forest management practices in the selected region.

The project's objective is to demonstrate a natural resource management model in mountainous pastures and forests of Armenia which increases ecosystems' capacity to sequester carbon under pending climate warning risks, while at the same time retain biodiversity and economic values. The project will pilot an innovative pasture management system, including rehabilitation of 2,000 ha of pastures and 60 ha of a forest belt in Vardenis sub-region of Gegharkunik region. The project will help avert further deterioration of natural resources (biodiversity, land, water, forest), promote better understanding of problems related to climate change impact and its socio-economic dimensions such as rural production and food security. An increase in carbon storage in soil (SOC) as a result of the grassland rehabilitation is assessed as 14,250 tC . Referring to similar approach an increase in carbon storage in vegetation (CVEG) achieved will amount 9,200 tC, considering default IPCC value for CVEG 9.2t/ha with 50% increase in three years. Forest system will also

2 Annual net increment coefficient (from 1.86 qm/ha to 2,73qm/ha in Armenia depends on forest type) is not considered.

3 Calculation based for 15 year period of time with consideration of average volume 30qm per hectare.

4 N.Gulzadyan. (2000). Soil characteristics and calculation of carbon amount in soils of Vardenis district. UNDP/GEF/ARM 99/G41/A/1G/99 project materials.

5 Calculation done based on IPCC model (2006): 30% - loss IPCC default (95 t/ha) for degraded conditions for cool temperate - * 0.25 (SOC increase by 25% in five years were grazing pressure is reduced and restoration completed)* 2000 (amount of recovered areas).

benefit from regulation of pastures, since livestock often uses open areas of relict Juniperous scrub forest for grazing, as well as several pasture roads are crossing over forest areas. Thus additional potential for carbon sequestration due to less degradation of forest will be achieved.

In addition this project will contribute to achieving several global environmental benefits. By forwarding conservation of Armenia's biodiversity, the project will be helping to protect part of WWF's "Global 200" and Conservation International's "Caucasus Hotspot". The project will have an impact on protection of habitats global conservation importance, such as low and middle mountain steppe, high mountain subalpine vegetation for numerous endangered and endemic species. The project will contribute to the global effort to combat climate change by enhancing sustainable land management of vulnerable mountainous landscapes and enhancing their carbon sequestration capacities.

3. Project Activities

Activity Arm1: Stocktaking and vulnerability assessment of target area resulting in pasture and forest restoration plans.

Selection of pilot sites and associated communities in the project region will be conducted at the inception phase. It should be ensured that pilots have clearly elaborated criteria according to which the specific project sites will be selected within the Vardenis region. These criteria along others will consider climate change factors as well (e.g. carbon sequestration potential, impacts related to climate change benefits, presence of indicative species, etc.) in order to demonstrate global environmental benefits with consideration of climate change specific outcomes.

The project will implement field inventories of resources at the target region and develop detailed vulnerability profiles for selected rangeland and forest ecosystems. Socio-economic and environmental assessment of the key anthropogenic and climatic drivers of the degradation ecosystems in the selected sites will be developed. Participatory meetings will be organized engaging local communities with the objective of agreeing on roles and responsibilities in the identification of most feasible and environmentally sound rehabilitation and management measures as well as implementation modalities.

Gap analysis of the national /local development strategies and plans in agricultural sector related to conservation of biodiversity and climate change aspect will be conducted. Package of recommendations and amendments for regional/local sectoral policies and programmes in light of consideration of climate change issues will be elaborated and presented to relevant authorities.

In order to forecast, monitor and analyze the carbon dynamics at the targeted grasslands and rehabilitated/established forest areas the project will identify methodologies for GHG assessment and inventory and design a plan for their implementation at the site level. Project will closely cooperate and utilize experience in national GHG inventory development and vulnerability assessment tools of UNDP/GEF supported activities within the frames of the preparation of the Armenian Third National Communication to UNFCCC.

The field studies will proceed with existing documents, plans, inventory and map review. The field studies will include: site visual assessment, soil tests, plant composition assessment, evaluation of productivity and quality, in the context of the feed/fodder demand per user communities (village-level fodder balances), mapping of roads and water sources, forest cover, structure and composition, consultations with forest authorities and scientific institutions.

The technical design plans for the rehabilitation of the 2,000 ha of rangelands will be finalized based on existing pasture management plans and field studies. The planning process would be supported by the technical experts and through participatory consultations in focus group including local pasture users, local and regional authorities and representatives of specialized institutions. The management plan objective would be to define options: (i) to increase quantity and quality of overall fodder production; (ii) reduce pressure on

overgrazed degraded areas; and (iii) regenerate productive capacity to achieve sustainable resource management. Management plans would also define simple monitoring plan and key indicators.

