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ANNEX I

of the Commission Implementing Decision amending Implementing Decisions C(2017)8795, C(2018)5873, C(2019)8176, and C(2020)5471 on the financing of the annual action programmes for 2017 (part 2), 2018 (parts 1 and 2), 2019 (parts 1 and 2), and 2020 (part 1 and 2) in favour of Afghanistan from the general budget of the Union

Action Document for Addressing Climate Change in Afghanistan through sustainable energy and ecosystem management

INFORMATION FOR POTENTIAL GRANT APPLICANTS

WORK PROGRAMME FOR GRANTS

This document constitutes the work programme for grants in the sense of Article 128(1) of the Financial Regulation (Regulation (EU, Euratom) No 966/2012) in the following sections concerning grants awarded directly without a call for proposals: 5.3.1. *Grant: direct award to "Improve participatory management and efficiency of rangelands and watersheds" (direct management)*

1. Title/basic act/ CRIS number	Addressing Climate Change in Afghanistan through sustainable energy and ecosystem management; CRIS number: ACA/2017/039-245 and Financed under the Development Cooperation Instrument	
2. Zone benefiting from the action/location	Afghanistan The action shall be carried out at the following location: North Eastern region - Panj-Amu River basin	
3. Programming document	Multi-Annual Indicative Programme 2014 – 2020 for Afghanistan	
4. Sector of concentration/ thematic area	MIP - Sector 1: Agriculture and Rural Development and Cross cutting priorities	DEV. Aid: YES
5. Amounts concerned	Total estimated cost: EUR 21 400 000 Total amount of EU budget contribution EUR 19 500 000.	
6. Aid modality(ies) and implementation modality(ies)	Project Modality Direct management grants direct award: Wildlife Conservation Society (WCS) and Aga Khan Foundation (AKF).	

7 a) DAC code(s)	43040 – Rural Development 41010 – Environmental policy and administrative management 23210 – Energy generation, renewable sources– multiple technologies			
b) Main Delivery Channel	11000 and other implementing partners			
8. Markers (from CRIS DAC form)	General policy objective	Not targeted	Significant objective	Main objective
	Participation development/good governance	<input type="checkbox"/>	X	<input type="checkbox"/>
	Aid to environment	<input type="checkbox"/>	<input type="checkbox"/>	X
	Gender equality (including Women In Development)	<input type="checkbox"/>	X	<input type="checkbox"/>
	Trade Development	X	<input type="checkbox"/>	<input type="checkbox"/>
	Reproductive, Maternal, New born and child health	X	<input type="checkbox"/>	<input type="checkbox"/>
	RIO Convention markers	Not targeted	Significant objective	Main objective
	Biological diversity	<input type="checkbox"/>	<input type="checkbox"/>	X
	Combat desertification	<input type="checkbox"/>	<input type="checkbox"/>	X
	Climate change mitigation	<input type="checkbox"/>	<input type="checkbox"/>	X
	Climate change adaptation	<input type="checkbox"/>	<input type="checkbox"/>	X
9. Global Public Goods and Challenges (GPGC) thematic flagships	Global Climate Change Alliance Plus (GCCA+), Sustainable energy and B4Life.			
10. SDGs	Main SDG 13 Take urgent action to combat climate change and its impacts. SDG 15 Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss. SDG 7 Ensure access to affordable, reliable, sustainable and modern energy for all. Secondary SDG 2 End hunger, achieve food security and improved nutrition and promote sustainable agriculture.			

SUMMARY

Afghanistan is internationally recognised as one of the most vulnerable countries to climate changes in urgent need for private-public investment and innovative actions aiming at increased climate resilience of communities across the country. In particular, the North-Eastern region is considered amongst the most vulnerable and a national priority for action by the relevant Government authorities as well as international specialised agencies. Environmental impact from the target area goes well beyond Afghanistan borders as the Panj-Amu is a major water

provider to millions of people in Tajikistan, Uzbekistan and Turkmenistan. The area targeted by the proposed programme has suffered from long-lasting armed conflict and, with the Central Region, has registered the highest incidence of poverty in Afghanistan, with a negative growth in 2015 also due to the impact of climate related natural disasters.

The **main objective** of this programme is improved resilience to climate change of communities and the ecosystems in the Panj-Amu River Basin and the sustainability of their use for the benefit of rural communities.

The **specific objectives** are:

1. Conservation of biodiversity and increased ecosystems and community resilience through improved natural resources management and climate change adaptation measures in upper watersheds of the Panj-Amu River Basin;
2. Sustainable rural development and protection of ecosystems and biodiversity through increased renewable energy generation and distribution.

The proposed action follows an integrated approach, (i) reinforcing ongoing actions in support of integrated watershed management, including the development of economical viable value chains based on forestry and non-forest products, (ii) contributing to improved climate resilience, access to sustainable rural energy and local employment opportunities in line with the government priorities, thereby (iii) addressing also present root causes of migration. Sustainability will be ensured through support and capacity building of Community Development Councils (CDCs) for continued ecosystem protection and afforestation interventions and cost-covering management of energy generation and distribution. Work with the CDCs will also have a strong focus on gender.

This action will be implemented in direct management with Wildlife Conservation Society (WCS) and Aga Khan Foundation (AKF). The selected implementing partners have proven extensive experience in Afghanistan, having provided support to Government institutions in the field of intervention and implemented actions at local level in the region of proposed activities for more than two decades.

1 CONTEXT

1.1 Country/Regional context/Thematic area

Afghanistan remains a fragile state even after a decade of progress. The country ranks 171 of the 188 nations in UN Human development index. The underestimated security and economic impact of the 2014 international military drawdown and an intensified insurgency lead to large-scale displacement and record numbers of civilian casualties. The country suffers of high and widespread poverty, particularly in the North-Eastern region where the situation is worsened by remoteness, high frequency of natural disasters and harsh winters. In rural areas low productivity and recurrent climate-induced shocks perpetrate poverty, rendering these areas susceptible to high levels of migration, particularly among youth, recruitment by the insurgency and increased level of illicit economy. Moreover, Afghanistan ranks among the world's most vulnerable countries to the impact of climate change¹ in urgent need for investments addressing climate change threats (17th most vulnerable, and the 11th least ready country in the world to face challenges of climate changes). The incidence of extreme weather events - including heat waves, floods and droughts, reduced snow capping and subsequent glacial lake outflows - is likely to increase in frequency and intensity. Since the majority of the population relies directly

¹ 2016 Maplecroft Report - <https://maplecroft.com/>

or indirectly on natural resources for their livelihoods, these changes pose an unprecedented threat to the foundation of the country's fragile economy, stability and food security.

The North-Eastern region already registers significant changes of water flow dynamics in the tributaries of the Amu Darya River which originates from the Wakhan District and forms much of the border between Tajikistan and Afghanistan. The melting of the glaciers in this region combined with the heavy rains during the 2014 spring and summer seasons directly resulted in that year's heavy flooding. Furthermore, this region has been particularly vulnerable to climate change, as indicated by a substantial increase in precipitation during the winter season of approximately 10%, whereas during the summer season precipitation showed a significant decrease up to 20%².

