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United Nations Development Programme

Country: Georgia

Project Document

Project Title: Sustainable management of pastures in Georgia to demonstrate climate change mitigation and adaptation benefits and dividends for local communities

UNDAF Outcome(s): 3.4. Underlying disaster risk factors are reduced, focusing on sustainable environmental and natural resource management

Expected UNDP Country Programme Outcome(s): 3.2. Underlying disaster risk factors are reduced, focusing on sustainable environmental and natural resource management.

Expected Country Programme Output(s): 3.2.1. Sustainable practices and instruments for the management of chemicals and natural resources, including land, water and biological resources demonstrated at pilot areas and up scaled at national and/or trans-boundary levels.

Implementing Partner/Responsible Parties: Ministry of Environment Protection of Georgia / Agency of Protected Areas

Brief Description: The Project objective is to rehabilitate 4,064 ha of degraded pastures in Vashlovani Protected Areas, introduce methods for migratory route rehabilitation applied in a 300 ha area and introduce/implement sustainable pasture management practices in the area among the farmers/sheep-breeders in the Dedoplistskaro region. This is to be achieved through activities conducted in pastures at different levels of degradation within and surrounding the Vashlovani PAs, which include: i) rehabilitation of pastures, ii) introduction of sustainable land management practices, iii) improved sustainable livelihood of farmers.

Programme Period: 2012-2016
Key Result Area (Strategic Plan): Energy and Environment for Sustainable Development
Atlas Award ID: 00073514
Project ID: 00084937
Start date: 20 January 2013
End Date: 31 December 2016
PAC/PEB Meeting Date:
Management Arrangements: Direct Implementation (DIM)

Total budget required: USD 1,325,600
Allocated Resources:
• EU USD 1,298,700
• UNDP TRAC USD 26,900
Unfunded Budget: N/A

AGREED BY UNDP:

Mr. Niels Scott
Resident Representative

Signature  Date: 30.11.14

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I. SITUATION ANALYSIS

This country project is part of a larger Action Fiche approved by UNDP and the European Commission (EC) in the framework of Contribution Agreement ENPI/2012/303-093 for the multi-country Action called Clima East pilot projects on ecosystem-based approaches to climate change.

The Caucasus region and especially its mountain ranges with their predominating grasslands are very rich in species. Many of them are endemic to the region. Overgrazing is one of the primary contributing factors to pasture ecosystem degradation in all three countries (Armenia, Azerbaijan and Georgia). Over-grazing results in: (i) loss of organic carbon soil through wind and water erosion; and (ii) soil impoverishment (change in physical and chemical aspects, e.g.: greater compaction, less macro-porosity, decreased nutrient levels and organic matter. These factors interact. Increased soil loss from water erosion results in less water infiltration into the soil for plants; less water for plants lowers productivity; loss of organic matter into the system potentially reduces soil aggregate stability; which increases the likelihood of greater water runoff associated with decreased pore space, poor aggregate stability and so on.

Climate change is the overarching factor exacerbating the human-caused degradation of pastures in the Greater Caucasus. Climate change will impact and is thought to already be impacting the composition, extent and distribution of pastures in the Greater Caucasus¹. Temperature data from Azerbaijan's National Hydrometeorology Department of MENR for 10-year period 1991-2000 showed that the mean temperature has risen by 0.41°C or three times higher than that of the 30-year period 1961-1990. This finding was consistent with the results derived from climate modeling². The highest rise will be observed in the middle and higher mountainous zones of the Great Caucasus. The models also show that rainfall in 2021-2050 will increase by 10-20% compared to the period 1961-1990. The prediction is that despite the fact that climate change will be quite favorable for summer pastures, their area will not expand, and might even diminish. This will be mainly caused by soil erosion and an increasing use of lands for crops³ as well as increased evaporative demands. Warmer temperatures mean higher rates of evaporation and evapotranspiration.

The factors leading to overgrazing are also associated with lack of new rangeland management technologies, few to no incentives for pastoralists to improve degraded pastures or even to manage their pastures sustainably, and a lack of understanding by pastoralists of multiple-resource values of pastures. Pasture management practices have deteriorated over the years and are unable to meet the new challenges that require improved management. There is a need for demonstration of improved pasture management under pending climate threats, for applying state-of-the-art range ecology and rangeland management techniques that reduce emissions of carbon, incentives for farmers for controlling animal numbers for better soil conditions and biodiversity.

The project targets the pastures located in the Vashlovani protected areas (VPAs) (total area 35,053.7 ha) and their vicinity. Vashlovani is located in the south-easternmost part of Georgia in the Dedoplistskaro Municipality between the slopes of the Gombori Mountain Range in the north and the Iori plateau in the south. Vashlovani has rich natural, historical and cultural heritage. The Vashlovani Strict Nature Reserve and National Park form a contiguous area, with the Alazani River on its eastern border that is also the state border with Azerbaijan. Two Natural Monuments -- Eagle canyon (Artsiviskheoba) and TakhtiTepha are physically separated from the Strict Nature Reserve and the

¹ UNFCCC, 2010

² UNFCCC, 2010

³ UNFCCC, 2010

National Park. The Alazani flood plain natural monument is attached to the protected territory. For the time being VPAs include:

- Vashlovani strict nature reserve - 10,143 ha;
- Vashlovani national park - 24,610 ha;
- Alazani flood plain natural monument - 204 ha;
- Takhti-Tepha natural monument - 9.7 ha;
- Artsivis Kheoba (Eagle canyon) - 100 ha.

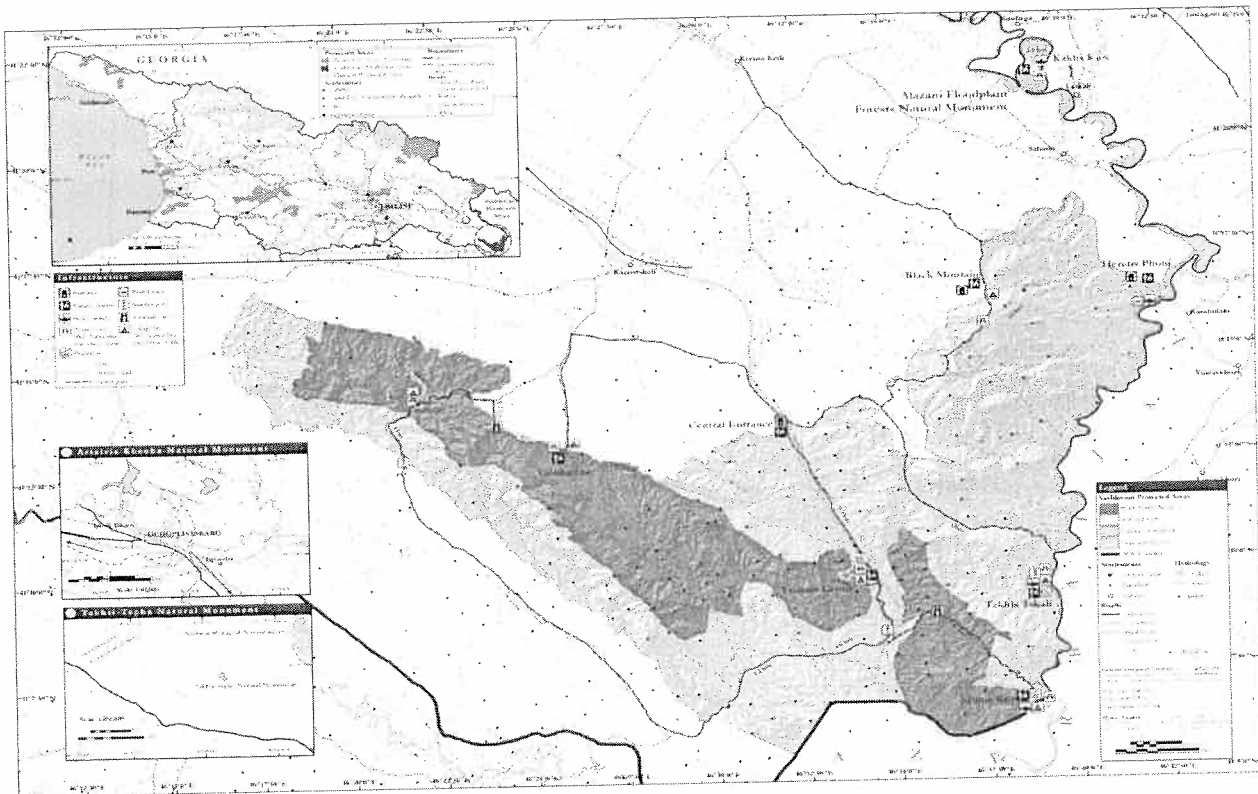


Fig.1. Project site in Georgia.

Within their boundaries there is a wide variety of vegetation formations and ecological landscapes, which provide habitats for a large number of animal and plant, including rare and endangered species, and the genetic ancestors of many cultivated plants. The combination of terrain, the natural processes and human interruption within the protected areas have created a variety of attractive landscapes.

The VPAs form part of the Iori-Mingechaur (Mingechaur) priority conservation area defined in the Ecoregional Conservation Plan for the Caucasus⁴ and harbours many of the conservation area's species (*Panthera pardus tulliana*, *Ursus arctos*, *Gazellas ubgutturosas ubgutturosa*, *Aegypius monachus*, *Aquila heliaca*, *Phalacrocorax pygmeus*, *Pelobates syriacus*) and species of special concern (*Rhinolophus mehelyi*, *Myotis marginatus*, *Lutra lutra*, *Lynx lynx*). The location of the strict nature reserve and national park adjacent to the border with Azerbaijan offers opportunities for transboundary cooperation in support of key species, in particular *Panthera pardus tulliana* and *Gazellas ubgutturosas ubgutturosa*.

⁴WWF (coordinator). 2006. An Ecoregional Plan for the Caucasus. WWF.Tbilisi.

There are 35 species of the Red Book of Georgia distributed on the territory of the protected area. Among rare and threatened species there are found *Emys orbicularis*, *Testudo graeca*, *Aquila chrysaetus fulva*, *Ciconia nigra*, *Tadorna feruginea*, *Neophron percnopterus*, *Haliaeetus albicilla*, *Falco peregrinus*, *Aegypius monachus*, *Tetrax tetrax*, *Rhinolophus mehelyi*, *Ursus arctos*, *Panthera pardus tulliana*, *Gazellas subgutturosa*.