Similar approach will be used for forest rehabilitation and management recommendation development activities aimed at increasing resilience to climate change impacts on the fragile mountainous forests. A detailed forest restoration area will be defined at the project inception phase based on site assessment. It will be designed whether project will focus on forest natural rehabilitation activities in degraded areas, or establishing of new forest areas at community lands.

Training programmes will be developed and conducted on sustainable grassland and community forest management for local population communities, with involvement of national park staff, agricultural extension services and regional authorities.

Activity Arm2: Implementation of the restoration projects.

Once the technical design plans for forest and grassland rehabilitation are finalized, they will be implemented in practice. Forest restoration will envisage assisted regeneration at 60 ha of degraded forest areas or planting of new forests (with native species) in community areas in order to increase forest cover and resilience to threats. Possibility for support on establishing nursery (for native species) in targeted region will be assessed and explored at the inception phase of the project.

Rehabilitation of pastures will follow largely the model of alternative pastures.

In the action for landscape restoration: 1) representatives of "Hayantar" SNCO[6], national park (if relevant), agro services and local authorities of surrounding communities will participate as consulting bodies, 2) communities will be beneficiaries of the action results and main partners for grassroots actions of reforestation/landscape restoration, 3) experts on reforestation will plan, guide implementation and monitor the action.

Activity Arm.3 Carbon Assessment.

A robust GHG monitoring system will be established. Carbon data will be reported before, during and after the project. The systematic collection of relevant climate-related data will help to identify how communities of grassland species will be affected by climate change i.e., what physical and biological changes could take place as a result of changes in temperature, precipitation and aggravation of situation with extreme climate events. This observation and forecasting system will provide the foundation for planning appropriate response measures and integrating them into ongoing pasture management efforts.

The results of the project will be widely publicized in the country and in international peer-review journals. Training and sharing of experiences with community members from other regions/ sub-regions in Armenia to develop their capacities to integrate climate change issues into landscape rehabilitation and management activities will be conducted to create a basis for further replication.

Timetable with sequence of activities for achieving outputs and indicators is presented in Annex 1 .

3.1 Project Results and Resources Framework

Project Objective: The project's objective is to demonstrate a natural resource management model in mountainous pastures and forests of Armenia which increases ecosystems' capacity to sequester carbon under pending climate warning risks, while at the same time retain biodiversity and economic values.

6 "Hayantar" State-non commercial organization is a national designated authority for forest management under the Ministry of Agriculture

Project Components	Expected Outcomes	Expected Outputs	Verifiable Indicators	Funds
1. The capacity and knowledge of national authorities and local communities on sustainable use and management of mountain rangeland and forest ecosystems in face of climate change aimed at preservation of ecosystem services for maintenance of rural communities livelihood	1.1. The rural communities have clear understanding of current threats and mitigation measures for sustainable rangeland management.	The main negative drivers are identified and assessed through field inventories of resources and development of detailed socio-economic and environmental vulnerability profiles for selected rangeland and forest ecosystems.	- Vulnerability profiles for selected communities are developed - Number of training conducted for local decision makers and community members to increase knowledge on CC threats and mitigation practices - At least in three communities Climate change risks are incorporated into multi-year community development plans	$221,000
	1.2. The institutional role and responsibilities are clarified for planning and implementation of rangeland and mountainous forest ecosystems rehabilitation and management	The institutional needs and gaps are identified through surveys, expert assessments and participatory meetings. The outcomes of the assessment validated through participatory meetings in selected communities.	- Institutional needs assessment reports elaborated and recommendations provided to decision makers at national and regional levels; - Number of conducted information dissemination campaigns and round tables at national, regional and local levels	
	1.3Capacities of national and local authorities in incorporating biodiversity conservation and climate change mitigation issues into sectoral development plans increased	The gap analysis of the national /local development strategies and plans in agricultural sector Package of recommendations and amendments for national/local policies and programmes in light of consideration of climate change issues is developed. Training modules developed and trainings for decision makers at national level and local levels conducted	- Gap analysis in development strategies and action programmes in agriculture sector related to conservation of biodiversity and climate change aspects is conducted; - New set of policies and standards on sustainable pasture management approved at the local level (by local authorities in the target districts) - Capacities of national and regional authorities in understanding CC issues and their integration into national and regional development strategies are assessed and recommendations provided; - Number of trainings for national and local authorities conducted	
2. Support in development and	2.1. Pasture lands rehabilitated and carbon	Pastureland use plans, including monitoring	- Sustainable Pasture management plans are	$660,100