Agriculture, largely dependent upon irrigation, is essential in Afghanistan as it generates 50% of GDP and employs two-thirds of the population: climate change variability and risk will impact directly the sector. Variability in water supply for irrigation due to droughts and floods affects agricultural production; current lack of resources to prepare and adapt to climate change impacts and weak adaptive capacity of farmers using rain-fed arable farming increases their vulnerability. The reduction of cultivated land due to increased erosion and the deficiency of energy in rural areas are two of the major gaps that agriculture is experiencing. Due to the country's high population growth rate, agriculture needs to grow faster than its current ratio to improve rural incomes and standards of living. The Badakhshan District is consistently amongst the more food insecure according to the IPC (Integrated Phase Classification) methodology. In addition, between 1990 and 2000, Afghanistan lost an average of 29,400 hectares of forest per year.

As a result of these factors, environmentally induced conflicts about the distribution of natural resources, fertile lands, grazing grounds and water are likely to expand if measures are not taken. Actions in upper and lower catchments to reduce soil erosion, water runoff and to maintain and increase available land, vegetation cover, fodder and biodiversity are urgently required and will contribute to increased water availability for irrigation and renewable energy. Access to renewable energy will also reduce pressures on natural resources, especially fuelwood, actually representing the main source of energy in rural areas thus benefiting directly women and childhood who are in charge of harvesting. Intensifying the use of renewable energy in post-harvest production and storage (packing, dry and cold storage) and processing (drying of products, cereal milling, nuts value chain, edible oil extraction) will increase productivity, employment and food security in rural areas with a positive impact on livelihood and a potential reduction of internal displacement.

Government authorities as well as international specialised agencies consider the North-East region amongst the most vulnerable and a national priority for action as the connection between the threat to natural resources from climate changes and the impact on livelihood is already visible. These watersheds and rangelands are essential as the Panj-Amu impact on ecosystems, livelihood and economic opportunities for millions of people in Afghanistan and beyond as a major provider of water in Tajikistan, Uzbekistan and Turkmenistan all the way to Aral Sea. To sustain key ecosystem services and goods provided by these "Water towers", and build climate change resilience in these systems, urgent preventive measures need to be taken, protective and productive reforestation efforts, rangeland management and provision of renewable energy alternatives to reduce pressure on natural resources. Early warning systems focusing on the vulnerability of agro-pastoralist communities could be considered as a mitigation measure to contribute in building resilience.

² [Cordex Regional Climate model](https://rcmes.jpl.nasa.gov/content/cordex) - <https://rcmes.jpl.nasa.gov/content/cordex>

1.1.1 Public Policy Assessment and EU Policy Framework

Afghanistan has initiated a number of steps to promote sustainable development. This programme is relevant to the Agenda 2030. It contributes primarily to the achievement of SDG 13 "Take urgent action to combat climate change and its impacts", SDG 15 "Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss", SDG 7 "Ensure access to affordable, reliable, sustainable and modern energy for all" and SDG 2 "End hunger, achieve food security and improved nutrition and promote sustainable agriculture".

National development policies, plans, and legal frameworks address environmental challenges, disaster risk reduction, food and water security, protection of forest and rangelands, and biodiversity conservation, all of which have clear relevance to climate change adaptation and/or mitigation. The Afghanistan National Peace and Development Framework (ANPDF) emphasizes i) the risks of natural resources degradation, climate change impact on snowpack melting and the need to expand agroforestry and reforestation to support environmental conservation and income generation for farmers (supported by Output 1, 2 of this Action); ii) the policy focus for rural areas through the expansion of services and explicitly rural energy and electricity especially through renewables that could contribute to improve cold and dry storage facilities for value chains in agriculture (supported by Output 3 of this Action). These elements are clearly stated in the National Priority Program 2 - Citizens' Charter, 5 - Comprehensive Agricultural Development Program and 8 - Energy.

The proposed interventions are fully consistent with major Afghanistan policies and plans, and represent a major contribution to the effective implementation of the country Nationally Determined Contribution (NDC) submitted to the United Nations Framework Convention on Climate Change (UNFCCC) both for adaptation (supported by Output 1, 2), i.e. promoting economic development and sustainable rural livelihoods through sustainable management of natural resources and increase access to modern forms of efficient and sustainable energy services and for mitigation (protecting and increasing forest, rangelands, afforestation and reforestation) and energy production (hydropower, solar, wind) (supported by Output 3).

The National Comprehensive Agriculture Development Priority Program includes climate-sensitive natural resources management in order to increase reforestation, conserve soil, water, protect rangeland and environment improving farmers' income generation and women economic empowerment. This programme will also contribute to the implementation of the National Natural Resource Management Strategy 2017-2021 and the Afghanistan National Biodiversity Strategic Action Plan (NBSAP) to improve biodiversity conservation (supported by Output 2).

Afghanistan's long-term climate change strategy supports the development of renewable energy sources having high potential to expand off-grid coverage providing electricity for economic activities in rural communities that could generate employment in post-harvest activities. In addition, the Strategy & Guidelines for Implementation of Afghanistan National Renewable Energy Policy (supported by Output 3), launched by Ministry of Energy and Water in 2015, confirms the Government decision to implement the NDC proposal to develop a low carbon energy sector. Government has just approved the strategy liberalising energy production, transport and marketing.

The Ministry of Energy and Water has developed the first Renewable Energy Policy for Afghanistan to mainstream renewable energy projects in the national development plans (supported by Output 3). Afghanistan intends to pursue this objective by harnessing power from renewable resources such as hydropower. It needs to do so with the full participation and

collaboration of government agencies, the donor community, non-governmental organizations (NGOs), the private sector and, not least, the beneficiary communities themselves. The policy will provide an enabling environment for stakeholders and donors encouraging private sector investment to develop a rural energy technology.

This programme is aligned with the EU's Multiannual Indicative Programme (MIP) 2014-2020, focal sector (1) Agriculture and Rural Development, the MIP Cross cutting priorities and EU's commitments to support the SDGs: planet primarily but also prosperity and people.

This Action represents a concrete action following the European Parliament approval of the ratification of the Paris Agreement by the European Union and it will contribute to EU's commitment of spending at least 20% of its budget for 2014-2020 on climate-related activities. Environmental integration promoting sustainable development is an obligation under the EU Treaty. This Action is an opportunity for the EU to promote global efforts to combat climate change and environmental degradation in Afghanistan improving livelihood through better management of rangelands and watersheds, increased access to renewable energy and job creation. EU confirms long-standing support to the sustainable protection of water, soil and biodiversity in one of the major Central Asia's Water basins, the Panj-Amu.

This Action is an important EU contribution to the implementation of Afghanistan NDC and is consistent with the EU-GCCA+ priorities, namely mainstreaming climate change in national and local policy, building local climate change capacity and creating knowledge to support innovative and effective climate change adaptation and mitigation practices. The program will also contribute to the EU Climate Diplomacy Action Plan efforts and to the EU's Gender Action Plan 2016-2020 in cooperation with our Member States. Finally, robust gender and Rights-Based Approach (RBA) baselines and milestones will be refined during the inception phase.