The ecosystem of semi-desert of the VPAs was and still is used for pastures. Furthermore, these pastures are located at the edge of a main road and near residential areas and therefore the ecological condition of the pastures are not satisfactory. The structure of the ground vegetation is destroyed; the population of many rare plants is reduced. The traditional pastures within the borders of what is now the Vashlovani national park are being degraded by excessive grazing by domestic livestock; the dogs used by the shepherds to protect their livestock cause disturbance of large mammals. Cutting of trees for wood and the fires which are intentionally create for "improvement" of the pasture productivity increase even more the negative impact on any possible natural regeneration of the area and its plant species.

The information regarding the types and condition in the pastures within the VPA and adjacent territories are taken from the report prepared by the ACTA Consultants in 2007⁵ and will be referred as the Process Management Framework for Pastures (PMFP) hereafter. The ACTA Consultants report was developed within the Global Environment Facility (GEF) and World Bank Georgia's Protected areas development project. Field research conducted by the ACTA Consultants showed that ecological and phyto-sociological, floristic and living conditions of ground vegetation of the Vashlovani National reserve and the National Park in general (in total) are quite disturbed. It could be said that the vegetation structure on these territories is significantly demolished; different levels of degradation are observed. Moreover, soil surface is being eroded, ecological condition of pastures is critical due to the unsystematic grazing of too many sheep. It is noteworthy that the most recent study of FFI/Nacres (August 2012) confirmed that unsustainable and poor practices for pastures management resulted in different conditions and varying degrees of degradation of pastures.

The territory of VPAs has been used by local people uninterruptedly for centuries for rearing livestock and for taking wild plants, mushrooms and wood. The grassland and semi-desert parts of Vashlovani have been heavily used as pastures. These pastures have by now severely degraded: the structure of the ground vegetation was destroyed in many areas; the population of many rare plants have declined. Many traditional pastures within the borders of what is now the Vashlovani national park have been subject to excessive grazing by domestic livestock.

There is no population permanently residing in the area of VPAs. The majority of the population residing on those territories is the nomadic sheep breeders from Tusheti that use the territories for winter pastures. According to a social assessment conducted within the framework of the ACTA study, the Tushetians are strongly attached and dependent on the environment. Sheep breeding is their traditional occupation and it is considered as the most profitable activity. 60% of the Tusheti population is involved in sheep breeding and this represents their main source of income. Users of the resources of Vashlovani protected areas, both historically and at present, are represented by nomadic Tush shepherds and horse breeders, cattle breeders, local community and other citizens of Georgia (scientists, hunters, fishermen, journalists).

Based on actual data, it could be concluded that if extensive grazing continues, vegetation degradation will continue, quality of pastures and floristic diversity will noticeably lower, scales of

⁵Process Framework Document and Resettlement Plan (Final Report), ACTA Consultants, Georgia Ltd. 2007

erosion will increase and desertification processes will become stronger. Hence, pastures have to be gradually released from the current load and used in a sustainable way.

Vashlovani protected areas are featured on the Emerald sites network. Identification of Emerald sites in Georgia was done through the Project "Development of Emerald Network in Georgia"; EU/CoE/EC; 2009-2011.

II. STRATEGY

The project area is covered by pasturelands at various degrees of degradation (see Table 1 below). UNDP's strategy is to restore these pasturelands to maximize their sustainable use by local farmers and other community members, through the introduction of sustainable land use practices and through the demonstration of alternative livelihoods and use of renewables. The strategy envisages the replicability of the proposed actions. In addition, throughout planning and implementation, special emphasis will be placed on ensuring that the proposed initiatives are sustainable beyond the project lifetime.

The Project objective is to be achieved through activities conducted in pastures at different levels of degradation within and surrounding the Vashlovani PAs.

Table 1: Categorization of pastures located in the Project area

Location of pastures in relation to the Vashlovani PA territory (target group)	Current condition	Planned activities	Objective to be achieved
I. Within the territory of the VPAs (13 farms) 4 064 ha	Degraded and moderately degraded	Rehabilitation of pastures. Introduction of sustainable land use practices.	Sustainable use of improved pastures. Effective use of bio-waste from farms. Sustainable livelihood of farmers.
II. Migratory routes within VPAs used for shepherding along the route between winter to summer pastures and to/from water sources 300 ha area	Degraded	Rehabilitation of migratory routes Introduction of practices for migration to reduce pressures.	Sustainable use of migratory route to reduce degradation. Increase use of renewables for reduction in GHGs. Sustainable livelihood of farmers.
III. Restoration zone	Moderately	Introduction of sustainable	Sustainable use of

(~ 6 winter livestock farms) ~ 1 805 ha (included in 4064 ha of VPA)	degraded	land use practices.	improved pastures.
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Thus, the activities of the Project are focused on three primary activities:

- rehabilitation of pastures and migratory route(s),
- introduction of sustainable land management practices,
- improved sustainable livelihood of farmers.

The implementation of these activities in the pastures targeted in the project will have direct environment impact through increased use of renewables, improved carbon stock, rehabilitated degraded lands and increased biodiversity.

Calculation of carbon mitigation as a result of project activities in the territory

The methodology for calculation of carbon mitigation as a result of this project is described in Annex 1. The summary of the calculation⁶ are as follows:

Change in carbon stocks in the project territory	Annual	Total storage for 20 yrs
In severely degraded pastures in the Vashlovani PA	2,275 tonnes C yr ⁻¹	51,505 tonnes C
In moderately degraded pastures in the Vashlovani PA	1,128 tonnes C yr ⁻¹	22,563 tonnes C
In migratory routes	342	6,840
Total storage as a result of full project implementation		80,908 tonnes C
Equivalent in GHG emission reductions		296,662 t CO₂

There will also be direct and specific socio-economic value generated through the project for three types of land users in the region of Dedoplistskaro: stationary farms within the traditional use zone of the protected areas, nomadic sheepbreeders who are using the migratory routes and seasonal livestock farms which are currently located within the restoration zone).

The strategy is in line with CPAP⁷ 2011-2015 outcome 3.2 'Underlying disaster risk factors are reduced, focusing on sustainable environmental and natural resource management' and its expected output

⁶ These calculations are made on the basis of data on degraded pastures in VPA from ACTA consultants report, 2007. These figures will be calculated during 2014, once updated information is available on degraded areas and the specific carbon methodology is applied.

⁷ Country Programme Action Plan, 2011-2015, signed by UNDP and Government of Georgia

3.2.1. 'Sustainable practices and instruments for the management of natural resources, including land, water and biological resources demonstrated at pilot areas and up scaled at national and trans boundary levels'.

Project Goal and Objectives

The overall goal of this project is the rehabilitation of pasturelands and the introduction of sustainable grazing practices in Georgia. The project will achieve this through various activities conducted to rehabilitate the pastures that are degraded and in encouraging, through awareness raising activities and introduction of different land use practices, cattle breeders and other land users of the Vashlovani pasturelands to use the pasture areas sustainably.

Main objectives are:

- To improve the quality of pastures by reducing the pressures of climate change and by rehabilitating the most degraded pastures.
- To provide training and support to the local farmers and sheepbreeders in sustainable land and grazing practices, thereby increasing their capacity in natural resource management, raising awareness and resilience to natural disasters.
- To increase sustainable use of natural resources such as solar and biomass.

Project Scope, Duration, Activities and Actions

The overall scope of the project is to introduce eco-system based approaches to climate change. The particular project site is selected due to its importance as an area vulnerable to climate change under the threat of desertification. In addition the project seeks to show the adaptation benefits to the local communities and thus the focus is on the families dependent on the pasturelands in the area for their livelihood.

Within the scope and timeframe of this project, the target is the degraded pastures in the Vashlovani and the rural population which use this land for their livelihood. Due to the use of this land for subsistence and family income, the approaches to be introduced are based primarily on practical applications involving increasing capacities and skills of sustainable use of the land.

Community mobilization and participation of local people will be essential to the success of this project to achieve ownership and sustainability. Replication of the successful experiences of the project elsewhere in the country and region through the broader Action Fiche to which this Project is associated will be secured through cooperation with other countries via RBEC Regional Service Centre.

By the end of 2012, UNDP Georgia, in cooperation with the Ministry of Environment Protection and collaboration with the Georgian NGO community, will launch a Small Grants Programme (SGP) with Global Environmental Facility funding. The purpose of this SGP is to support NGO and community-based organization initiatives in the environment and among the focuses are topics of sustainable land management, biodiversity and climate change. The SGP will be able to support activities of this

project in the implementation and replication of piloting activities described therein. SGP and the proposed project will be closely coordinated to achieve maximum synergy.

The project will work closely with the Government of Georgia and Agency of Protected Areas, NGO community, private sector representatives in the region and other donors to ensure their interest and support beyond the timeframe of the project.

The proposed project time frame is four years, starting in January 2013.

Expected output 1 – Implementation of sustainable land use practices in Dedoplistskaro region, including partial rehabilitation and maintenance of migratory routes

Output 1 will include conducting an assessment of migratory routes in the Dedoplistskaro region. The inventory will assess the varying conditions of the migratory routes between summer and winter pastures, and those to/from the water sources within the Vashlovani National Park territory. Within these target areas it will be determined which areas are most suitable for rehabilitation and for testing methods by which to improve (manage) the migration of sheep in order to reduce pressures in sensitive areas. Area(s) will then be selected for about 300 ha area based on scientific evidence and assessments to prioritize the area(s) in accordance with the level of degradation and intensity of pressures on the pastures created by human activity. The actual rehabilitation process for migratory areas will start with prioritization of plots for rehabilitation within an area to be specifically defined based upon the inventory conducted. The aim of the rehabilitation of migratory routes will be improvement of these areas to increase their sequestration capacities, reduce pressures from climate change (desertification, land degradation, soil erosion). Rehabilitation will be combined with assessing current patterns and practices for migration to select the best combination of rehabilitation with possible adjustments in the management of flock along the migratory route(s). The rehabilitation will presuppose introduction of improved water and heat supply through solar energy. In parallel to rehabilitation, the project will conduct targeted training of farmers to change from degrading (overgrazing, burning of grass) to sustainable pasture management practices, including reintroduction of any identified forgotten traditional sustainable practices (grazing tactics and such). New rangeland management techniques introduced by the project will include fencing (including living fences), GPS technologies, mobile solar units. Infrastructure will be improved (water supply, access to energy (renewable), security). Implementation of the restoration and alternative rangeland management will be facilitated through an association of cattle-breeders and nomadic shepherds. Monitoring of carbon release and sequestration at the target sites will be implemented. Since this project is one of the first projects solely dedicated to the issues related to pastures management, the various stakeholders involved (Ministry of Agriculture, Ministry of Environment, municipal authorities, etc) have identified the necessity to launch debates on pasture management at the national level. To facilitate this policy debate on pastures management in Georgia, high-level, inter-ministerial discussions will be organized within the framework of the Project.