implementation of demonstration projects on rehabilitation and management of rangelands and mountainous forests aimed at adaptation to the climate change and increase the carbon stock	stock retained and enhanced 2.2Increased quality of fodder production at target sites resulting in higher productivity and higher income from cattle products for local population 2.3Grazing pressure on degraded areas reduced 2.2. Mountain forest ecosystems are rehabilitated,	scheme are developed through participatory consultations and are implemented. Support to natural regeneration in degraded forest areas and forest planting with native species in degraded and deforested areas implemented Rehabilitation of rangelands are implemented through participatory schemes with rural communities and specialized agencies	developed and approved by community councils; - Forest rehabilitation and management plans in selected communities designed; - 60 ha of degraded forest restored - 2000ha of pastures are rehabilitated - Number of community people involved into pilot activities	
3. Carbon assessment	National framework for carbon stock inventory and monitoring established and piloted	Methodology adopted for assessment on carbon stocks in project area and applied for project impact evaluation Carbon accounting system put in place and implemented Publication of results	- Methodology for carbon monitoring developed and introduced; - Recommendations for establishing national carbon monitoring system provided; - Replication strategy developed and results of the best practices and approaches are widely disseminated within the country	239,350
Project Management, Monitoring and Evaluation			-Project team formulated and in operation - Project progress reports periodically developed and incorporated into e-system - Mid-term and Final evaluations conducted and report produced, annual EC required reporting ensured - Annual outcome board meetings conducted	278,250
Total				$1,398,700

4. Coordination with other projects

The project will directly collaborate with major on-going national and regional initiatives, with more focus on activities conducted by WB in Armenia, UNDP, as well as EU funded REC Caucasus and WWF Caucasus. Project will utilize experience and lesson of conduced activities, utilize data on methodology for vulnerability assessment, assessment of ecosystem carbon sequestration potential, as well as consider practices for pasture management planning developed in other regions. Please see the table below with major related project for more details.

Organization	Project	Objectives

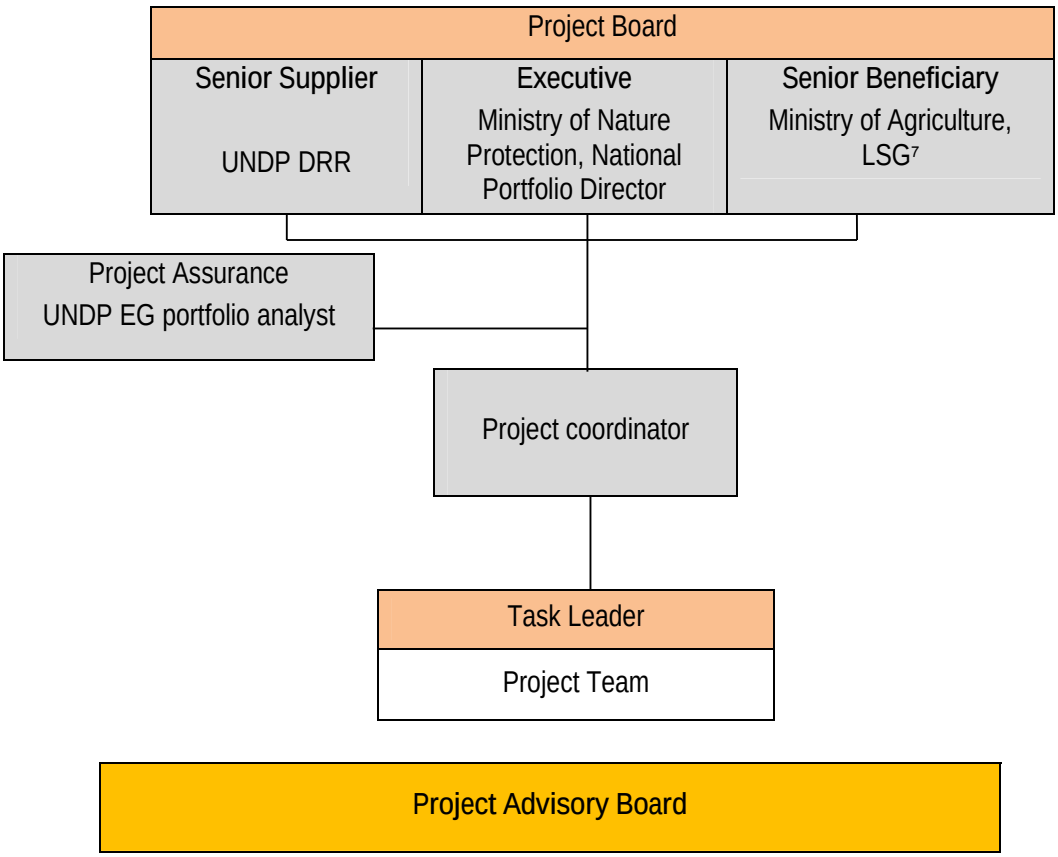
World Bank	Community agricultural resource management and competitiveness project	The project development objective is to improve productivity and sustainability of pasture/livestock livelihood systems in selected communities. This would be evidenced by: (i) increased livestock productivity as measured by milk productivity and increase in daily animal weight gain; (ii) increased efficiency of communal pasture management, as measured by increased communal budgetary revenues from lease of pastures; (iii) increased farm sales from livestock; and (iv) increased Pasture Management Effectiveness.
UNDP-GEF	Enabling activities for the preparation of Armenia's Third National Communication to the UNFCCC	The project aims to respond to the objectives of the UN Framework Convention on Climate Change (UNFCCC) in accordance with its commitments as a Party to the Convention mandated by Articles 4 and 12 of the UNFCCC and subsequent COP decisions. The Third National Communication of Armenia to the UNFCCC will be prepared under the project. It will consist of updated information on: i) national circumstances; ii) national greenhouse gas inventory; iii) assessment of vulnerability to climate change and steps taken to adapt to climate change; iv) policies and measures undertaken to mitigate climate change; v) capacity building to develop, transfer, assess environmentally sound technologies and know-how, modalities to absorb them and host projects; vi) public awareness, education, training, research and systematic observation.
WWF Caucasus (EU funded)	Increasing the Resilience of Forest Ecosystems against Climate Change in the Southern Caucasus through Forest Transformation	Overall objective of the proposed action is to increase the resilience or forest ecosystems in the Southern Caucasus against climate change impacts and to improve biodiversity and livelihoods of local populations. The specific objective of the proposed action contributes to the overall objective by establishing the necessary conditions for the forest administrations in the target countries to develop and implement strategies for transforming monoculture forest stands into highly resilient, "close to nature" forest stands.
World Bank, IUCN, WWF (EU funded).	Improving Forest Law Enforcement and Governance in the European Neighborhood Policy East Countries and Russia (ENPI FLEG)	The Program is based on three pillars: (i) Helping advance institutional and legal reforms; (ii) Building public awareness and support for forest law enforcement and governance; (iii) Promoting private sector inclusion in FLEG processes. As such the Program initiates a set of studies that will help people better understand the causes of illegal logging and will provide sound policy advice to the government. Moreover, the Program involving the private sector in the FLEG process to help analyze and introduce markets for alternative forest products; include a major advocacy component to update on the current knowledge on forest governance, corruption and illegal logging; and communicate the FLEG process to a broader public.
REC Caucasus (EU funded)	Identification and implementation of adaptation response to Climate Change impact for Conservation and Sustainable use of agro-biodiversity in arid and semi-arid ecosystems of South Caucasus	Overall objective of the project is to build adaptive capacities in the South Caucasus countries to ensure resilience of agro-biodiversity of especially vulnerable arid and semi-arid ecosystems and local livelihoods to climate change. The project has the regional scope and will address policy and institutional issues in the South Caucasus countries as well as pilot the activities in selected rural communities located in arid and semi-arid geographical areas to promote community based sustainable practices for agro-biodiversity use and