1.1.2 Stakeholder analysis

The main national actors addressing climate change, natural resource management and rural energy development are the National Environment Protection Agency (NEPA), the Ministry of Agriculture, Irrigation and Livestock (MAIL), the Ministry of Energy and Water (MEW) and the Ministry of Rural Development (MRRD). These national institutions have developed policy options and actions in the field. A real willingness exists to implement national strategies for adaptation and mitigation of climate change, despite of weaknesses in terms of capacities especially at the local level. These actors have been consulted extensively during the identification and formulation and a close collaboration amongst these institutions will be ensured during implementation.

The project will contribute to reinforce capacities and awareness of government officials from these institutions at the national level and at the local level. This will include capacity building of national and local level authorities on gender sensitivity, mainstreaming and the RBA approach. The National Environment Protection Agency (NEPA) will be supported to integrate climate change in forestry, watershed, rangeland and renewable energy interventions, increasing climate resilience of the national ecosystem management practice.

The direct target groups of the project are members of local communities in the Afghanistan North-Eastern rural areas, including smallholders, farmers and livestock herders and their families. The project will have a particular focus on needs of women, children and vulnerable groups. They will benefit from the transfer of knowledge and technology (agro-forestry, access to renewable energy), from the establishment and management of planted forests, nurseries, planting techniques; the harvesting and marketing of wood and Non-Wood Forest Products (NWFPs) utilizing access to renewable energy at community level. Women and local youth will be direct beneficiaries as they bear most of the burden of harvesting of fuelwood and will

be involved in afforestation, rangeland and energy scheme management. Involvement of stakeholders has started during the identification and formulation phases and the evaluation of the 10 years EU support to the Panj-Amu Integrated Water Resources Management. Support and capacity building of Community Development Councils (CDCs) will ensure continued ecosystem protection and afforestation interventions and cost-covering management of energy generation and distribution. Capacity building of CDCs and a strong focus on gender will contribute to the sustainability of the present action. The program will immediately support local development and, in the medium term, increase mitigation and adaptation, in the North-Eastern region.

1.1.3 Priority areas for support/problem analysis

Based upon recent climate change projections and observed trends, Afghanistan's environment will experience considerable changes over the remainder of this century. Projections under the Special Report on Emissions Scenarios (SRES) A2 scenario predict a strong increase in mean annual temperature for the Panj-Amu River Basin: by 2030s a warming of 2 degrees, by 2060s 4 degrees and by 2090s 6 degrees³. Since 1960 mean annual rainfall in Afghanistan has decreased by 2% per decade, with decreases of 6.6% per decade during spring. Under the SRES A2 scenario further decreases of precipitation in the Panj-Amu River Basin, compared to the mean of 1970-1999, of 3% by 2030s, 8% by 2060s and 12% by 2090s are predicted⁴. Much of this decrease is expected during the spring months when the main plant growth takes place. The decrease of precipitation combined with temperature increase and the related evapotranspiration will negatively affect the entire hydrological cycle from snow coverage and availability of irrigation water to moisture stored in the soil, resulting in reduced agricultural productivity and in changes of ecosystems. The ongoing and predicted climate change exacerbates the existing land-use and natural resources management problems in Afghanistan and the program region, causing ecosystem degradation, biodiversity loss, reduced ecosystem services, income insecurity, less livelihood opportunities and higher disaster risk, resulting in poverty and migration pressure. The upper watersheds of the Panj-Amu Basin are the main "Water tower" to millions of people, thus climate change and unsustainable use of ecosystems heavily impact people beyond the region.

In the Panj-Amu River Basin rangelands, mixed with shrub and woodlands, are the dominating ecosystem type. Biomass from these ecosystems is the main energy source for heating and cooking in rural households. Growing livestock numbers, in many areas beyond the carrying capacity, and unsustainable grazing practices prevent regeneration of harvested biomass and cause the degradation of vegetation, soil compaction, reduced ground water replenishment and increased erosion. Degraded rangelands and woodlands with deteriorated biodiversity are less resilient and lack the potential of adaptation of ecosystems and provide less land-use options under changing climate conditions. Furthermore in this region, the majority of arable lands are rain-fed (*la'imi*), often on sloping lands. Small plots in mountain valleys and larger areas in the lower parts are irrigated. Rain-fed farming is prone to climate change and with reduced spring rainfall and higher aridity cereal yields drop and become unreliable. Changing precipitation patterns, accelerated melting of glaciers and ecosystem degradation in the upper watersheds affect larger irrigation schemes.

³ Landell Mills 2016: Feasibility Study for the Panj-Amu River Basin Project (DCI-ASIE/2015/361-001) Draft Final Report Supplementary Document 13 - Climate Risk Assessment and Management Report, p. 5

⁴ Landell Mills 2016: Feasibility Study for the Panj-Amu River Basin Project (DCI-ASIE/2015/361-001) Draft Final Report Supplementary Document 13 - Climate Risk Assessment and Management Report, p. 7

Unsustainable rural energy use is an important factor of ecosystem degradation. Harvested trees, shrubs and subshrubs include forage plants for livestock and wildlife. Burning of manure reduces the fertility of agricultural lands. Absence of renewable and sustainable electricity access is one of the main development barriers in rural areas. While electricity from small renewable sources is still insufficient to replace biomass as energy source for heating and cooking, it improves the rural standard of living, allows for social and educational activities and is a prerequisite for non-agricultural income generation and value chains.

The upper watersheds of the Panj-Amu River Basin due to climate position and naturally scarce vegetation cover are prone to natural disasters like flash floods and landslides. Degradation of rangelands and woodlands and their transformation into arable fields have accelerated these risks and climate change contributes to more frequent disastrous events.

These combined issues negatively impact agricultural production, food security, economic activity, health, and infrastructure while increasing migration. Destructive impacts on livelihoods particularly affect the vulnerable rural population, especially women and youth. Under conditions of food shortage women and children are most prone to malnutrition. They bear most of the burden of collecting fuel and have to walk longer and longer distances for this necessity. In cold winters acute shortage of heating energy forces poor people to cut fruit and nut trees from orchards, thus causing further shortage of valuable food. Lack of electricity seriously hampers education opportunities and access to information, which are key for the development of perspectives for the younger generation, especially for girls, for empowerment of women, for health care and finally for a balanced demographic trend.

Despite recognition by the Government, climate change adaptation tools such as climate data at various spatial and temporal scales, climatic data inventories and climate adaptive management plans remain at an infancy state and their implementation is very limited. The present program will therefore apply an integrated approach including i) climate change vulnerability assessment and climate change monitoring, planning, capacity development and knowledge management; ii) enhanced management of agriculture, ecosystems and associated biodiversity for conservation and use of their adaptation capacity to climate change, including the balancing of landscape water household and disaster prevention; iii) improved supply and increased efficiency of rural energy in form of renewable and sustainable electricity (hydropower, solar and wind); altogether contributing to income generation, sustainable improved livelihoods and reduced migration pressure from rural areas. This program intervention focus on the Panj-Amu River Basin based on environmental and socio-economic analysis of this area.