Activity 1.1: Development and implementation of sustainable pasture management plan

- Update of the pastures inventory will be conducted to provide updated information on the varying degrees of degradation of the migratory routes in the target area. The inventory will provide concrete data on the size (ha plots and specific coordinates) and different categories (in accordance of the level of degradation and need for rehabilitation) based upon which the project will initiate the rehabilitation process ;

- Two pilot projects will be selected and implemented as part of the sustainable pastures management plan. The pilot projects will serve to demonstrate sustainable pasture management practice and a contemporary approach (new technologies) in this sector (fencing, GPS technologies, mobile solar units, etc);
- The infrastructure (water supply, access to energy (renewable), security) of the pastures will be improved to ensure sustainable use and socio-economic value, to secure sustainable livelihoods of farmers;
- Monitoring of the success of the pasture management plan will be established, including the implementation of carbon release and sequestration at target sites.

Activity 1.2: Increase awareness on sustainable land management

- In line with the implementation of the management plan, awareness raising and targeted training of farmers will be conducted to change from degrading (overgrazing, burning of grass) to sustainable pasture management practices, including reintroduction of forgotten traditional sustainable practices (grazing tactics, migratory management and such);
- Support to a coordinated body for cattle-breeders (association) to help improve the economy of nomadic shepherds and include them in the management plans for the pastures.
- In order to contribute to the policy-level debate on land issues in Georgia, the project will use its coordinating functions to organize high-level, inter-ministerial discussions on pasture management in Georgia.

Expected output 2: Implementation of the pastures management plan and development of degraded pastures rehabilitation plan for territories within the Vashlovani PAs

The starting point of Output 2 is the assessment of overgrazed areas within Vashlovani. Nomadic sheep-breeders seasonal migration will be facilitated to release pressure from the most degraded areas in Vashlovani. A plan for rehabilitation will be drawn (rotation of pastures, wind breaks, etc) and put to implementation focusing on the most degraded areas in Bugha Moedani and Kumuro). Carbon release and sequestration before and after restoration will be documented. Climate change impact on the ecosystems of Vashlovani protected areas will be monitored. The sustainability and non-deterioration of pilot carbon pools after the project will be ensured through the maintenance of the pastures by the Agency of Protected Areas of Georgia and by the Vashlovani Protected Areas' administration. This component will also include facilitation of monitoring climate conditions in the territory, to facilitate future resilience of the communities and the park administration to record changes that affect the pastures and choose appropriate management responses, through provision of a meteorological station in the area.

Activity 2.1: Rehabilitation works of the overgrazed territory

- Update of inventory and assessment of pastures in the Dedoplistskaro region;
- Facilitation of nomadic sheep-breeders seasonal migration within overgrazed territories within the Vashlovani PA;
- Assessment of overgrazed territory conducted and plan for rehabilitation works of the overgrazed territory (rotation of pastures, wind breaks and such) introduced.

Activity 2.2: Improvement of pastures quality within the Vashlovani PA

- Implementation of at least two pilot projects (preliminary Bugha Moedani and Kumuro) demonstrating the best practices of pastures' rehabilitation and sustainable management in the territory of PA;
- Establishment of a system for monitoring the impact of climate change on the flora and fauna in the territory of Vashlovani PA, on the degradation, erosion and desertification processes.

Expected output 3: Livelihoods of farmers are improved and sustainability is ensured

A detailed assessment of the full 'production' chain of sheep breeding will be carried out (products and amounts of wool, milk, litter generated in an average period) and assessment of potential diversification and identification of potential for increase in productivity, including a survey of the population on interest in diversification/increase in productivity. Implementation of the most promising technologies will be supported (in cheese production, diversified technologies for increase in quality/production capacity from wool/sheep milk/litter, use of alternative energy sources for water and heat supply). By increasing the productivity and diversification of the livelihoods in the area, the direct pressures on the pastures will be reduced in order to avoid over-grazing. Any communities, currently using the wood in the immediate area for energy purposes, will be introduced to alternative energy sources for heat supply. During the detailed assessment of the full production chain, the potential avenues for diversification of the use of natural resources in the area are expected to identify areas for activity which will increase the resilience of the local populations to climate change. The project will conclude with a series of workshops and publications aimed at dissemination of its results among other shepherds in Georgia. The dissemination of best practices will also include an assessment of the pastures management plans developed under 1.1. and implemented under 2.2 in order to assess their success in improving the management of the pastures and identifying the common approach based upon which a guideline could be developed for adapting best practices in pasture management plans to other territories in Georgia.

Activity 3.1: Diversification of sustainable livelihood practices

- Detailed assessment of the full 'production' chain of sheep breeding (products and amounts of wool, milk, litter generated in an average period) and assessment of potential diversification and identification of potential for increase in productivity, including a survey of the population on interest in diversification/increase in productivity;
- Piloting of new technologies and know-how identified (new technologies in cheese production, diversified technologies for increase in quality/production capacity from wool/sheep milk/litter, use of alternative energy sources for water and heat supply);

Activity 3.2: Dissemination of best practices

- Assessment of pilots conducted and preparation of dissemination strategy developed for target beneficiaries (individuals, farmers' associations, municipalities);
- Assessment of the application of pasture management plans within the target territory and recommendations for further dissemination in Georgia;
- Dissemination of successful piloting to other shepherds in Georgia and neighboring countries.

III. RESULTS AND RESOURCES FRAMEWORK

Expected UNDP Outcome as stated in the UNDAF:

Underlying disaster risk factors are reduced, focusing on sustainable environmental and natural resource management – 3.4

Outcome indicators as stated in the Country Program Action Plan (CPAP), including baseline and targets:

Indicators: Enabling environment and status of implementation of national and international environmental commitments – 3.2.1

Baseline: Enabling environment and status of implementation of national and international environmental conventions/agreements is limited (e.g. UNFCCC, UNCBD, etc) 3.2.1

Targets: Enabling environment established and national and international environmental commitments implemented - 3.2.3

Applicable Key Thematic Area (from 20011-2015 UNDAF): Disaster Risk Reduction

Management Arrangement: The project will be implemented by the UNDP Georgia CO through Direct Implementation (DIM) modality in partnership with the Ministry of Environmental Protection of Georgia, acting through the Agency of Protected Areas (APA).

The day-to-day operation of the project will be ensured by a Project Management Unit established by UNDP.

The project will be directed by a Project Executive Board. It will cooperate with other important stakeholders and organizations working in the similar fields and region.

Project title and ID 00084937 (ATLAS Award ID: 00073514): Sustainable management of pastures in Georgia to demonstrate climate change mitigation and adaptation benefits and dividends for local communities

INTENDED OUTPUTS AND INDICATORS	OUTPUT TARGETS FOR (YEARS)	INDICATIVE ACTIVITIES	RESPONSIBLE PARTIES	INPUTS
Output 1: Implementation of	Year 2013 Sustainable pasture	1.1. Development of sustainable pasture management plan and	Ministry of Environment Protection / APA;	International consultancy services for technical advisor