		conservation to reduce risk of climate change negative impact that benefit both the rural population and the environment.
KfW	Trans-boundary Joint Secretariat for the Southern Caucasus	Conservation project, creating platform for biodiversity protection in Armenia. Developing national guidelines on PA management planning, awareness raising, information exchange and others.

There are other organizations active in the sector will be in the list of stakeholders as well (FAO, GIZ, USDA-CARD, IFAD, etc.).

5. Implementation arrangements

The project will be implemented through national execution modality (NIM) – with the government represented by the Ministry of Nature Protection and the Ministry of Agriculture as national implementing partner and hereby as senior beneficiary of the project. The Project Board will be formulated as the group responsible for making consensus based decisions. This group will be consulted by the Project Coordinator for decisions when Project Management tolerances (i.e. constraints normally in terms of time and budget) have been exceeded. This group has executive role representing the project ownership (Ministry of nature protection); supplier role to provide guidance regarding the technical feasibility of the project (UNDP Armenia) and to ensure the realization of project benefits from the perspective of project beneficiaries (Ministry of Agriculture, Local-self Government). Local Programme Advisory Committee (LPAC) is the forum to review approves composition of the Project Board. The Government Cooperating Agency and UNDP must always be present in the project board (overall project management structure is presented below).



7 Representatives of Local Self-Government Authorities (LSG) will be included in the Board after identification and final selection of pilot communities at the inception phase of the project

The Project Assurance will support Project Board by carrying out objective and independent project oversight and monitoring functions, which are mandatory for all projects and has to be independent of the Project Manager. A UNDP Programme officer will hold the Project assurance role and ensures appropriate project management milestones are managed and completed.

The UNDP CO will support project implementation activities in accordance with UNDP rules and procedures and in line with EU requirements. The UNDP CO will insure project accountability, transparency, effectiveness and efficiency. UNDP will be responsible for and provide the Implementing Partners with the following execution and implementation services in accordance with corporate rules and procedures, such as: project supervision, monitoring and evaluation; Financial oversight and management; procurement of goods and services, including approval of expenditures; procurement of work and services, including selection and contracting of project consultants and sub-contractors; and, assistance with public advocacy, communication with national partners and coordination of co-funding activity. UNDP will appoint project coordinator to cover above mentioned tasks. Technical task leader will be recruited to support project coordinator with the authority to run the project operational activities on a day-to-day basis. The project task leader's prime responsibility is to ensure that the project produces the results specified in the project document, to the required standard of quality and within the specified constraints of time and cost. Project team of national and international consultants will support coordinator and the task leader in implementing project activities.