2 RISKS AND ASSUMPTIONS

Risk	Risk Level H/M/L	Mitigating Measure
Low institutional capacity at national and local level hampering project progress.	M	Capacity building activities will support the gradual strengthening of technical and management skills of key institutional stakeholders.
Reluctance of land-users to accept and adopt new approaches and technologies for more sustainable use of ecosystems and conservation of biodiversity.	M	Communities will be involved in the development and implementation of interventions ensuring interest through practical demonstrations, thus ensuring the sustainable satisfaction of their livelihood interests in the frame of the capacity of the landscape; awareness on sustainability and limits of nature resource use as

Risk	Risk Level H/M/L	Mitigating Measure
		well as alternative income generation will be developed.
Insecurity hampering service delivery in part of the country.	M	A conflict sensitive approach has been applied, selecting a range of intervention areas with low current and predictable security risks, and involving experienced partners already working with farmers, communities, private sector and local authorities adopting a flexible approach in this complex environment.
Corruption may present a challenge for the implementation of the program interventions.	M	Implementing modality ensures a strong fiduciary management and guarantees financial integrity, technical oversight, maintaining community ownership and preventing “elite capture”.
Long-term sustainability of program activities- sustainable ecosystem management and installed energy infrastructure.	M	Communities and productive users will be involved from the early stages to facilitate awareness, uptake and sustainability of energy services. Sustainability risks will be addressed through design, economic mechanisms and governance. Reliance on goods and services from ecosystems and energy demand will stimulate the interest of communities in sustainability. The request for energy is considered a major limit to development in this "forgotten" area of the country.
The program’s interventions may one-sided benefit one gender or increase the burden on women.	L	The program applies a gender sensitive approach, considers impact gender disaggregated, aims at gender equality and at reducing related disadvantages and hardships.
ASSUMPTIONS		
<ul style="list-style-type: none"> – The main assumption is attention to climate change and to Afghanistan from donor countries following the Climate agreement adopted at COP 21 in Paris and the Brussels conference. – Government technical and financial (in-kind or cash) support to building climate change resilience, and commitment towards implementing NDCs priorities remains a priority. – National institutions and key stakeholders have human resources to support the project. – Local communities are willing to participate and collaborate with the project. – The institutions in charge of rangeland and forests understand the need for assigning rights and responsibilities to local communities and for integrating vulnerable groups. 		

3 LESSONS LEARNT, COMPLEMENTARITY AND CROSS-CUTTING ISSUES

3.1 Lessons learnt

This programme will build on key lessons collected and analysed from past EU and other donors’ development efforts in Afghanistan in several relevant sectors (i.e. rural development, environmental and watershed management, rural electrification, and policy support). In particular, the present initiative will draw on lessons learnt from (i) projects addressing watershed management, such as the EU Panj-Amu River Basin Program, USAID Strengthening Watershed and Irrigation Management; (ii) natural resource management programs, like the WCS programs in Wakhan funded by USAID and UNDP/GEF, FAO Reducing Green House Gas Emissions through Community Forests and Sustainable Biomass Energy, AKF community level afforestation and other projects; (iii) rural energy programs, such as GIZ implemented

projects Energy Supply for Rural Areas and Institutional Development for Energy and UNDP Afghanistan Sustainable Energy for Rural Development and (iv) EU ECO-DRR project implemented by UNEP as pilot intervention in 7 villages/3 village clusters in the Bamyan Province.

Out of these past experiences, the Government and the EU Delegation have drawn the following lessons learnt to be used in the framework of this Initiative:

- Rural people are caught in a poverty trap or negative feedback, as their livelihood dependency on use of limited natural resources coupled with increasing ecosystem degradation, lack of value adding and poor market access together with population growth, contribute to widespread poverty increasing pressure on ecosystems.
- Building technical and management capacity of water user associations can lead to an improved integrated water resource management at the local level, decreasing potential natural resource conflict and building local resilience.
- Regulation of use of rangeland, woodland and biodiversity through community-based management and other means is insufficient; growing use intensity and unsustainable practices lead to large scale degradation while local pilot activities showed potentials and challenges of introducing more sustainable practices.
- Economic activities as livestock breeding, use of non-wood forest products and arable farming are severely hampered by inadequate technology, lack of sustainable management institutions and climate change impacts (more frequent unusual precipitation and temperature patterns).
- Dependence on biomass for heating and cooking and inefficient energy use increase pressure on ecosystems and cause widespread degradation. Lack of renewable and sustainable electricity hampers social and economic development in the region. Sustainability of installed micro-hydro schemes is unsatisfactory due to poor maintenance and natural disasters. Other renewable energy technology (solar and wind) are not available in rural areas.
- The significant degradation of ecosystem services in rural areas, exacerbated by climate change and coupled with insecurity, contribute to increasing migration mainly of youth towards the cities or abroad.
- Holistic approaches linking ecosystem services, forest restoration and conservation, new technologies, agriculture-based economic activities, renewable energy, energy efficiency and social development can empower rural communities to improve their livelihoods, decrease youth migration while sustainably managing natural resources.
- Women are most affected by degradation of natural resources, disasters and loss of ecosystem services as well as by insufficient energy supply and inefficient use of energy for cooking and heating. Therefore, they must be involved and are willing and able to play key roles in local natural resources management, renewable energy generation and development and application of energy efficient technologies.

3.2 Complementarity, synergy and donor coordination

The action builds upon and complements a ten-year EU support to rural and agriculture development and empowerment of rural communities in Afghanistan. Notably, since 2003 the EU has contributed towards: i) implementing the Integrated Water Resources Management model in the Panj-Amu River Basin; ii) promoting farm and off-farm activities through the Food Security Thematic Programme); and, iii) supporting long-term research, private sector development and institutional support, improving services to Afghan farmers. The ADB/EU

Panj-Amu program under DCI-ASIE/2012/023-449 (EUR 45 Million), and the "EU Support to Agriculture and Rural Development in Afghanistan" ACA/2014/37581 (EUR 102,5 Million) currently contribute to the nexus between agriculture and natural resources management and will be completed by this action. Intervention in forest and rangeland management will cover areas not accessible by the ADB/EU program and renewable energy intervention will represent a pilot that could be then up scaled in future actions.

The present initiative builds upon a long-standing EU contribution in the Rural Development and Sub-National Governance (SNG) sectors, with commitments worth EUR 90 Million (DCI-ASIE/2013/024-392) towards the Ministry of Rural Rehabilitation and Development. These initiatives, including the National Rural Access Programme (NRAP), the National Solidarity Programme (NSP) and the Afghanistan Rural Enterprise Development Programme (AREDP), represent an effort to revitalize rural economy by constructing rural infrastructures, establishing small-scale community assets to improve living conditions and productivity and providing credit in rural areas.

The proposed programme will benefit from ongoing EU-funded research in Afghanistan, aimed at understanding the technical, social and economic aspects of integrated water management, rangeland management, access to rural electricity, and the complex dynamics of the relationship between pastoralists and farmers. Finally, links will be established with EU investment in public administration reforms targeting impact on service delivery at the provincial and district levels.

The programme complements several bilateral programmes developed by other donors:

- USAID's Regional Agricultural Development Program seeks to develop markets in important regional value chains;
- UK's Department for International Development (DFID)'s and Danish International Development Agency (DANIDA)'s CARD-F programme support to Economic Development Plans and investments in agriculture in selected areas;
- GIZ programmes supporting i) the renewable energy policy implementation with increased sustainable electricity production in rural areas and ii) the development of agriculture value chains.