<p>sustainable land use practices in Dedoplistskaro region, including partial rehabilitation and restoration of migratory routes</p> <p>Baseline: Degraded pastures in VPAs</p> <p>Indicators:</p> <ul style="list-style-type: none"> ▪ Sustainable pasture management plan developed and implemented ▪ 300 ha migratory routes rehabilitation. ▪ Local farmers knowledge in sustainable land management practices increased and SLM practices applied. ▪ Pilot projects established and lessons learned extracted and 	<p>management plan developed and implementation started.</p> <p>Assessment of potential pilot sites conducted. Agreements with pilot sites made. Activities initiated.</p> <p>Survey of existing farming practices made and needs assessment for SLM training conducted.</p> <p>Training programme developed.</p> <p>Baseline for carbon stock measurements prepared.</p> <p>Year 2014</p> <p>Farmers trained.</p> <p>Association of cattle-breeders supported.</p> <p>Infrastructure projects developed and implemented</p> <p>Inter-ministerial policy</p>	<p>initiation of migratory route rehabilitation process (prioritization of plots for rehabilitation, land preparation, etc.);</p> <p>1.2. Awareness raising and targeted training of farmers to change from degrading (overgrazing, burning of grass) to sustainable pasture management practices, including reintroduction of forgotten traditional sustainable practices (grazing tactics and such);</p> <p>1.3. Implementation of at least two pilot projects demonstrating sustainable pasture management practice and contemporary approach (new technologies) in this sector (fencing, GPS technologies, mobile solar units, etc);</p> <p>1.4. Improvement of infrastructure in pastures (water supply, access to energy (renewable), security) to ensure success of the territory for sustainable use and socio-economic value,</p>	<p>Ministry of Agriculture, regional authorities, community –based organization</p>	<p>Pastures Management::</p> <p>40,000 USD Local consultants for development of and implementation of training of farmers:</p> <p>20,000 USD</p> <p>Local consultant on capacity assessment of farmers and communities: 16,000 USD</p> <p>Local consultants on pasture management plan development: 160,000 USD</p> <p>Local and international travel:</p> <p>15,000 USD Professional services:</p> <p>7,000 USD</p> <p>Contractual services (with companies) for:</p> <p>- update of inventory, prioritization and mapping of</p>
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<p>disseminated.</p> <ul style="list-style-type: none"> ▪ Infrastructure improved. ▪ Capacity of Association of sheep-breeders is improved to coordinate the activities. ▪ Carbon release and sequestration monitoring established and conducted. ▪ Inter-ministerial policy debate on pastures management issues initiated on national level. Key priority actions agreed. 	<p>discussion on pastures management initiated</p> <p>Year 2015</p> <p>Monitoring of degraded area(s), carbon release and sequestration.</p> <p>Farmers trained.</p> <p>Year 2016</p> <p>Monitoring of degraded area(s), carbon release and sequestration.</p> <p>Priority actions for developments in policy debate on pastures management introduced</p>	<p>to secure sustainable livelihoods of farmers;</p> <p>1.5 Building the capacity of coordinated body for cattle-breeders (association) to improve economy of nomadic shepherds;</p> <p>1.6. Implementation of monitoring of carbon release and sequestration at target sites.</p>	<p>migratory routes for rehabilitation works</p> <p>15,000 USD</p> <p>- implementation of technical pilots</p> <p>82,251 USD</p> <p>- workshops 20,000 USD</p> <p>- monitoring of carbon stock changes at target sites (methodology development, field work, laboratory analysis, actual monitoring works at least 2 times during the project - baseline and final)</p> <p>70,000 USD</p> <p>Local Consistency on Pastures Management 30,000 USD</p> <p>Communications, publication and other costs:</p> <p>15, 500 USD</p>
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<p>Output 2: Implementation of the pastures management plan and development of degraded pastures rehabilitation plan for territories within the Vashlovani PAs</p> <p>Baseline: 4,064 ha of VPAs severely or modestly degraded</p> <p>Indicators:</p> <ul style="list-style-type: none"> • Rehabilitation of 4 064 ha. • Introduction of sustainable land use practices. • Monitoring system on climate conditions introduced 	<p>Year 2013</p> <p>Inventory of pastures conducted.</p> <p>Assessment of conditions of pastures and rehabilitation works.</p> <p>Year 2014</p> <p>Development of plan for rehabilitation works.</p> <p>Development of monitoring plan, including monitoring of climate conditions (technical specification for micro-level monitoring and opportunity to establish connectivity to national monitoring)</p> <p>Rehabilitation works initiated.</p> <p>Site visits.</p> <p>Year 2015</p>	<p>2.1. Update of inventory and assessment of pastures in the Dedpolistskaro region;</p> <p>2.2. Facilitation of nomadic sheep-breeders seasonal migration along overgrazed territories within the Vashlovani PA;</p> <p>2.3. Assessment of overgrazed territory conducted and plan for rehabilitation works of the overgrazed territory (rotation of pastures, wind breaks, and such, irrigation) introduced;</p> <p>2.4. Implementation at least two pilot projects (preliminary Bugha Moedani and Kumuro) demonstrating the best practices of pastures' rehabilitation and sustainable management in the territory of PA;</p>	<p>Ministry of Environment Protection / APA;</p> <p>Ministry of Agriculture, regional authorities, community –based organization</p>	<p>Sub-total: 485,751 USD</p> <p>Local technical advisor consultancy for monitoring: 30,000 USD- implementation of technical pilots</p> <p>96,509 USD</p> <p>Contractual works for rehabilitation of pastures (wind breaks and other works): 130,000 USD</p> <p>Domestic and international travel: 10,000 USD</p> <p>Local consultants for development of RFQ for rehabilitation works: 4,000 USD</p> <p>Local consultant on the development of monitoring of ecosystems: 3,000 USD</p> <p>Local Consultants for assessment and rehabilitation</p>
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<p>Output 3: Livelihoods of farmers are improved and sustainability is ensured</p> <p>Baseline: Local community resilience in pasturelands is low.</p> <p>Indicators:</p> <p>Introduction of new technologies.</p> <p>Dissemination reports. Information disseminated within</p>	<p>Rehabilitation works conducted.</p> <p>Pilot projects initiated.</p> <p>Monitoring programme launched.</p> <p>Year 2016</p> <p>Monitoring programme data collected.</p>	<p>2.5 Establishment of a system for monitoring the impact of climate change on the flora and fauna in the territory of Vashlovani PA, on the degradation, erosion and desertification processes.</p>		<p>plan</p> <p>30,000 USD Contractual services for introduction of new technologies:</p> <p>25,000 USD Communications, publications and other costs:</p> <p>10,000 USD</p> <p>Sub-total: 338,509 USD</p>
<p>Year 2013</p> <p>Year 2014</p> <p>Development of recruitment plan and TORs for expert team(s).</p> <p>Environmental and economic assessment of diversification of sustainable livelihoods.</p> <p>Year 2015</p> <p>Introduction of new technologies. Pilot launching.</p> <p>Assessment of pilot projects</p>	<p>3.1. Detailed assessment of the full 'production' chain of sheep breeding (products and amounts of wool, milk, litter generated in an average period) and assessment of potential diversification and identification of potential for increase in productivity, including a survey of the population on interest in diversification/increase in productivity;</p> <p>3.2. Piloting of new technologies and know-how identified under 1.3.1 (new technologies in cheese production, diversified</p>	<p>Ministry of Environment Protection / APA;</p> <p>Ministry of Agriculture, regional authorities, community –based organization</p>	<p>International consultancy for economic assessment:</p> <p>12,000 USD</p> <p>National team of consultants for: economic assessment/market research, analysis of socio- and environmental impacts, identification of gender perspectives, development of scenarios and projections on affects of productivity, survey of population (baseline):</p> <p>40,000 USD</p>	

<p>Georgia and to neighboring countries.</p> <p>Increase in productivity in piloted areas.</p>	<p>and pasture management plans conducted, draft of dissemination strategy prepared.</p> <p>Year 2016</p> <p>Dissemination plan for best practices developed and implemented.</p>	<p>technologies for increase in quality/production capacity from wool/sheep milk/litter, use of alternative energy sources for water and heat supply);</p> <p>3.3. Assessment of the success of the pilot projects and pasture management plans. Identification of lessons learned and methods of application to other territories elaborated.</p> <p>3.4. Dissemination strategy prepared with participation from pilot territory and experts.</p> <p>3.5. Dissemination of successful piloting to other shepherds in Georgia and neighboring countries.</p>	<p>Monitoring of change after diversification (survey of population, identification of dissemination opportunities to other pastures in Georgia): 10,000 USD</p> <p>Local and international travel (including neighboring countries, participation in presentation of lessons learned): 27,000 USD</p> <p>Local consultant for development of new technologies RFOs: 5,000 USD</p> <p>Contractual services (with companies) for introduction of new technologies: 92,000 USD</p> <p>Contractual services for dissemination materials: 10,000 USD</p>
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<p>Output 4: Project management</p> <p>Indicators:</p> <ul style="list-style-type: none"> ▪ Project results achieved. ▪ Project delivery met. ▪ Activities implemented as 	<p>Year 2013</p> <p>Project management team recruited.</p> <p>Inception phase launched.</p> <p>Detailed project work plan developed and approved.</p> <p>Technical expertise requirements identified and ToRs developed</p>	<p>4.1. Project office and project management team established.</p> <p>4.2. Management and oversight of project conducted.</p> <p>4.3. Monitoring through site visits, reporting and other methods.</p>	<p>UNDP Georgia/PMU</p>	<p>Contractual services for purchase of new technologies: 50,000 USD</p> <p>Contractual services for workshops (including local consultants for facilitation, facilities and other costs): 50,000 USD</p> <p>Miscellaneous supplies, etc: 6,500 USD</p> <p>Sub-total: 302,500 USD</p>
				<p>Project management - Project staff, equipment, local travel, printing and production costs, connectivity charges, miscellaneous and PEB meetings, etc: 172,840 USD</p> <p>Project evaluation -- International evaluators at</p>

planned.				mid- and final term 18,000 USD International and local travel for mid- and final evaluation 2,000 USD Local consultants for mid- and final evaluation 6,000 USD Sub-total: 198,840 USD
	PEB established and inception workshop conducted. Regular monitoring conducted. Quarterly and annual reports prepared and submitted. Year 2014 AWP reviewed and approved. PEB meetings conducted. Quarterly and annual reports prepared and submitted. Mid-term evaluation conducted. Management responses prepared and introduced. Year 2015 AWP reviewed and approved. PEB meetings conducted. Quarterly and annual reports			

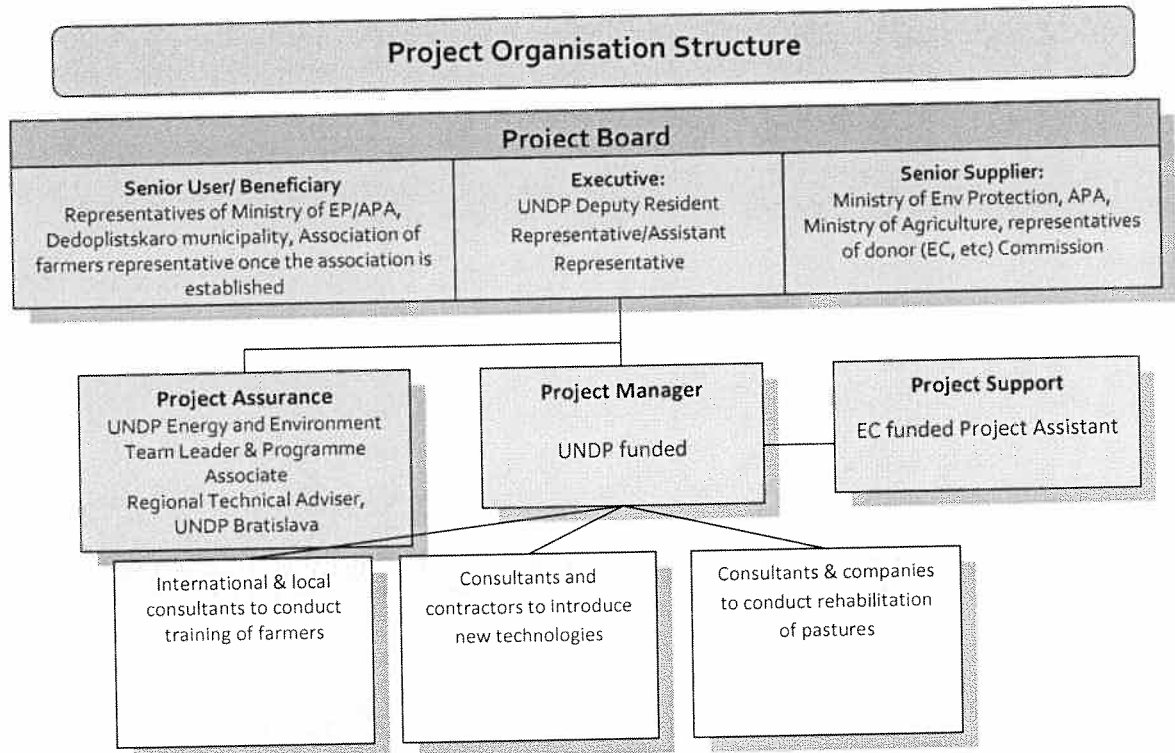
	<p>prepared and submitted.</p> <p>Year 2016</p> <p>AWP reviewed and approved.</p> <p>PEB meetings conducted.</p> <p>Final evaluation conducted.</p> <p>Final report including lessons learnt prepared and distributed.</p>			
				<p>Total: 1,325,600 USD</p>