As the main requirement for successful implementation of the project is sustained political commitment and broad-based public support. Thus the involvement of other national authorities will be necessary. For this purpose multi-stakeholder Project advisory board will be established as an advisory body to provide general advice for project implementation policy ensuring the project's consistency with the other ongoing development processes in the country. Representatives from line ministries, regional administration, scientific institutions, NGOs and related international organizations will be invited for membership. Advisory board will be co-chaired by Implementing partner and UNDP CO representative.

The Ministry of Nature Protection and the Ministry of Agriculture will undertake the most crucial role in the implementation of the project. The Ministry of Nature Protection, as a government designated authority responsible for Climate change related environmental policy and management, will serve as National Implementing Partner together with the Ministry of Agriculture (responsible for agriculture policy and forestry) and Local-self Government Authorities with the role of main beneficiary for the project and will be responsible for: (i) direct overseeing project implementation, (ii) attainment of the planned project Activities/Outputs as per the Project Results and Resources Framework.

The Project will actively work with regional and local authorities of Gegharkuniq marz. Local NGOs and CBOs, as well as relevant scientific institutions will be invited for cooperation at different stages of implementation. Other interest groups will be invited regularly at the seminars, workshops and conferences as well as on targeted trainings for capacity building.

6. Risks

Risk description	Impact Level	Response
Local communities do not prioritize benefits of sustainable use of natural resources or have insufficient interest to participate in project activities.	Medium	Transparent procedures to select and reach target population should be conducted. Training will be provided to local institutions and populations, as well as NGOs involved in provision of services. Scheme to ensure that the local communities are allowed to retain the benefits for project implementation to be developed.
Productivity increases may take longer than the project duration, thus impacting on the expected motivation of local communities', in	Medium	Project financing would introduce and support a bottom-up approach, allowing livestock herders to acknowledge the objective of the activities, and

particular access restrictions to areas for regeneration		enabling communities to manage their resources through enhanced capacities and mechanisms for decision making about common resource management framework. The pasture management recommendations will be complemented with on ground measures in the framework of demo projects with involvement of local workforce.
National economic development stalls, and poverty strengthens in the project areas, thereby increasing pressure on natural resources	Low	There is a realistic possibility that this may happen, however, by focusing project activities at the site level, and working with the communities the project should ensure that the local economy develops adequately at the project sites, and thus the overall stagnation impact will be mitigated.
National policy does not quickly adopt the lessons learnt from the demonstrations at the sites.	Medium	The project will use all possible mechanisms to ensure lessons learnt are transferred to national level. Where necessary, the project will complement existing mechanisms by developing its own bottom-up transfer mechanisms – e.g. local working groups, seminars, or lobbying on specific issues.
No access to new technologies and best practices for the local population	Low	The project will develop education modules and training packages, as well as use knowledge materials existing in the extension services

7. Monitoring and reporting framework

In accordance with the programming policies and procedures outlined in the UNDP User Guide and EC principles, the project will be monitored through the following within the annual cycle:

- *Progress made shall be monitored in the UNDP Enhanced Results Based Management Platform (ERBM)*
- *On a quarterly basis, a quality assessment shall record progress towards the completion of key results, based on quality criteria and methods captured in the Quality Log since the beginning of the project; short quarterly update on project progress will be recorded in ERBM target status section.*
- *An Issue Log shall be activated in Atlas and updated by the Project Manager to facilitate tracking and resolution of potential problems or requests for change;*
- *Based on the initial risk matrix submitted (see chapter 6), a risk log shall be activated in Atlas and regularly updated by reviewing the external environment that may affect the project implementation;*
- *A project Lesson-learned log shall be activated and regularly updated to ensure on-going learning and adaptation within the organization, and to facilitate the preparation and dissemination of the Lessons-learned at the end of the project;*
- *A Monitoring Schedule Plan shall be activated in Atlas and updated to track key management actions/events.*

Annual Project Review and Report.

An annual project review shall be conducted during the fourth quarter of the calendar year or soon after, to assess the performance of the project and appraise the Annual Work Plan (AWP) for the following year. In the last year, this review will be a final assessment. This review is driven by the Project Board and may involve other stakeholders as required. It shall focus on the extent to which progress is being made towards outputs, and that these remain aligned to appropriate outcomes. An Annual Review Report shall be prepared by the Project Manager and shared with the Project Board and the Outcome Board and Regional Coordination Unit in Bratislava *no later than one month after end of calendar year*. The APR, that will cover the calendar year, includes, but is not limited to, reporting on the following:

Section 1. Brief summary and context of the EC project in the country;
Section 2a. Progress and achievements made toward project objective and project outcomes - each with indicators, baseline data and end-of-project targets (cumulative);
Section 2b. Project outputs delivered per project outcome (annual);
Section 2c. Activities carried out during the reporting period under each output;
Section 3a. Lesson learned/good practice;
Section 3b. Difficulties encountered and measures taken to overcome problems;
Section 4. Expenditure reports (Note: Financial reports shall be submitted in US dollars);
Section 5a. Risk and adaptive management;
Section 5b. Changes introduced to activities, outputs or indicators;
Section 6. Future work plan - Work plan for the following 12 months (calendar year), including forecasted progress in the achievement objective(s) and indicators, as well as financial plan (Atlas format budget for next 12 months in USD).