The added value of the present programme will be a stronger linkage between ecosystem management and renewable energy issues to address directly Climate change mitigation and adaptation developing sustainable economic opportunities for local communities in targeted rural areas.

Finally, donor coordination is substantial as EU Delegation chairs the Agriculture and Rural Development Working Group, and co-chairs with the Directorate General for Natural Resource Management (NRM), the NRM Working Group.

3.3 Cross-cutting issues

Environment, Biodiversity and Climate Change: As per the Rio marker definitions, climate change adaptation, climate change mitigation, biodiversity and combatting desertification are the principal objectives of the program. The program aims at maintaining and strengthening the adaptive potential of key ecosystems to climate change by preserving their natural biodiversity and preventing and reversing desertification through the development of sustainable management of rangelands, woodlands and arable agriculture and the reduction of biomass extraction for heating and cooking. Prevention of degradation and restoration of ecosystems and biodiversity will support the climate change adaptation of land-use, improve water storage capacity of the landscape, reduce erosion and flooding and ensure the availability of ecosystem services for the society within the program region and beyond. This action will contribute to

achieve the National NDC targets for adaptation (building capacity) and mitigation (reforestation and introduction of renewable energy sources).

Gender: Research and experience in Afghanistan provide evidence that gender consideration in planning and implementing environmental, economic and social interventions greatly increases the prospect of success. Environmental degradation impacts at local level are particularly felt by women. Without reliable access to energy in rural areas, women and children spend most of their day performing basic tasks including physically draining tasks of collecting biomass fuels. Gender issues will be incorporated through a participatory approach in the project inception phase promoting adequate representation of both men and women in all activities. Reporting will also be disaggregated by gender. It is expected that women will play an important role in project activities, including management, training and establishment of alternative livelihood-natural resources related options. Good practices developed by the project will be shared with Ministry of Women's Affairs and other national stakeholders. Finally, the project will ensure mainstreaming gender issues into advocacy and development of learning management system.

Good governance and Decentralization: Improving natural resource management through institutional and individual capacity development at central, district and community level, as well as supporting decentralisation of the Government's Natural resource management strategy will be pursued. Strengthening local governance, through community natural resource management associations, will increase local decision-making and local resilience to current and future climate change risks. The de-centralization process is planned by several Ministries, notably Agriculture and Energy. This is in line with the "bottom up" approach of this action and with the new provincial budgeting policy.

Counter-Narcotics: Poppy cultivation remains an economically relevant component of the current farming system. This programme will contribute to create effective alternatives to illicit crops through labour intensive practices in forestry and post-harvest production related to energy availability.

Job creation and Migration: Past NSP interventions have increased jobs opportunities in rural areas reducing out-migration from villages⁵. By addressing wide-spread scepticism on future prospects and providing practical tools to open up new opportunities for economic and environmental protection activities in the rural areas, it is also expected that this action will contribute towards reducing internal displacement.

Rights-based Approach (RBA): The choice of implementing partners will enable integration of RBA guiding principles in the programme implementation.

4 DESCRIPTION OF THE ACTION

4.1 Objectives/results

This programme addresses environmental, economic and social challenges in the North-Eastern region by contributing to the solution of three key problems: i) increasing impact of climate change on ecosystems and rural communities, causing their reduced resilience; ii) unsustainable use and poor management of rangelands, woodlands and rain-fed arable lands leading to loss of biodiversity, ecosystem services and reduced resilience iii) inefficient use of energy and poor supply of renewable energy in rural areas causing serious pressure on ecosystems. This program's integrated approach reinforces EU and other donors' funded actions in support of climate change adaptation in vulnerable rural areas based on integrated watershed, ecosystem

⁵ <http://www.nsp-ie.org/reports/finalreport.pdf>

management and the development of sustainable and economically viable land and natural resources use. The proposed action, in line with the government priorities, will strengthen the communities' climate resilience, improve rural energy availability and efficiency and contribute to income generation and better livelihoods, thus in the medium term, reducing economic pressure causing outmigration from rural areas and contributing to facilitate absorption of incoming returnees.

The main objective of this programme is improved resilience to climate change of communities and the ecosystems in the Panj-Amu River Basin and the sustainability of their use for the benefit of rural communities.

The specific objectives are:

1. Conservation of biodiversity and increased ecosystems and community resilience through improved natural resources management and climate change adaptation measures in upper watersheds of the Panj-Amu River Basin;
2. Sustainable rural development and protection of ecosystems and biodiversity through increased renewable energy generation and distribution.

This program consists of **two main results**:

1. Improved knowledge on climate change impacts and adaptive capacity at the institutional, community and individual level;
2. Effective and holistic adaptation strategies to predicted climate change impact are available for the Panj-Amu River Basin and are implemented in selected intervention areas, improving the participatory management of ecosystems and biodiversity, resulting in increased community and individual resilience, income generation and sustainable livelihoods, and reducing pressure to out-migrate from rural areas;

4.2 Main Activities

This program's **main activities** are:

Result 1. Indicative activities targeting the Amu-Panj River Basin as a whole: (i) Conduct baseline climate change vulnerability assessment of ecosystems, biodiversity and communities in Panj-Amu River Basin, (ii) Develop and implement long-term monitoring programme for climate change impact and resilience indicators, (iii) Modelling of regional climate change and likely impacts for different scenarios, iv) Elaboration of recommendations for integration of climate change risks in national and sub-national policy frameworks, v) Capacity development of national and subnational government officials on climate change scenarios and modelling, climate change impact analysis, (vi) Generate and share project experience and best practices in watershed management, ecosystem-based adaptation and management of rangelands, woodlands/forest resources and arable lands.

Result 2. Indicative activities in intervention areas : (i) Mobilization of local communities in intervention areas through participatory assessments and planning exercises to become aware about climate change impacts and options for responses, (ii) Participatory planning and action approach to integrated watershed management and ecosystem-based climate change adaptation with focus on rangeland, woodland, forests and desertification-prone rain-fed arable lands, addressing biodiversity conservation and prevention of land degradation , (iii) Rehabilitation, expansion and preservation of woodland vegetation and forests by communities as well as activities leading to more sustainable use of rain-fed arable lands by transition to perennial crops, like drought resistant pistachio and other trees leading to soil rehabilitation and sustainable land use management to combat desertification.

4.3 Intervention logic

The intervention logic of this program is based on the knowledge about the predicted climate change in the Panj-Amu River Basin, which will exacerbate existing pressure on ecosystems caused by unsustainable resource use practices putting at high risk the provision of ecosystem services, including provision of natural resources for vulnerable communities, protection from natural disasters and balancing of water flow in rivers and irrigation canals, arable land, biodiversity conservation contributing to increased poverty, conflict and migration.

The program supports climate change adaptation and mitigation in the river basin and in selected intervention areas. For the entire Panj-Amu River Basin the program will:

1. Create and make available analytic information on climate change (so far not available), establish a climate change monitoring system, which will allow adaptive planning and management and make knowledge available to improve climate change adaptive capacity while building increased ecological, institutional, community and individual resilience. This result will be used at national and subnational level by the government and its sector agencies to provide the best evidence and scientific basis to develop climate change policies and local adaptation plans;
2. Increased sustainability use and rehabilitation of key ecosystems and their biodiversity, to more sustainable land-use practices and management of upper watershed, through ecosystem-based adaptation;

These two results will contribute to (i) improved sustainability of natural resources management leading to increased resilience and preserved functions of key ecosystems and biodiversity in upper watersheds of the Panj-Amu River Basin, (ii) increased renewable energy access, generation and energy efficiency, contributing to the conservation of ecosystems and biodiversity and to (iii) the creation of more income generation and livelihood opportunities, reducing migration pressure from rural areas.