Annual Work Plan

Output	KEY ACTIVITIES	PLANNED BUDGET (in USD)										GRAND TOTAL
		Fund	Donor	Budget Account	Budget Description	2013	2014	2015	2016			
		30079		71200	International Consultants	19,294.60		20,000.00			39,294.60	
		30079		71400	Contractual Service - Individ	23,000.40					36,748.39	
		30079		71300	Local Consultants	2,183.10		20,000.00		6,500.00	63,000.00	
		30079		71600	Travel	4,404.00		4,555.00		596.00	15,000.00	
	Activity 1 - Implementation of sustainable land use practices in Dedoplistskaro region, including partial rehabilitation and restoration of migratory routes	30079	EU	72800	Information Technology Equipment		30,404.00				30,404.00	
		30079		72400	Communication& Audio/Visual Equipment	700.00		5,000.00		6,736.90	15,500.00	
		30079		74100	Professional Services	15,775.00		82,251.00		42,893.09	273,567.11	
		30079		72100	Contractual Services - Companies	236.90		1,000.00			1,236.90	
		30079		74200	Audio/Visual Print. Product Costs	728.30		2,271.70			3,000.00	
		30079		72500	Supplies	47,027.70	250,191.31	131,806		56,726	485,751.00	
	Sub-Total for ACTIVITY 1					17,000.00		30,000.00		10,000.00	40,000.00	
		30079		71200	International Consultants						40,000.00	
		30079		71400	Contractual Service - Individ						215,396.61	
		30079		72100	Contractual Services - Companies	31,683.42	92,879.10	65,000.00		25,834.09	33,000.00	
		30079	EU	71300	Local Consultants	1,830.00	24,645.99	6,524.01			6,329.39	
		30079		71600	Travel		6,329.39				12,600.00	
		30079		72400	Communication& Audio/Visual Equipment	3,300.20	9,299.80				4,000.00	
		30079		72500	Supplies	940.00	3,060.00				4,000.00	
		30079		74100	Professional Services	2,999.90	1,000.10				6,183.00	
		30079	UNDP	71400	Contractual Services - Companies	6,183.00					338,509.00	
	Sub-Total for ACTIVITY 2					46,936.52	154,214.38	101,524		35,834	12,000.00	
		30079		71200	International Consultants						55,000.00	
		30079		71300	Local Consultants						44,672.00	
		30079		71600	Travel	2,672.00		27,000.00		15,000.00	113,892.02	
		30079	EU	72100	Contractual Services - Companies		6,000.00	35,840.00		72,052.02	61,946.30	
		30079		72800	Information Technology Equipment		11,946.30			50,000.00	4,028.00	
		30079		72500	Supplies	1,700.00	328.00			2,000.00	8,952.52	
		30079		74100	Professional Services						2,009.16	
		30079		74200	Audio/Visual Print. Product Costs		2,009.16				302,500.00	
	Sub-Total for ACTIVITY 3					4,372.00	20,283.46	114,840		163,005	17,301.15	
		04000	UNDP	71400	Contractual Services - Individ	5,951.15		6,125.00		5,225.00	3,415.85	
		04000		74500	Miscellaneous Expenses	540.85	775.00	600.00		1,500.00	177,857.88	
		30079	EU	71400	Contractual Service - Individ	8,633.00	29,213.72	70,011.16			265.12	
		30079		74500	Miscellaneous Expenses	265.12					198,840.00	
	Sub-Total for ACTIVITY 4					9,438.97	35,939.87	76,736		76,725	90,909.00	
	TOTAL GMS 7%					6,934.60	31,912.19	26,219.55		25,842.65	1,416,509.00	
	TOTAL PROJECT FUNDS					114,709.79	492,541.21	451,126		358,132	1,389,609.00	
	TOTAL EU					107,985.94	485,815.06	444,401		351,407	26,900.00	
	TOTAL UNDP TRAC					6,723.85	6,726.15	6,725.00		6,725.00		

The total budget that is a subject of approval for this project amounts 1,000,000 euros of the EU contribution, currently calculated with the rate 1.2987. The budget maintained through UNDP financial system Atlas will be expressed in US dollars, as this is usual way of operation for UNDP projects. . Thus, the final amount for the project in US dollars will depend on actual exchange rates at the time of allocation of further installments from EU to UN

IV. MANAGEMENT ARRANGEMENTS



Overall management responsibilities:

The Project will be directly implemented by UNDP under the supervision of Energy and Environment Team. The Project Management Unit (PMU), will be established composed of a Project Manager (PM) and an Admin/Finance Assistant. The PMU will oversee and supervise day-to-day activities under this project.

Project teams, responsible parties: experienced service providers will be selected and hired through standard UNDP procedures to implement project activities. The farming/ sheep-breeding community will be mobilized, trained and supported.

PMU will work closely with the National Counterpart - the Ministry of Environmental protection and Agency of Protected Areas, as well as with the Ministry of Agriculture, regional authorities, local communities, other stakeholders and players represented in

region and working in the same field, including relevant NGOs, donor agencies and private companies.

- Communications: PMU will communicate the project related information with a variety of audiences in line with UNDP communication strategy. It will be in charge of keeping the stakeholders, including European Commission (via Bratislava Regional Centre) informed of the progress overall and on the important project events. PMU will maintain a high level of transparency and openness throughout the project implementation. The same standard will also apply to all publicity materials and public events.

Unless the European Commission requests or agrees otherwise, UNDP shall take all appropriate measures to publicize the fact that the Project has received funding from the European Union. Information given to the press, the beneficiaries of the Project, all related publicity material, official notices, reports and publications, shall acknowledge that the Project was carried out "with funding by the European Union" and shall display in an appropriate way the European logo (twelve yellow stars on a blue background). Such measures shall be carried out in accordance with the Communication and Visibility Manual for EU External Actions laid down and published by the European Commission, or any other guidelines agreed between the European Commission and UNDP.

It is understood that the UNDP's equipment and vehicles may routinely carry its emblem and other indications of ownership prominently displayed. In cases where equipment or vehicles and major supplies have been purchased using funds provided by the European Union, UNDP shall 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's privileges and immunities and the safety and security of UNDP's staff.

The size and prominence of the acknowledgement and European Union logo shall be clearly visible in a manner that will not create any confusion regarding the identification of the Action as an activity of UNDP, the ownership of the equipment and supplies by the UNDP, and the application to the Project of UNDP's privileges and immunities.

All publications by UNDP pertaining to the Project, 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."

If the equipment bought with a European Union contribution is not transferred to local partners of UNDP or the final recipient of the Project at the latest when submitting the final report, the visibility requirements as regards this equipment (in particular display

of the European logo) shall continue to apply between submission of the final report and the end of the overall project, programme or action of UNDP, if the latter is longer.

Publicity pertaining to European Union contributions shall quote these contributions in Euro (€ or EUR), in parenthesis if necessary. UNDP's publications and reports prepared in response to, and in accordance with, its legislative directives are excluded from this provision.

Procedures: UNDP standard rules and regulations will be applied for overall project management including budget, procurement of goods and services, recruitment of additional expertise, payments to service providers and contractors and other project operations.

Gender mainstreaming will be ensured through equal participation of men and women at project management and expert level. Further consideration is given to gender in the activities of the contracted NGOs.

The Project Executive Board (PEB) will direct the Project and be the ultimate decision-maker for it. It will ensure that the project remains on course to deliver the desired outcomes of the required quality. The PEB will make management decisions for the Project when guidance is required or when Project tolerances have been exceeded. More specifically, the PEB will set up tolerance levels for Project stages in terms of duration and disbursement of financial resources. The PEB will review and clear Annual Work Plans (AWP) and annual progress achieved by the Project through Annual Project Reviews based on the approved annual work plans. The Annual Work Plan and the budget revisions will be prepared for the UNDP CO approval. It will review and approve project stage (quarterly) plans and will authorize any major deviation from these agreed plans. The PEB is the authority that signs off on the completion of each stage plan as well as authorizes the start of the next stage plan. It will ensure that required resources are committed, will arbitrate any conflicts within the project or negotiate a solution to any problems between the project and external bodies. The PEB will meet on a quarterly basis (more often if required). Prior to the quarterly meetings, the PM will duly submit the progress report on the previous period and the plan for the next one. The PEB will evaluate submitted documents and be in charge of approving plans and budgets.

The PEB will be composed of the Executive, Senior User/Beneficiary and Senior Supplier roles.

The Executive is ultimately responsible for the Project, supported by the Senior User/Beneficiary and Senior Supplier. The Executive's role is to ensure that the Project is focused throughout its life cycle on achieving its outputs. The Executive has to ensure that the Project has a cost-conscious approach, balancing the demands of the user (or beneficiary) and the supplier. For the project purposes, National Director, UNDP Deputy Resident Representative or Assistant Representative will play the executive role.

The Senior User/Beneficiary is responsible for specification of the needs of all those who will be primarily using or benefiting from the project outputs, for user liaison with the project team and for monitoring that the solution will meet those needs. The Senior User role commits user resources and monitors project outputs against agreed requirements. Ministry of Environment Protection, through the Agency of Protected Areas, will represent the Senior User in the PEB. Representatives of the Ministry of Agriculture, the regional authorities from the Dedoplistskaro district and the local community (more particularly a representative of the Association of sheep-breeders once it is established), will be invited as and when relevant.

The Senior Supplier represents the interests of those committing resources either financial or human to the project. The Senior Supplier is accountable for the quality of the outputs delivered by the supplier(s). The Senior Supplier role must have the authority to commit or acquire the supplier resources required. The Ministry of EP and APA will this role in the PEB. A representative of the European Commission (Office of the Delegation of the European Union to Georgia) will also be invited to the PEB as senior supplier. Other interested donors might also be invited to the board either as a permanent members or observers.

During the inception phase the role of NGOs and other stakeholders on the issue of pastures management in the target area and the need to include them in the Project Board within the role of Senior Supplier will be assessed. In particular the NGO NACRES, who have prior activities in the Vashlovani National Park area shall be considered due to their financial and human resource input into this territory and on the issue of pastures management, in particular. Upon assessment of the degree of their involvement, the decision on expanding the PB will be made based on the degree of coordination needed between the Project and other initiatives.

Project Assurance is one of the key roles in the project management structure. The Project Assurance will act as an objective quality monitoring agent, avoiding the potential "self-serving bias". In addition, the project assurance will verify the products'

or outputs' quality. While this role is the responsibility of each Project Board member, it will be delegated to UNDP Energy and Environment Team Leader/Program Associate to ensure appropriate project milestones are managed and completed as well as objective project oversight and monitoring achieved. UNDP's Regional Centre in Bratislava will provide support services to the country office in executing this role.