To cover direct costs for the project staff who, while working for this project at the same time are working for other project(s) managed by the CO, only a part of their time devoted to this project will be reclaimed. This will be confirmed by timesheets for use of EC in case of verification.

Project Inception Phase

A Project Inception Workshop will be conducted with the full project team, relevant government counterparts, implementing partners, the UNDP-CO and representation from the donor side. A fundamental objective of this Inception Workshop will be to assist the project team to understand and take ownership of the project's goals and objectives, as well as finalize preparation of the project's first annual work plan.

Additionally, the purpose of the Inception Workshop (IW) will be to: (i) introduce project staff; (ii) detail the roles, support services and complementary responsibilities of UNDP-CO vis à vis the project team; (iii) provide a detailed overview of reporting and M&E requirements. Equally, the IW will provide an opportunity to inform the project team on UNDP project related budgetary planning, budget reviews, and mandatory budget re-phasing. The inception workshop will be prepared and assisted by UNDP Regional Technical Advisor for natural resources (Bratislava). The IW will also provide an opportunity for all parties to understand their roles, functions, and responsibilities within the project's decision-making structures, including reporting and communication lines, and conflict resolution mechanisms.

Mid-term of project cycle

The project will undergo an independent Mid-Term Evaluation at the mid-point of project implementation. The Mid-Term Evaluation will determine progress being made toward the achievement of outcomes and will identify course correction if needed. It will focus on the effectiveness, efficiency, and timeliness of project implementation; will highlight issues requiring decisions and actions; and will present initial lessons learned about project design, implementation, and management. Findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the project's term. The Terms of Reference for this Mid-term evaluation will be prepared by the UNDP CO based on guidance from the Regional Coordinating Unit EC. The management response and the evaluation will be uploaded to UNDP corporate systems, in particular the UNDP Evaluation Office Evaluation Resource Center (ERC).

End of Project

An independent Final Evaluation will take place three months prior to the final Project Board meeting in accordance with UNDP and EC guidance. The final evaluation will focus on the delivery of the project's results as initially planned (and as corrected after the mid-term evaluation, if any such correction took place). The final evaluation will look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental benefits/goals. The Terms of Reference for this

evaluation will be prepared by the UNDP CO based on guidance from the Regional Coordinating Unit in Bratislava. The Terminal Evaluation should also provide recommendations for follow-up activities and will require a management response, which should be uploaded to PIMS and to the UNDP Evaluation Office Evaluation Resource Center (ERC).

- During the last three months, the project team will prepare the Project Terminal Report. This comprehensive report will summarize the results achieved (objectives, outcomes, outputs), lessons learned, problems encountered and areas where results may not have been achieved. It will also lay out recommendations for any further steps that may need to be taken to ensure sustainability and replicability of the project's results, and information on the measures taken to make the European Union visible as the source of financing, as well as details on the transfers of assets and full summary of the project's income and expenditure and payments received, in line with article 2.5 of the AnnexII (General Conditions). Final report will be submitted no later than 3 months after closure of the project.

7.1 Learning and knowledge sharing

Results from the project will be disseminated within and beyond the project intervention zone through existing information sharing networks and forums. The project will identify and participate, as relevant and appropriate, in scientific, policy-based, and/or any other networks, which may be of benefit to project implementation though lessons learned. The project will identify, analyze, and share lessons learned that might be beneficial in the design and implementation of similar future projects. Finally, there will be a two-way flow of information between this project and other projects of a similar focus.

7.2 Ownership/use of results and equipment

Ownership, title and industrial and intellectual property rights in the results of the project and the reports and other documents relating to it shall vest in the UNDP, as the case may be together with third parties or as may otherwise be agreed by UNDP.

Any purchased equipment, vehicles and supplies paid for by the European Union funding shall be transferred to local authorities or local partners (excluding commercial contractors) of UNDP or the final beneficiaries of the project results at the latest when submitting the final report. The documentary proof of those transfers shall be kept for verification along with the documents mentioned in Article 16.3 of EU General Conditions.

7.3 Audit

The Audit will be conducted in line with UNDP rules for auditing and will be performed by the legally recognized independent auditor, selected in accordance with UNDP rules and procedures, or if and when requested by EC.