In addition, these results will represent a significant contribution towards the overall objective for the Panj-Amu River Basin of improved resilience of communities and ecosystems and sustainability of their use under changing climate, ensuring the conservation of biodiversity and continuing availability of ecosystem services for the benefit of rural communities. These results will contribute to the efforts by the Government of Afghanistan and other donors to implement the country Nationally Determined Contribution (NDC) through a tangible action up scalable at national level.

5 IMPLEMENTATION

5.1 Financing agreement

In order to implement this action, it is foreseen to conclude a financing agreement with the partner country, referred to in Article 184(2)(b) of Regulation (EU, Euratom) No 966/2012.

5.2 Indicative implementation period

The indicative operational implementation period of this action, during which the activities described in section 4.1 will be carried out and the corresponding contracts and agreements implemented, is 48 months from the date of entry into force of the financing agreement.

Extensions of the implementation period may be agreed by the Commission's authorizing officer responsible by amending this decision and the relevant contracts and agreements; such amendments to this decision constitute technical amendments in the sense of point (i) of Article 2(3)(c) of Regulation (EU) No 236/2014.

5.3 Implementation Modality

Both in indirect and direct management, the Commission will ensure that the EU appropriate rules and procedures for providing financing to third parties are respected, including review procedures, where appropriate, and compliance of the action with EU restrictive measures affecting the respective countries of operation⁶.

5.3.1. Grant: direct award to "Improve participatory management and efficiency of rangelands and watersheds focusing on Wakhan, Yakawlang, Kahmard, and Sayghan Districts" (direct management)

(a) This grant will improve participatory management and efficiency of rangelands and watersheds in North-Eastern region:

- Creating and making available knowledge about climate change, its impacts on ecosystems and socio-economic systems;
- Supporting NEPA to mainstream climate change impact and adaptation into national and subnational sector planning, building capacity to understand and address climate change impacts through adaptive policies planning and natural resources management;
- Focusing on Wakhan, Yakawlang, Kahmard, and Sayghan Districts (other districts could be added in the inception phase), for the importance of ecosystems, river basin water balance, biodiversity, socio-economic conditions and/or vulnerability;
- Addressing participatory assessments and planning at community level related to sustainable management and adaptation potential of major ecosystems, land-use types and biodiversity, leading to the implementation of management activities in upper watersheds, rangelands, woodlands, forests/fuel wood plantations and arable lands.

(b) Justification of a direct grant

Under the responsibility of the Commission's authorising officer responsible, the grant may be awarded without a call for proposals to Wildlife Conservation Society (WCS) because the country is in a crisis situation referred to in Article 190(2) RAP. In the current unsecure conditions, for the purpose of crisis management aid, WCS is considered the most suitable implementing partner, due to its technical competence in ecosystem and rangeland management with local communities and CDCs in the Panj-Amu River Basin and namely in the Wakhan corridor, despite security concerns over the last two decades, with an irreplaceable knowledge of people and ecosystems management in this region.

(c) Maximum rate of co-financing

The maximum possible rate of co-financing for this grant is 90% of the eligible costs of the action.

In accordance with Articles 192 of Regulation (EU, Euratom) No 966/2012 if full funding is essential for the action to be carried out, the maximum possible rate of co-financing may be increased up to 100 %. The essentiality of full funding will be justified by the Commission's authorising officer responsible in the award decision, in respect of the principles of equal treatment and sound financial management.

(d) Indicative trimester to conclude the grant agreement

First trimester 2018.

⁶ https://eeas.europa.eu/sites/eeas/files/restrictive_measures-2017-04-26-clean.pdf

5.3.2. Grant: direct award to "Improve participatory management and efficiency of rangelands and watersheds focusing on Darwaz-e Bala, Nusai, Shukai, Kuf Ab, Khwahan, Shahr-e Buzurg, Chah Ab, Ishkashem and Zebak Districts " (direct management)

(a) This grant will improve participatory management and efficiency of rangelands and watersheds in North-Eastern region:

- Creating and making available knowledge about climate change, its impacts on ecosystems and socio-economic systems;
- Supporting NEPA to mainstream climate change impact and adaptation into national and subnational sector planning, building capacity to understand and address climate change impacts through adaptive policies planning and natural resources management;
- Focusing on Darwaz-e Bala, Nusai, Shukai, Kuf Ab, Khwahan, Shahr-e Buzurg, Chah Ab, Ishkashem and Zebak Districts (other districts could be added in the inception phase) for the importance of ecosystems, river basin water balance, biodiversity, socio-economic conditions and/or vulnerability;
- Addressing participatory assessments and planning at community level related to sustainable management and adaptation potential of major ecosystems, land-use types and biodiversity, leading to the implementation of management activities in upper watersheds, rangelands, woodlands, forests/fuel wood plantations and arable lands.

(b) Justification of a direct grant

Under the responsibility of the Commission's authorising officer responsible, the grant may be awarded without a call for proposals to Aga Khan Foundation (AKF) because the country is in a crisis situation referred to in Article 190(2) RAP. In the current insecure conditions, for the purpose of crisis management aid, AKF is considered the most suitable implementing partner, due to its technical competence in ecosystem and rangeland management with local communities and CDCs in the Panj-Amu River Basin, in particular in the districts listed above, despite security concerns over the last two decades, with an irreplaceable knowledge of people and ecosystems management in this region.

(c) Maximum rate of co-financing

The maximum possible rate of co-financing for this grant is 90% of the eligible costs of the action.

In accordance with Articles 192 of Regulation (EU, Euratom) No 966/2012 if full funding is essential for the action to be carried out, the maximum possible rate of co-financing may be increased up to 100 %. The essentiality of full funding will be justified by the Commission's authorising officer responsible in the award decision, in respect of the principles of equal treatment and sound financial management.

(d) Indicative trimester to conclude the grant agreement

First trimester 2018.

5.4 Scope of geographical eligibility for procurement and grants

The geographical eligibility in terms of place of establishment for participating in procurement and grant award procedures and in terms of origin of supplies purchased as established in the basic act and set out in the relevant contractual documents shall apply subject to the following provisions.

The Commission's authorising officer responsible may extend the geographical eligibility in accordance with Article 9(2)(b) of Regulation (EU) No 236/2014 on the basis of urgency or of unavailability of products and services in the markets of the countries concerned, or in other

duly substantiated cases where the eligibility rules would make the realisation of this action impossible or exceedingly difficult.

5.5 Indicative budget

An indicative budget for the program is given in the table below.