V. MONITORING FRAMEWORK AND EVALUATION

The PMU and the UNDP Country Office (UNDP-CO) supported by the UNDP Regional Technical Advisor for Natural Resource in Bratislava will be responsible for project monitoring and evaluation conducted in accordance with programming policies and procedures outlined in UNDP User Guide and with EC procedures. The Project Results Framework provides performance and impact indicators for project implementation, along with their corresponding means of verification.

The project will be monitored through the following:

Within the annual cycle

- 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 Management table below.
- 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 analysis submitted (see Annex 1), a risk log shall be activated in Atlas and regularly updated by reviewing the external environment that may affect the project implementation.
- Based on the above information recorded in Atlas, a Project Progress Reports (PPR) shall be submitted by the Project Manager to the Project Board through Project Assurance, using the standard report format available in the Executive Snapshot.
- 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 of the Lessons-learned Report at the end of the project
- a Monitoring Schedule Plan shall be activated in Atlas and updated to track key management actions/events

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 to 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 rephasings. The IW 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.

Periodic Monitoring through site visits:

- UNDP CO and the UNDP RCU will conduct visits to project sites based on the agreed schedule in the project's Inception Report/Annual Work Plan to assess first hand project progress. Other members of the Project Board may also join these visits. A Field Visit Report/Back to Office Report (BTOR)will be prepared by the CO and UNDP RCU and will be circulated no less than one month after the visit to the project team and Project Board members.

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 be prepared in line with UNDP and EC reporting requirements and will 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 submitted to the Regional Technical Advisor no later than 2 months after end of a year. The APR 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. AWP and other 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. ATLAS Quarterly Progress Report
- Section 7. Plan for the following 12 months period, including forecasted progress in the achievement of project objective(s) and indicators, as well as financial plan (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.

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 organization, terms of reference and timing of the mid-term evaluation will be decided after consultation between the parties to the project document. 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 minimum 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 to Regional Technical Advisor no later than 3 months after closure of the project.

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 through 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.

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 the UNDP.
- Unless otherwise specified in the Special Conditions, the equipment, vehicles and supplies paid for by the Contracting Authority's funding shall be transferred to local authorities or local partners (excluding commercial contractors) of the UNDP or the final recipients of the Project 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 General Conditions.

Audit

- The Audit will be conducted in the last year of project implementation by the legally recognized independent auditor, selected in accordance with UNDP rules and procedures, or if and when requested by EC.

VI. 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 [or other appropriate governing agreement] 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:

- a) 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;
- b) 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".

LIST OF ANNEXES

Annex I	Risk Log
Annex II	Terms of References – Project Management Unit (Project Manager / Project Assistant)
Annex III	Agreement between UNDP and EC
Annex IV	Calculation of carbon mitigation as a result of project activities in the territory
Annex V	Project budget

ANNEX I: RISK LOG

PROJECT OFFLINE RISK LOG

		Award ID: 00071514 Project ID: 00084937		Date:					
#	Description	Date Identified	Type	Impact & Probability	Countermeasures / Management response	Owner	Submitted, updated by	Last Update	Status
1	Climate change risk much more critical than estimated	Project design	Environment	LOW	The degraded area focused upon in this project has been the focus of assessments on climate change and adaptation efforts by Second National Communication of Georgia to the UN FCCC. Assessments prepared prior to the project development show good possibility for success.				

2	Variability in success of pasture rehabilitation efforts	<i>Project design</i>	Operational	Moderate	<p>Nonetheless proper organization of rehabilitation works complimented by sound management practices tailored to capture situation. Monitoring programme and management plan should ensure long-term capacity to adapt to changes.</p> <p>Feasibility study will assess the best appropriate approach for rehabilitation efforts. Capacities of Agency of Protected Areas strengthened to ensure proper</p>				

					maintenance to secure rehabilitation efforts in the Vashlovani PAs.					
4	Limited success on regeneration of the pastures ecosystem in the Vashlovani PAs	Project design	Environmental	Moderate	Pasture rehabilitation conducted to minimize risks of further degradation from climate risks (wind breaks) thus maximizing success of regeneration of flora. Monitoring indicator programme established and maintained to identify trends and actions in the management plan for improving success rate of reintroduction and rehabilitation					

5	Reluctance of local population to be involved in new livelihoods initiatives	Project design	Organizational	Low	activities. Feasibility study, including market research and a survey of attitudes of local entrepreneurs will as much as possible tailor project pilot activities to realistic opportunities for introduction and replication. Ownership of ideas will be facilitated through raised awareness and evidence-based negotiations on innovations.				
6	Changing priorities/ re-shuffle of government agencies	Project design	Organizational	moderate	Close monitoring of the situation; Efforts to sensitize /				

				promote sustainable pasture management practices						
--	--	--	--	--	--	--	--	--	--	--

ANNEX II: TERMS OF REFERENCE

Terms of Reference: Project Manager

Location :	Tbilisi
Project Title:	Sustainable management of pastures in Georgia to demonstrate climate change mitigation and adaptation benefits and dividends for local communities
Workload:	Full Time (40 hrs per week)
Application Deadline :	<i>Tbd</i>
Type of Contract :	Service Contract
Post Level :	SB4-Quartile 1
Languages Required :	English, Georgian
Starting Date : (date when the selected candidate is expected to start)	<i>Tbd</i>
Duration of Initial Contract :	12 months, with possibility of extension
Background	

The overall goal of this project is the rehabilitation of pasturelands and the introduction of sustainable grazing practices in Georgia. The project will achieve this through various activities conducted to rehabilitate the pastures that are degraded and in encouraging, through awareness raising activities and introduction of different land use practices, cattle breeders and other land users of the Vashlovani pasturelands to use the areas pastures sustainably.

Main objectives of the project are:

- To improve the quality of pastures by reducing the pressures of climate change and by rehabilitating the most degraded pastures.
- To encourage economic activity to be reduced in pasturelands located in the protected area and increased in areas less vulnerable.
- To provide training and support to the local farmers and sheep breeders in sustainable land and grazing practices, thereby increasing their capacity in natural resource management, raising awareness and resilience to natural disasters.
- To increase sustainable use of natural resources such as solar and biomass.

Duties and Responsibilities

Under direct supervision of the Energy and Environment Team Leader, the Project Manager's

responsibilities are as follows:

Summary of Key Functions:

- Responsibility for day-to-day management and decision-making for the project and supervision of the Project Team;
- Authority to run the project on a day-to-day basis on behalf of the Project Board and within the constraints laid down by the Board.
- Primary 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.

The Project Manager Ensures effective **management of the project and supervision of the project team** focusing on achieving the following results:

- Manage the realization of project outputs through activities according to the approved project work plan through:
 - Effective application of results-based management tools, establishment of benchmarks, indicators and targets and, monitoring and reporting of achievement of results;
 - Planning, budgeting, implementing and monitoring of the project, tracking use of financial resources in accordance with UNDP rules and regulations;
 - Mobilization of goods and services to initiative activities, including drafting TORs and work specifications for experts recruitment processes for project components;
 - Overseeing procurement processes and technical evaluations; liaise with suppliers;
 - Facilitation of organization of the scheduled consultations/workshops and ensure their success;
 - Managing requests for the provision of financial resources by UNDP, such as requests for direct payments;
 - Facilitation and moderation of the Project Executive Board (PEB) meetings;
 - Close interaction with all relevant stakeholders and other partners, including target municipal authorities and local communities to ensure their involvement;
 - Fostering/facilitation, establishment and maintaining links with other climate change and disaster risk reduction projects and other related national and international projects;
 - Overseeing and contribution to finalization of project outputs, such as the annual reports etc;
 - Provision of direction and guidance to project team and responsible parties;
 - Identification and synthesis of the best practices and lessons learned directly linked to the project;
 - Preparation of technical, policy and briefing papers as requested by the national counterparts and UNDP CO management;
 - Identification and obtaining any support and advice required for the management, planning and control of the project;

In addition, **specific tasks and responsibilities** of the proposed assignment include, but are not

limited to the following:

- Plan the activities of the project and monitor progress against the indicators as outlined in the project's logical framework;
- Manage and monitor the project risks as initially identified in the Project Brief appraised by the LPAC, submit new risks to the Project Board for consideration and decision on possible actions if required; update the status of these risks by maintaining the Project Risks Log;
- Be responsible for managing issues and requests for change by maintaining an Issues Log;
- Prepare the Project Progress Reports, Annual Review and Final Review (progress against planned activities, update on Risks and Issues, expenditures) and submit the report to the Project Board and Project Assurance on a regular basis;
- Monitoring events as determined in the Monitoring & Evaluation Plan, and update the plan as required;
- Prepare the Annual Work Plans and Quarterly Plans, as required
- Be open for knowledge sharing on project-related issues with UNDP and project staff, national counterparts and communities of practice.
- Perform liaison function between national counterparts, project office and UNDP;
- Ensuring visibility of project results, and of all relevant partners, in line with UNDP rules and regulations;
- Manage the transfer of project deliverables, documents, files, equipment and materials to national beneficiaries, as required;

Competencies

Corporate Competencies:

- Demonstrates integrity by modeling the UN's values and ethical standards
- Promotes the vision, mission, and strategic goals of UNDP
- Displays cultural, gender, religion, race, nationality and age sensitivity and adaptability

Functional Competencies:

Development and Operational Effectiveness

- Ability to lead strategic planning, results-based management and reporting
- Ability to lead formulation, implementation, monitoring and evaluation of development projects
- Ability to formulate and manage budgets
- Good ICT skills

Management and Leadership

- Builds strong relationships with clients, focuses on impact and result for the client and responds positively to feedback
- Consistently approaches work with energy and a positive, constructive attitude

- Demonstrates good oral and written communication skills
- Demonstrates openness to change and ability to manage complexities

Required Skills and Experience

Education: At least Master's Degree or equivalent from accredited Universities/colleges in natural resources management, agriculture, environmental protection, environmental economics or other related field relevant to the project;

Experience:

- Minimum 3 years of experience in the area relevant to the project;
- Minimum 5 years of demonstrated experience in managing programmes/projects and in liaising and co-operating with project personnel including government officials, scientific institutions, NGO and private sector;
- Proven knowledge and good understanding of Climate Change-related issues and overall sustainable development issues;
- Substantial experience of work in Government institutions and knowledge of applicable procedures is a strong asset;
- Experience of work with local municipal authorities and communities is a strong asset;
- Good analytical, interpersonal and training/facilitation skills
- Experience in the usage of computers and office software packages, experience in handling of web based management systems
- Excellent writing, oral, communications and presentation skills

Language Requirements: Fluency in English and Georgian.