8. Replication

Comprehensive analysis of policy frameworks will create necessary information basis to be used for further research and analysis at the regional and national levels. Identified and selected ecosystem rehabilitation models can be easily used in other regions of Armenia. Methodology used for GHG emission calculation in the framework of this action will be described and, among others, included in the package of documents presented to governments in the end of the project as one of basic methods for further replication of pilot experience generated within the project. Practical results of successful implementation of pilot adaptation measures in local communities will serve as a baseline and stimulate interest of other communities of the region in developing and implementing such activities.

Full range of information dissemination campaigns will be conducted, such as through distribution of knowledge material and reports, national conferences, media events, electronic networking, etc. Provision of updated and reliable information to national and local authorities will be arranged, transfer or recommendations to state entities and local self-governance authorities for further decision making conducted.

The project team itself also will participate in relevant scientific, policy-based and other networks that can benefit project implementation via lessons learned and will share its own lessons with other similar projects

9. Sustainability

The project will create conditions for land use that address the sustainability of proposed interventions at the watershed and household levels; in particular, institutional stability, financial sustainability, and a high level of ownership.

Institutional stability is being promoted by consensus-building on the project design among a wide range of stakeholders and by adopting a participatory process throughout developing community pasture management plans. The advocacy work to be carried out under the project will increase the exposure of national policy and decision makers to climate change mitigation issues. Most of the implementing institutions are at the local level, and therefore strong participation and better coordination among the Ministries responsible for natural resources planning and management and their local departments and district branches are critical for sustainability of project investments.

Financial sustainability is to be pursued by a selection of investments and activities that will generate income streams over time. Although mitigation is a long-term process, and the activities initiated under the proposed project will require sustained efforts and resources, the key is to build institutional capacity for adaptive planning, to put in place systems and networks of information that can be used to improve development outcomes under conditions of climate risk and to build experience among communities for such micro-investments.

High level of ownership of the planning and implementation process by project beneficiaries is critical for the project success. Early involvement of key stakeholders (i.e. village communities, farmers, NGOs, local authorities) in decision making and later during implementation will increase the chances of sustainability. The project will promote equity among community members as most households will gain access to project investments, will change incentives, behaviors and motivations for behavior, thereby demonstrating to stakeholders that sustaining the project approach is in their own interest.

10. Communication, visibility and transparency

For activities funded by EC, UNDP will take all appropriate measures to publicise the fact that the activities have been receiving funding from the European Union. Information given to the press, the beneficiaries of the project, all related publicity material, official notices, reports and publications, will acknowledge that the project was carried out "with funding by the European Union" and will display in an appropriate way the European logo (twelve yellow stars on a blue background). In cases where equipment or vehicles and major supplies have been purchased using funds provided by the European Union, UNDP will include appropriate acknowledgement on such vehicles, equipment and major supplies (including display of the European logo (twelve yellow stars on a blue background) provided that such actions do not jeopardize UNDP privileges and immunities and the safety and security of the UNDP staff. The size and prominence of the acknowledgement and European Union logo will be clearly visible in a manner that will not create any confusion regarding the identification of the project as an activity of UNDP, the ownership of the equipment and supplies by UNDP, and the application to the project of UNDP privileges and immunities.

All publications of UNDP pertaining to the EC-funded project Action, in whatever form and whatever medium, including the internet, shall carry the following or a similar disclaimer: "This document has been produced with the financial assistance of the European Union. The views expressed herein can in no way be taken to reflect the official opinion of the European Union." Publicity pertaining to European Union contributions may quote these contributions in Euro (€ or EUR), in parenthesis if necessary.

Project communication strategy will ensure that all project staff and stakeholders will maintain a high level of transparency and openness throughout the project implementation.

With the aim to ensure coherence and coordination between related projects and activities under UNDP-EC Agreement – Clima East part II, the project will keep informed stakeholders on relevant to the Agreement developments and progress, inform about upcoming relevant meetings and exchange related documents, press releases, publications when these are issued, provide meeting and mission reports and share necessary links to project websites. Information will be channeled through UNDP Regional Centre to European Commission. EC will provide to UNDP information on EU policy developments, partnerships and cooperation agreements in such a way that the project outcomes are policy relevant and able to contribute to these demands.

11. Legal Context

This document together with the CPAP signed by the Government and UNDP which is incorporated by reference constitute together a Project Document as referred to in the SBAA and all CPAP provisions apply to this document.
Consistent with the Article III of the Standard Basic Assistance Agreement, the responsibility for the safety and security of the implementing partner and its personnel and property, and of UNDP's property in the implementing partner's custody, rests with the implementing partner.

The implementing partner shall:
put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;
assume all risks and liabilities related to the implementing partner's security, and the full implementation of the security plan.

UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of this agreement. The implementing partner agrees to undertake all reasonable efforts to ensure that none of the UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via *http://www.un.org/Docs/sc/committees/1267/1267ListEng.htm.* This provision must be included in all sub-contracts or sub-agreements entered into under this Project Document".