	EU contribution (amount in EUR)	Indicative third party contribution, (amount in EUR)
5.3.1. Results 1 and 2		
Direct grant WCS (direct management)	9,000,000	900,000 EUR
5.3.2. Results 1 and 2		
Direct grant AKF (direct management)	10,500,000	1,000,000 EUR
Total	19,500,000	1,900,000 EUR

5.6 Organizational set-up and responsibilities

A Project Steering Committee (PSC) will be set up for the programme. The PSC will meet at least bi-annually (and more often if needed). The chair of the PSC will be the National Environment Protection Agency NEPA and members will include, the Ministry of Agriculture, Irrigation and Livestock (MAIL), the Ministry of Energy and Water (MEW), the Ministry of Rural Development (MRRD) and Ministry of Finances (MoF), representative(s) of Local Government and of Civil Society (CSO) and the European Union Delegation to Afghanistan as an observer. The Steering Committee will be the body responsible for the general oversight, policy guidance and monitoring of the programme. Besides the PSC, technical working group meetings will be held regularly. WCS and AKF will be responsible for the secretariat of the PSC.

A Project Management Unit (PMU) will be installed in NEPA offices mutualising resources from WCS and AKF in order to reinforce coherence, coordination and national ownership. This will strengthen the links between the three results and their contribution to the Climate Change adaptation and mitigation under NEPA mandate fully associating MAIL, MEW and MRRD. It could consist, among others, of a Project Manager, Experts on Climate Change issues, Forestry and Rangeland Biodiversity, Rural Energy, Gender, Communication, Accounting and Administration. Partners are encouraged to use and support, whenever possible and relevant, staff recruited with NEPA and detached to the PMU.

5.7 Performance monitoring and reporting

The day-to-day technical and financial monitoring of the various results will be a continuous process and part of the implementing partner's responsibilities. In order to increase national ownership and institutional sustainability the implementing partners, WCS and AKF shall support the permanent NEPA, MAIL and MEW internal, technical and financial monitoring system for this action. This will allow to elaborate regular progress reports (annual) and final reports. Every report shall provide an accurate account of implementation of the action, difficulties encountered, changes introduced, as well as the degree of achievement of its results. The report shall allow monitoring of the means envisaged and employed and of the budget details for the action. The final report, narrative and financial, will cover the entire period of

the action implementation. Furthermore, the implementing partners would be responsible to design and implement the project Monitoring Reporting and Verification (MRV) aspect in collaboration with NEPA. In particular, within the designed MRV, the implementing partners would be responsible to define and determine CO₂ emissions baseline and to enhance inventory and data collection on the carbon sequestration.

The Commission may undertake additional project monitoring visits both through its own staff and through independent consultants recruited directly by the Commission for independent monitoring reviews (or recruited by the responsible agent contracted by the Commission for implementing such reviews).

5.8 Evaluation

Having regard to the importance of the action, a mid-term and a final evaluation will be carried out for this action via independent consultants contracted by the Commission. Mid-term evaluation will be carried out for problem solving and learning purposes. Final evaluation will be carried out for accountability and learning purposes at various levels.

The Commission shall inform the implementing partner at least 30 days in advance of the dates foreseen for the evaluation missions. The implementing partner shall collaborate efficiently and effectively with the evaluation experts, and *inter alia* provide them with all necessary information and documentation, as well as access to the project premises and activities.

The evaluation reports shall be shared with the partner country and other key stakeholders. The implementing partner and the Commission shall analyse the conclusions and recommendations of the evaluations and, where appropriate, in agreement with the partner country, jointly decide on the follow-up actions to be taken and any adjustments necessary, including, if indicated, the reorientation of the project.

Indicatively, two contracts for evaluation services shall be concluded under a framework contract in the 3rd quarter 2020 and 3rd quarter 2022.

5.9 Audit

Without prejudice to the obligations applicable to contracts concluded for the implementation of this action, the Commission may, on the basis of a risk assessment, contract independent audits or expenditure verification assignments for one or several contracts or agreements.

Indicatively, one or two contracts for audit services shall be concluded when needed following risk assessment.

5.10 Communication and visibility

Communication and visibility of the EU is a legal obligation for all external actions funded by the EU.

This action shall contain communication and visibility measures which shall be based on a specific Communication and Visibility Plan of the Action, to be elaborated and approved by the contracting authority and the Commission at the start of implementation and supported with the budget indicated in section 5.5 above.

In terms of legal obligations on communication and visibility, the measures shall be implemented by the Commission, the partner country, contractors, grant beneficiaries and/or entrusted entities. Appropriate contractual obligations shall be included in, respectively, the financing agreement, procurement and grant contracts, and delegation agreements.

The Communication and Visibility Manual for European Union External Action shall be used to establish the Communication and Visibility Plan of the Action and the appropriate contractual obligations.

Indicatively, one contract for communication and visibility shall be concluded.

APPENDIX - Indicative Logframe matrix (for project modality)⁷

The activities, the expected outputs and all the indicators, targets and baselines included in the logframe matrix are indicative and may be updated during the implementation of the action, no amendment being required to the financing decision. When it is not possible to determine the outputs of an action at formulation stage, intermediary outcomes should be presented and the outputs defined during inception of the overall programme and its components. The indicative logframe matrix will evolve during the lifetime of the action: new lines will be added for including the activities as well as new columns for intermediary targets (milestones) for the output and outcome indicators whenever it is relevant for monitoring and reporting purposes. Note also that indicators should be disaggregated by sex whenever relevant.

	Results chain	Indicators	Baselines	Targets	Sources and means of verification	Assumptions
Overall Objective	OO: Improved resilience to climate change of communities and the ecosystems in the Panj-Amu River Basin and the sustainability of their use for the benefit of rural communities.	1. No. of climate resilient, forest, watershed and rangeland management plans developed; (*EU RF L1 indicators ## 21, 23)	1. Not climate proof existing plans for forestry and rangeland system at watershed level.	1. Climate resilient forestry, rangeland management plans for targeted watershed.	Review of policy developed and analyzed.	
		2. No. of additional households (people disaggregated by gender)/SMEs in rural areas with access to basic electricity services. (* EU Results Framework Level 1 # 11)	0 in 2017	15,000 (50% female)/1,000 by end of project	Documentation by MRRD	
		3 Amount of avoided GHG emission and additional C sequestration	0 in 2017	Tons of CO2 equivalent, t.b.d. during inception phase	Climate change monitoring system, NEPA National Environmental Database	
		4. Number and percentage of community members economically benefiting from the program	0 in 2017	75% in target communities by 2021	Social surveys	
Specific objectives	SO1: Conservation of biodiversity and increased ecosystems and community resilience through improved natural resources management and climate change adaptation	1.1 Area (ha) of land reforested (* EU RF L2 ## 23 and 24)	0 in 2017	1. 5,000 ha reforested with climate resilient native species	GIS survey to assess reforested areas + calculation of planted and	The main assumption is attention to climate change and to

⁷ Mark indicators aligned with the relevant programming document mark with '*' and indicators aligned to the EU Results Framework with '**'.