UNDP is committed to achieving workforce diversity in terms of gender, nationality and culture. Individuals from minority groups, indigenous groups and persons with disabilities are equally encouraged to apply. All applications will be treated with the strictest confidence.

Terms of reference: Project Administrative/Finance Assistant

Location :	Tbilisi
Project Title:	Sustainable management of pastures in Georgia to demonstrate climate change mitigation and adaptation benefits and dividends for local communities
Type of Contract :	Service Contract
Post Level :	SB3-Quartile 1
Workload:	Full Time (40 hrs per week)
Languages Required :	English, Georgian
Application Deadline :	<i>tbd</i>
Starting Date : (date when the selected candidate is expected to start)	<i>tbd</i>
Duration of Initial Contract :	12 months, with possibility of extension
Background	

The overall goal of this project is the rehabilitation of pasturelands and the introduction of sustainable grazing practices in Georgia. The project will achieve this through various activities conducted to rehabilitate the pastures that are degraded and in encouraging, through awareness raising activities and introduction of different land use practices, cattle breeders and other land users of the Vashlovani pasturelands to use the areas pastures sustainably.

Main objectives of the project are:

- To improve the quality of pastures by reducing the pressures of climate change and by rehabilitating the most degraded pastures.
- To encourage economic activity to be reduced in pasturelands located in the protected area and increased in areas less vulnerable.
- To provide training and support to the local farmers and sheep breeders in sustainable land and grazing practices, thereby increasing their capacity in natural resource management, raising awareness and resilience to natural disasters.
- To increase sustainable use of natural resources such as solar and biomass.

Duties and Responsibilities

The Administrative/Finance Assistant will work under the direct supervision of the Project Manager. The Assistant will provide support to Project Manager in undertaking project management activities on a daily basis and represent the project in the absence of the Manager.

The main tasks of the Assistant will consist of supporting the Project Manager with on the completion of various tasks and making necessary arrangements for coordinating project activities in compliance with the UNDP rules and regulations.

In particular, the Finance and Administrative Assistant will carry out the following tasks and activities:

Substantive Functions:

- Provide support to the Manager in developing project quarterly work and financial plans, progress and financial reports;
- Provide support in liaison with the UNDP local office, other international and national stakeholder organizations, the project executive board and other project partners;
- Provide support in coordinating and supervising the national consultants and international in timely collection and compilation of the necessary data/information;
- Provide support in organizing and facilitating meetings with stakeholders, including preparation of budgets and other related materials for the meetings, coordinating logistical support to participants, take minutes.
- Provide support in the use of Atlas (external module and intranet resources) for monitoring and reporting;
- Be fully aware of the financial status of the project and be able to provide necessary information/data;
- Participate in preparation of budget revisions to reflect the latest needs of the project;

Administrative functions:

- Organize project files, register and keep track of contracts and other documents related to the project (contracts, receipts, checks, inventory of purchased goods/materials). Ensure that information needed for auditing purposes is easily available;
- Maintain a procurement plan, participate in conducting procurement tenders and prepare procurement contracts for goods and services;
- Control project assets, maintain office equipment and keep inventory list;
- Secure the maintenance of the project vehicle and keep track of log book;
- Provide assistance in the HR related project matters throughout the entire recruitment process, contracting and timely disbursement of pending payments (salaries, DSAs, etc.) according to the existing contracts, monitor/maintain staff leave records; ensure that contracts are duly renewed. Ensure that recruitments are carried out in compliance with appropriate UNDP procedures.
- Make necessary logistical arrangements for the international and national experts missions.
- Prepare Requests for Direct Payment and ensure provision of appropriate supporting documentation.

Required Qualifications:

Education:

- Bachelor's degree or higher education in finances, business administration of other relevant field.
- Good secretarial skills
- Minimum three years of relevant experience
- Experience working with international and national institutions, donor organizations NGOs and academic circles working on environmental matters
- High level of flexibility
- Have good communication skills and experience in coordinating project activities;
- Fluency in Georgian and English languages; good writing skills.

Competencies

Corporate Competencies:

- Demonstrates integrity by modeling the UN's values and ethical standards
- Promotes the vision, mission, and strategic goals of UNDP
- Displays cultural, gender, religion, race, nationality and age sensitivity and adaptability

Functional Competencies:

- Corporate Responsibility & Direction:
 - Good interpersonal skills, client-orientation, and ability to work in a team.
 - Ability to work under pressure with several tasks and various deadlines
 - Actively generates creative, practical approaches and solutions to overcome challenging situations
 - Communication:
 - Demonstrates strong written and oral communication skills.
 - Experience in the usage of computers and office software packages, experience in handling of web based management systems
 - Excellent writing, oral, communications and presentation skills
 - Usage of Information Technology effectively as a tool and resource
-

**EUROPEAN UNION CONTRIBUTION AGREEMENT
WITH AN INTERNATIONAL ORGANISATION
ENPI/2012/303-093**

(the "Agreement")

The European Union, represented by the European Commission (the "Contracting Authority")

of the one part,

and the United Nations Development Programme (UNDP), with its Head Office at United Nations Plaza 1 – 10017 New York – United States of America, represented by its Office in Brussels – Rue Montoyer 14, B-1000 Brussels, Belgium (the "Organisation")

of the other part,

(Individually a "Party" and collectively the "Parties"), have agreed as follows:

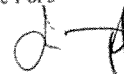
Special Conditions

Article 1 - Purpose

- 1(1) The purpose of this Agreement is a contribution by the Contracting Authority for the implementation of the action entitled: "Clima East: Supporting climate change mitigation and adaptation in Russia and Eastern Neighbourhood countries through pilot projects" (the "Action") as described in Annex I.
- 1(2) The Organisation will be awarded the contribution on the terms and conditions set out in this Agreement, which complies with the provisions of the Financial and Administrative Framework Agreement between the European Community, represented by the Commission of the European Communities and the United Nations, and consists of these special conditions (the "Special Conditions") and their annexes.
- 1(3) The Organisation accepts the contribution and undertakes to do everything in its power to implement the Action under its own responsibility.
- 1(4) The Action is a Joint Management Action for all purposes of this Agreement.
- 1(5) The Action is not a Multi-donor Action for all purposes of this Agreement.

Article 2 – Entry into force, Implementation Period and Execution Period

- 2(1) This Agreement shall enter into force on the date when the last of the two Parties signs.
- 2(2) The implementation period of this Agreement (the "Implementation Period") will begin on:
- the day following that on which the last of the two Parties signs
- 2(3) The Implementation Period, as laid down in Annex I, is 48 months.



2(4) The execution period of this Agreement shall start at the entry into force of this Agreement as provided for in Article 2(1) and shall end at the moment when final payment is paid by the Contracting Authority in accordance with Article 17 of Annex II or when the Organisation repays any amounts paid in excess of the final amount due pursuant to Article 18 of Annex II. In cases where there is no final payment by the Contracting Authority or final repayment by the Organisation, the end of the execution period shall be the end date referred to in Article 12.5 of Annex II.

Article 3 - Financing the Action

- 3(1) The total cost of the Action eligible for financing by the Contracting Authority is estimated at EUR 11,000,000 as set out in Annex III.
- 3(2) The Contracting Authority undertakes to finance a maximum of EUR 11,000,000, equivalent to 100% of the estimated total eligible cost specified in paragraph 1; the final amount will be established in accordance with Articles 14 and 17 of Annex II.
- 3(3) Pursuant to Article 14.4 of Annex II, 7% of the final amount of direct eligible costs of the Action to be reimbursed by the Contracting Authority to the Organisation in accordance with Articles 14 and 17 of Annex II, may be claimed by the Organisation as indirect costs.
- 3(4) Pursuant to Article 14.3 of Annex II, the Regulation under which this Agreement is financed excludes financing of taxes, including VAT, in the case the Organisation can show it cannot reclaim.

Article 4 - Narrative and financial reporting and payment arrangements

- 4(1) Narrative and financial reports shall be produced in support of payment requests, in compliance with Articles 2 and 15.1 of Annex II.
- 4(2) Payment will be made in accordance with the following schedule:

Pre-financing	EUR 8,800,000
Interim payments	EUR 2,050,000
(subject to the provisions of Annex II)	
Forecast final payment	EUR 150,000
(subject to the provisions of Annex II)	

Article 5 - Contact addresses

Any communication relating to this Agreement shall be in writing, shall state the number and title of the Action, and shall use the following addresses:

For the Contracting Authority:

Payment requests and attached reports, including requests for changes to bank account arrangements shall be sent to:

European Commission, DG Development & Cooperation, for the attention of unit F5, J-54 03/229, B-1049 Brussels

Copies of the documents referred to above, and correspondence of any other nature, shall be sent to:

Contract ENPI/2012/303-093
CTR1472411[1].doc

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European Commission, DG Development and Cooperation, for the attention of unit F3, J-54 06/205,
B-1049 Brussels.

For the Organisation:

UNDP Brussels Office, 14 Rue Montoyer, 1000 Brussels

Copies of correspondence shall be sent to:

Maxim Vergeichik, UNDP Regional Support Centre for Europe and CIS, Grosslingova 35, 81109
Bratislava, Slovakia.

Article 6 - Annexes

6(1) The following documents are annexed to these Special Conditions and form an integral part of
the Agreement:

Annex I: Description of the Action

Annex II: General Conditions applicable to European Union contribution agreements with
international organisations

Annex III: Budget for the Action

Annex IV: Financial identification form

Annex V: Standard request for payment


6(2) In the event of a conflict between the provisions of the present Special Conditions and any
Annex thereto, the provisions of the Special Conditions shall take precedence. In the event of a
conflict between the provisions of Annex II and those of the other annexes, the provisions of
Annex II shall take precedence.

Done in Brussels, in three originals in the English language, two for the Contracting Authority and
one for the Organisation.

For the Organisation

Name: Antonio Vigilante

Position: Director, UNDP Office Brussels

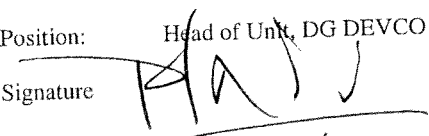
Signature: 

Date: 04 DEC. 2012

For the Contracting Authority

Name: Philip Mikos

Position: Head of Unit, DG DEVCO F3

Signature: 

Date: 22/11/12

ANNEX IV. CALCULATION OF CARBON MITIGATION AS A RESULT OF PROJECT ACTIVITIES IN THE TERRITORY

Soils

All types of soils represented in Dedoplistskaro region belong to High Activity Clay (**HAC**): vertisols, calcic vertisols, natricvertisols, gleyicvertisols, calcariccambisols and calcarickastanozems, calcic kastanozems, calcariccambisols and calcickastanozems, gypsisols, solonetz, solonchaks, calcaricfluvisols and rock outcrops and leptosols. Based on this information 38 tonnes C per ha for 0-30 cm depth was applied for SOC_{REF} .