ANNEX 1

IMPLEMENTATION TIMETABLE

Outputs and indicators	Timetable for achieving outputs and indicators	Sequence of activities
Output 1: Stocktaking and vulnerability assessment of target area resulting in pasture and forest restoration plans. Baseline: The rural communities and forest authorities have limited understanding of current threats and mitigation measures for sustainable rangeland and forest management. Target: 1. The main negative drivers for selected rangeland and forest ecosystem are identified and assessed Indicator 1: Number of community development plans incorporating CC risk. Indicator2: Number of decision makers and community members with increased capacity and knowledge on sustainable use of mountain rangeland and forest ecosystems in face of climate change	Year 2013 -Pilot sites selection criteria developed and communities selected; -Vulnerability profiles for selected communities are developed; -Number of conducted information dissemination campaigns and round tables at national, regional and local levels; -Gap analysis report developed and recommendations provided. Year 2014 - Draft pasture and forest rehabilitation plans are developed and approved; - Number of trainings conducted for local decision makers and community members to increase knowledge on CC threats and mitigation practices; - At least in three communities Climate change risks are incorporated into multi-year community development plans. Year 2015 - New set of policies and standards on sustainable pasture management approved at the local level (by local authorities in the target districts)	1.1 Conducting pilot sites selection 1.2 Conducting of field inventories of resources and development of detailed vulnerability profiles for selected rangeland and forest ecosystems; 1.3.Conducting socio-economic and environmental assessment ; 1.4. Conducting of participatory meetings in selected communities for assessment of level of awareness, capacities and needs; 1.5. Conducting of gap analysis of the national /local development strategies and plans in agricultural sector related to conservation of biodiversity and climate change aspect; 1.6 Development of the package of recommendations and amendments for national/local policies and programmes in light of consideration of climate change issues; 1.7. Outline of technical design for forest and pasture rehabilitation plans; 1.8 Development of educational modules and implementation of trainings for decision makers at national and local levels on sustainable grassland and forest management
Output 2: Forest and pasture restoration projects implemented Baseline: There is no demonstration projects in Armenia targeted to rehabilitation of mountain rangeland and forest ecosystems aimed at increase of the carbon stock Target: 1.Mountain pasture lands and degraded forest ecosystems are rehabilitated and carbon stock retained and enhanced Indicator1: Number of hectares of pasture land restored and	Year 2014 - Pastureland use plans, including monitoring scheme are developed through participatory consultations and implemented Year 2014 - 2000 ha of degraded pastures restoration initiated; - Support to natural regeneration and forest planting in degraded and deforested areas (60 ha) implemented Year 2015 - Restoration of pasture areas completed and properly maintained; - 60 ha of newly rehabilitated/planted forests maintained;	2.1 Sustainable pasture management plans are finalised and approved by community councils; 2.2 Forest rehabilitation and management plans in selected areas finalised; 2.3 Organisation of study tour; 2.4 Implementation of pilot mitigation activities through forest rehabilitation; 2.5.Implementation of pasture rehabilitation activities; 2.6 Organisation of trainings for local population and replication campaigns;

degraded forest rehabilitated. Indicator 2: Percentage of increased carbon storage potential in pilot rehabilitated areas.	Year 2016 - Replication campaigns in at least 20 other communities conducted	
Output 3: Established carbon assessment and monitoring system in place Baseline: There is no practices for carbon stock inventory and monitoring in degraded mountain pastures and forest ecosystems exist Target 1: National framework for carbon stock inventory and monitoring established and piloted Indicator1: Methodology for carbon accounting put in place and implemented in pilot areas Indicator2: Carbon monitoring programme designed and approved by national authorities Indicator 3: Number of information dissemination campaigns conducted	Year 2013 - List of indicators on carbon storage and sequestration potential is elaborated - Methodology for carbon stock assessment designed - Practical survey on baseline identification conducted Year 2014 - Needs assessment report for setup carbon monitoring system developed; -Methodology for carbon accounting and monitoring introduced; Year 2015/2016 - Monitoring survey of the pasture and afforested lands after restoration completed; - Replication strategy developed and results of the best practices and approaches are widely disseminated within the country; -At least 6 national workshops and 25 public campaigns at local levels organized and publications developed and disseminated at the national, regional and local levels.	3.1 Development of methodology for carbon stock assessment; 3.2 Piloting practical survey for carbon potential of the pasture and degraded forest lands and post project monitoring; 3.3 Identification of legal and institutional gaps and barriers for introduction of carbon monitoring system and conducting national capacity needs assessment; 3.4 Provision of recommendations for establishing national carbon monitoring system; 3.5 Fostering awareness and replication of project experience (stakeholder workshops and public hearings at national and local levels, publication and dissemination of materials in targeted and other regions of the country).