	measures in upper watersheds of the Panj-Amu River Basin.				rehabilitated area.	Afghanistan from donor countries following the Climate agreement adopted at COP 21 in Paris and the Brussels conference. Government technical and financial (in-kind or cash) support to building climate change resilience, and commitment towards implementing NDCs priorities remains a priority. National institutions and key stakeholders have human resources to support the project. Local communities
		1.2 Are (ha) of additional land rehabilitated and sustainably managed (** EU RF L2 ## 6 and 7)	0 in 2017	200,000 ha rehabilitated and sustainably managed (to be verified during the project first semester).	GIS survey to assess reforested areas + calculation of planted/rehabilitated area.	
		1.3. Percentage of communities with CC resilient and sustainable watershed/ecosystems management plans and the area out of total Panj-Amu River Basin area covered by these plans. (**EU RF L2 # 23 and 24)	0 in 2017	t.b.d. in the inception phase		

						are willing to participate and collaborate with the project. The institutions in charge of rangeland and forests understand the need for assigning rights and responsibilities to local communities and for integrating vulnerable groups.
	SO2: Sustainable rural development and protection of ecosystems and biodiversity through increased renewable energy generation and distribution.	2.1. Annual energy generated in GWh by rehabilitated micro-hydropower (**EU RF L2 #12)	Degraded and limited functional micro-hydropower. kWh capacity t.b.d. in the inception phase.	Additional 15,000 kWh by end of the project	Documentation by MEW and MRRD	Climate agreement adopted at COP 21 in Paris and the Brussels conference. Government technical and financial (in-kind or cash) support to building climate change resilience,
		2.2 No. of households/SMEs in rural areas with access to basic electricity services from renewable sources for household use (**EU RF L2 #11,12, 13)	0 in 2017	15,000/1,000 SMEs by end of project	Documentation by MEW and MRRD	
		2.3 No. of members of vulnerable groups benefiting from the programme. (**EU RF L2 # 11,12)	0 in 2017	75% of identified members of vulnerable groups in target communities.	Social surveys	

						and commitment towards implementing NDCs priorities remains a priority. National institutions and key stakeholders have human resources to support the project. Local communities are willing to participate and collaborate with the project.
Outputs	Output 1: Improved knowledge on climate change impacts and adaptive capacity at the institutional, community and individual level. (WCS and AKF)	1.1 Status of operational monitoring system	0 in 2017	One operational monitoring system in place in 2020	Documentation of monitoring system and its use	Policy review not delayed by insufficient coordination between relevant Ministries; Communities are receptive and supportive of adaptation measures;

						MAIL and NEPA take a leading role in the promotion of co-management models for forest resources; Project stakeholders are willing to collaborate in analyzing their experience and lessons learnt.
		1.2 Status of data management system for collection, analysis, and dissemination	t.b.d. in inception phases of the project Existing national environmental database (managed by NEPA) without systematic climate change data management	Data management system is designed, institutionalized, integrated with the existing national environmental database (managed by NEPA) and functioning and climate change adaptation and mitigation data are available and accessed.	Documentation of data management system and its use	
		1.3 Status of models for the Panj-Amu River Basin on climate change and its impact under different scenarios	0 in 2017	3 for different scenarios in 2020	Documentation of models and their application in planning	

		1.4 No. of recommendation documents formally adopted and included in national/sub-national planning documents on watershed, rangeland, forestry, agriculture, protected area management and rural energy.	0 in 2017	At least 4 in 2021	Relevant national policy documents.	
		1.5 No. of national and subnational government officials trained who are able to demonstrate measurable increase in climate change knowledge and apply it in their fields of responsibility	t.b.d. in inception phases of the project	At least 200 from local NEPA and MAIL delegations and other local gov't agencies by the end of the project	Yearly Activity Report by local delegations of MAIL and NEPA	
		1.6 High quality, relevant knowledge products (e.g. Best Practices manual/handbook, training materials, curricula for short term courses) generated, and disseminated among stakeholders and accessible via special knowledge management portal.	t.b.d. in inception phases of the project	At least five knowledge products available and disseminated	Knowledge management portal with documents produced during project activities.	
		1.7 No. of farmers and their family members receiving tailored knowledge products and participating in knowledge sharing activities. (** EU RF L2 #7)	0 in 2017	By the end of the project at least 6,000 households in selected villages receive knowledge products and participate in knowledge sharing activities.	Documentation of dissemination and use of knowledge products.	
	Output 2: Effective and holistic adaptation strategies to predicted climate change impact are available for the Panj-Amu River Basin and are implemented in selected intervention areas. (WCS and AKF)	2.1 No. of schools in the project intervention area integrating climate change information into curriculum and activities.	0 in 2017	30 by 2021	Training workshop reports (including signed lists of trainees)	MAIL and NEPA take a leading role in the promotion of co-

		2.2 No. of communities with participatory, CDC endorsed watershed management/ecosystem-based adaptation plans, addressing conservation of critical ecosystems and biodiversity.	10 in 2017	25 by 2021	Approved plans, Yearly Reports by local MAIL and NEPA Delegations.	management models for forest resources; Communities are receptive and supportive of adaptation measures.
		2.3 Size of area covered under participatory watershed management/ecosystem-based adaptation plans.	t.b.d. in inception phases of the project	2.3 By 2021: Absolute value t.b.d. in inception phases of the project.	Approved plans, Yearly Reports by local MAIL and NEPA Delegations.	
		2.4 Number and Percentage of communities in intervention areas with effectively working rangeland associations;	0 in 2017 t.b.d. in inception phases of the project	2.4 At least 10 communities in each intervention area by 2019; Percentage of communities t.b.d. in inception phases of the project	Yearly Activity Report by local Delegations of MAIL and NEPA.	
		2.5 Percentage of board members of rangeland association covered under indicator 2.4 (disaggregate by gender, under 30 years old);	t.b.d. in inception phases of the project	2.5 by 2021: i)25% female board members ii) 25% under 30 years old board members	Documentation of board membership of rangeland associations	
		2.6 Percentages of used pastures for which rangeland management plans are implemented, taking biodiversity conservation into consideration. (*EU RF L2 # 6)	0 in 2017 t.b.d. in inception phases of the project	2.6 By 2021: 80% of rangeland area used by 80% of communities with rangeland associations	Rangeland management plan implementation reports and rangeland assessments (GIS supported)	
		2.7 Percentage of communities in intervention areas with woodland and	0 in 2017	2.7 By 2021: 75% in suitable areas	Yearly Activity Report by local Delegations of	

	forest management plans (including integration in rangeland plans);			MAIL and NEPA.	
	2.8 Percentage of area with woodlands and forests in communities under 2.7 managed sustainable according to forest management plans	0 in 2017	2.8 By 2021		
	2.9 Size of newly established woodland, forest and fuel wood plantations under community management; (**EU RF L2 ## 6)	0 by 2017	2.9 By 2021 5,000 ha with climate resilient native species	GIS survey to assess reforested areas + calculation of planted and rehabilitated area.	
	2.10 Area of prone to climate change and degraded rain-fed arable lands transformed into plantations of perennial crops like pistachio and other drought resistant trees and shrubs. (**EU RF L2 ## 6)	0 by 2017	By 2021 3,000 ha with climate resilient native varieties.	GIS survey to assess areas transformed into perennial plantations + calculation of planted and rehabilitated area.	
	2.11 Percentages of women and under 30 years old among those involved in community activities on woodland and forest management.	t.b.d. in inception phases of the project	2.11 By 2021 i) 25% women among individual forest users and/or among board members of associations ii) 25% under 30 years old among individual forest users and/or among board members of associations	Forest use agreements, documentation of board membership of rangeland associations	