Climate in Dedoplistskaro is dry sub-tropical. Since table 3.4.4. (IPCC, GPG) does not consider such a category, the dry tropical climate was considered as the most acceptable one for Georgia.

Classification of pastures (IPCC category - grassland)

- **good condition (I)** – the structure of vegetation is not destroyed, the natural diversity is maintained, the degradation of topsoil is not expressed, or expressed slightly
- **moderate condition (II)** – the structure of vegetation is destroyed considerably, the degradation of vegetation is expressed, however, the ecological balance can be restored easily
- **heavy condition (III)** – the structure of vegetation is destroyed considerably. Various stages of degradation are expressed; the topsoil erosion has been started
- **critical condition (IV)** - the vegetation cover is in the deep process of degradation. The beginning of retrogressive (irreversible) process is evident. The considerable erosion of topsoil is expressed.

Tier 1 approach has been applied for calculation of carbon losses and gains from pastures. According to this approach the changes in living biomass (above ground and below ground) and dead organic matter is considered as zero. Organic soils do not exist in Dedoplistskaro region. Therefore, mineral soils are estimated as the main pool for assessment of grassland (pastures) category.

Equation 3.4.8 (IPCC GPG) has been applied for the assessment of carbon mitigation (storage) potential of the pastures considered in the project.

$$CGG_{Mineral} = [(SOC_0 - SOC_{(0-T)}) * A] / T$$

$$SOC = SOC_{REF} * F_{LU} * F_{MG} * F_I$$

Where:

$\Delta CGG_{Mineral}$ = annual change in carbon stocks in mineral soils, tonnes C yr⁻¹

SOC_0 = soil organic carbon stock in the inventory year, tonnes C ha⁻¹; For this particular case 2031 (20 years default) is the year considered for assessment of carbon storage.

$SOC_{(0-T)}$ = soil organic carbon stock T years prior to the inventory, tonnes C ha⁻¹; For this particular case 2011 is considered as baseline.

T = inventory time period, yr (default is 20 yr)

A = land area of each parcel, ha; For this particular case **2,259 ha** severely degraded and **1,805 ha** moderately degraded pastures are estimated in the territory of Vashlovani PA. In addition **4,650 ha** of moderately degraded alternative pastures are estimated.

SOC_{REF} = the reference carbon stock, tonnes C ha⁻¹; For this region it was considered that soils belong to HAC and LAC types according to the Table 3.4.4 (IPCC, GPG). Climate in this region is close to dry tropical climate. SOC_{REF} applied for this particular region equals to **38 tonnes C per ha** for 0-30 cm depth.

F_{LU} = stock change factor for land use or land-use change type, dimensionless; For this particular case this value equals to 1 (see Table 3.4.5, IPCC, GPG) as far as considered territories are permanent grasslands.

F_{MG} = stock change factor for management regime, dimensionless; For severely degraded pastures in the territory of Vashlovani PA the value applied is **0.7** and for moderately degraded pastures **0.97** (see Table 3.4.5,

IPCC, GPG). After the project implementation this parameter equals to 1.17 for dry tropical climatic region of Dedoplistskaro.

F_i = stock change factor for input of organic matter, dimensionless; As far as project considers to implement all types of available measures and sustainable management practice **1.11** value is applied for this parameter. (see Table 3.4.5, IPCC, GPG).

Annual change in carbon stocks in severely degraded pastures in the territory of Vashlovani PA.

$$\begin{aligned} SOC_{2011} &= 38 * 1 * 0.7 * 1 = 26.6 \\ SOC_{2031} &= 38 * 1 * 1.17 * 1.11 = 49.4 \\ CGG_{\text{Mineral}} &= [(49.4 - 26.6) * 2259] / 20 = \mathbf{2,275} \text{ tonnes C yr}^{-1} \\ \text{Total storage for 20 years} &\text{ equals to } \mathbf{51,505} \text{ tonnes C.} \end{aligned}$$

Annual change in carbon stocks in moderately degraded pastures in the territory of Vashlovani PA.

$$\begin{aligned} SOC_{2011} &= 38 * 1 * 0.97 * 1 = 36.9 \\ SOC_{2031} &= 38 * 1 * 1.17 * 1.11 = 49.4 \\ CGG_{\text{Mineral}} &= [(49.4 - 36.9) * 1805] / 20 = \mathbf{1,128} \text{ tonnes C yr}^{-1} \\ \text{Total storage for 20 years} &\text{ equals to } \mathbf{22,563} \text{ tonnes C.} \end{aligned}$$

Annual change in carbon stocks in moderately degraded alternative pastures. Alternative pastures are conservatively considered as moderately degraded. According to the shepherds survey pastures in the Vashlovani PA are in much better conditions than alternative pastures. However, professional assessment of pastures (considered by shepherds as good) has concluded that pastures are in critical conditions and should be considered as severely degraded.

$$\begin{aligned} SOC_{2011} &= 38 * 1 * 0.97 * 1 = 36.9 \\ SOC_{2031} &= 38 * 1 * 1.17 * 1.11 = 49.4 \\ CGG_{\text{Mineral}} &= [(49.4 - 36.9) * 4650] / 20 = \mathbf{2,906} \text{ tonnes C yr}^{-1} \\ \text{Total for 20 years} &\text{ equals to } \mathbf{58,125} \text{ tonnes C.} \end{aligned}$$

In total as a result of full implementation of this project **132,193** tonnes C will be stored by Vashlovani and alternative pastures. This amount is equivalent of **484,708** t CO₂.

Liming is considered as one of the measures for rehabilitation of pastures. This was practice in Soviet time (before 1990) in this region but liming was mainly applied to croplands. Emission from liming process will be dedicated to this estimated stored value based on the amount of lime to be used for the rehabilitation of soil.

Annex V. Total budget and work-plan

Award ID: 00071514
 Award Title: Sustainable management of pastures in Georgia to demonstrate climate change mitigation and adaptation benefits and dividends for local communities
 Project ID: 00084937
 Project Title: Sustainable management of pastures in Georgia to demonstrate climate change mitigation and adaptation benefits and dividends for local communities
 Executive Agency: UNDP-DIM (Direct execution)

Output	KEY ACTIVITIES	Responsible Party	PLANNED BUDGET (in USD)														
			Fund	Donor	Budget Account	Budget Description	2,013.00	2,014.00	2015	2016	GRAND TOTAL						
Sustainable Pastures Management	Activity 1 - Implementation of sustainable land use practices in Dedoplistskaro region, including partial rehabilitation and restoration of migratory routes	UNDP	30079	EU	71200	International Consultants	-	19,284.60	20,000.00			39,284.60					
			30079		71400	Contractual Service - Indivd	23,000.40	13,747.99			36,748.39						
			30079		71300	Local Consultants	2,183.10	34,316.90	20,000.00	6,500.00	63,000.00						
			30079		71600	Travel	4,404.00	5,445.00	4,555.00	586.00	15,000.00						
			30079		72800	Information Technology Equipment		30,404.00			30,404.00						
			30079		72400	Communication& Audio/Visual Equipment		3,763.10	5,000.00		8,763.10						
			30079		74100	Professional Services	700.00	7,300.00			8,000.00						
			30079		72100	Contractual Services - Companies	15,775.00	132,648.02	82,251.00	42,893.09	273,567.11						
			30079		74200	Audio/Visual Print, Product Costs	236.90	1,000.00			1,236.90						
			30079		72500	Supplies	728.30	2,271.70			3,000.00						
					Sub-Total for ACTIVITY 1				47,027.70	250,191.31	131,806	56,726	485,751.00				
			Sustainable Pastures Management		Activity 2 - Implementation of the pastures management plan and development of degraded pastures rehabilitation plan for territories within the Vashlovani PAs	UNDP	30079	EU	71200	International Consultants		17,000.00				17,000.00	
							30079		71400	Contractual Service - Indivd			30,000.00	10,000.00	40,000.00		
							30079		72100	Contractual Services - Companies	31,663.42	92,879.10	65,000.00	25,834.09	215,396.61		
							30079		71300	Local Consultants	1,830.00	24,645.99	6,524.01		33,000.00		
30079	71600	Travel					6,323.39				6,323.39						
30079	72400	Communication& Audio/Visual Equipment		3,300.20			9,299.80				12,600.00						
30079	72500	Supplies		940.00			3,060.00				4,000.00						
30079	74100	Professional Services		2,999.90			1,000.10				4,000.00						
04000	71400	Contractual Services - Companies		6,183.00							6,183.00						
	Sub-Total for ACTIVITY 2								46,936.52	154,214.38	101,524	35,834	338,509.00				
Sustainable Pastures Management	Activity 3 - Livelihoods of farmers are improved and sustainability is ensured	UNDP		30079			EU		71200	International Consultants		12,000.00				12,000.00	
				30079					71300	Local Consultants		40,000.00	15,000.00		55,000.00		
				30079					71600	Travel	2,672.00				2,672.00		
				30079					72100	Contractual Services - Companies	6,000.00	35,840.00	72,052.02		113,892.02		
				30079					72800	Information Technology Equipment	11,946.30				11,946.30		
			30079	72500	Supplies	1,700.00		328.00			2,028.00						
			30079	74100	Professional Services	265.12		2,009.16			2,274.28						
			74200	Audio/Visual Print, Product Costs				8,952.52			8,952.52						
				Sub-Total for ACTIVITY 3					4,372.00	20,283.46	114,840	163,005	302,500.00				
			Sustainable Pastures Management	Activity 4 - Project Management	UNDP	04000		TRAC	71400	Contractual Services - Indivd		5,951.15	6,125.00			12,076.15	
						30079			74500	Miscellaneous Expenses	540.85	775.00	600.00	1,500.00	3,415.85		
						30079			71400	Contractual Service - Indivd	8,633.00	29,213.72	70,011.16	70,000.00	177,857.88		
									Sub-Total for ACTIVITY 4				265.12	35,939.87	76,736	76,725	198,840.00
									TOTAL GMS 7%				9,438.97	31,912.19	26,219.55	25,842.65	90,909.00
									TOTAL EU				114,709.79	492,541.21	451,126	358,132	1,416,509.00
	TOTAL UNDP TRAC								107,965.94	485,815.06	444,401	351,407	1,389,609.00				
	TOTAL								6,723.85	6,726.15	6,725.00	6,725.00	26,900.00				