Annex 5 to OPG_Amended in October 2016

REQUEST FOR PROJECT/PROGRAMME FUNDING FROM THE ADAPTATION FUND

The annexed form should be completed and transmitted to the Adaptation Fund Board Secretariat by email or fax.

Please type in the responses using the template provided. The instructions attached to the form provide guidance to filling out the template.

Please note that a project/programme must be fully prepared (i.e., fully appraised for feasibility) when the request is submitted. The final project/programme document resulting from the appraisal process should be attached to this request for funding.

Complete documentation should be sent to:

The Adaptation Fund Board Secretariat
1818 H Street NW
MSN N7-700
Washington, D.C., 20433
U.S.A
Fax: +1 (202) 522-3240/5
Email: afbsec@adaptation-fund.org

Amended in October 2016

PART I: PROJECT/PROGRAMME INFORMATION

Project/Programme Category: Artik city closed stone pit wastes and flood management pilot project

Country/ies: Armenia

Title of Project/Programme: Regular project
Type of Implementing Entity: NIE

Implementing Entity: “Environmental project implementation unit” SA

Executing Entity/ies: Ministry of Nature Protection of RA

Amount of Financing Requested: 1,500.000 USD

(in U.S Dollars Equivalent)

Project / Programme Background and Context:

Shirak province (marz) administrative district where the project is envisaged to be implemented is located in the north-west of the Republic of Armenia bordering Turkey in the west and Georgia in the north. "Arpi lake" national park is located in the marz. The climate of the marz is temperate mountainous with cool summers and severe and long winters. Annual precipitation is 500-600mm. Here, the absolute minimum temperature in Armenia was recorded -46˚C:

Shirak marz in known for its tufa, pumice, limestone mines, especially Artik region which is located in the southern part of the marz. The region is located on the volcanic plateau and foothills and is known for its favorable conditions for grain crop and livestock development. For years exploited stone pits have had negative impact on the environment. Previously, more than 60% of the total volume of construction stone products of the Republic were produced in Artik and its adjacent communities. Many mines were closed due to reduction of construction stone consumption volumes, conservation and reclamation works of the mines have not been carried out thus causing many environmental problems. Hundreds of hectares of agricultural and natural landscapes were degraded and lost natural way of restoration due to such exploitation of mines. Dust through strong winds and solid remnants through snowmelt and rainfall spread over great distances polluting natural agro landscapes. As a result, there is a decrease in the yield of agricultural crops, crop quality and adaptation level of natural landscapes to climate change.

Another problem is the increasing frequency of severe floods in the last 20 years, which is due to the spring temperatures not typical for the region. If until 1980s the air temperature reached 20-25^{0}C within one and a half months, now it is rising quickly and unevenly. As a result this accelerates snowmelt causing the emergence of strong floods. The negative impact of such climate change is also lies in the fact that industrial waste of the mines are dumped into two storm canals passing through Artik territory significantly reducing their capacity. During intense spring snow melt and heavy rains flood waters overflow residential and public buildings, lands, gardens, streets and yards. This phenomenon is repeated every year. Flood that occurred in June 2016 caused more than 210 000 USD damage to Artik city infrastructures and population the elimination of the consequences of which can not be done only by means of the city budget.

The budget of the city and adjacent communities does not allow eliminating negative impact of repeated floods and stone pits to the environment.

CLIMATE CHANGE OBSERVED IN ARMENIA

Trends in ambient air temperature and precipitation changes

Changes in annual ambient temperature and precipitation in Armenia have been assessed for various time periods; the results were used in preparations forFNC and SNC. These results show that,in recent decades, there has been a significant temperature increase (see table 5-1 andfigure 5-1).In the period of1929-1996, the annual mean temperature increased by 0.4^0C; in 1929-2007by 0.85^0C; in 1929-2012by 1.03^0C.

Table 5-1.Annual mean temperature and precipitation changes in 1929-2012 changes relative to the 1961-1990 average

Time period	Air temperature, ^{0}C	Time period	Precipitation, mm(%)
1929-1996	+0.4	1935-1996	-35(-6)
1929-2007	+0.85	1935-2007	-41 (-7)
1929-2012	+1.03	1935-2012	-59 (-10)

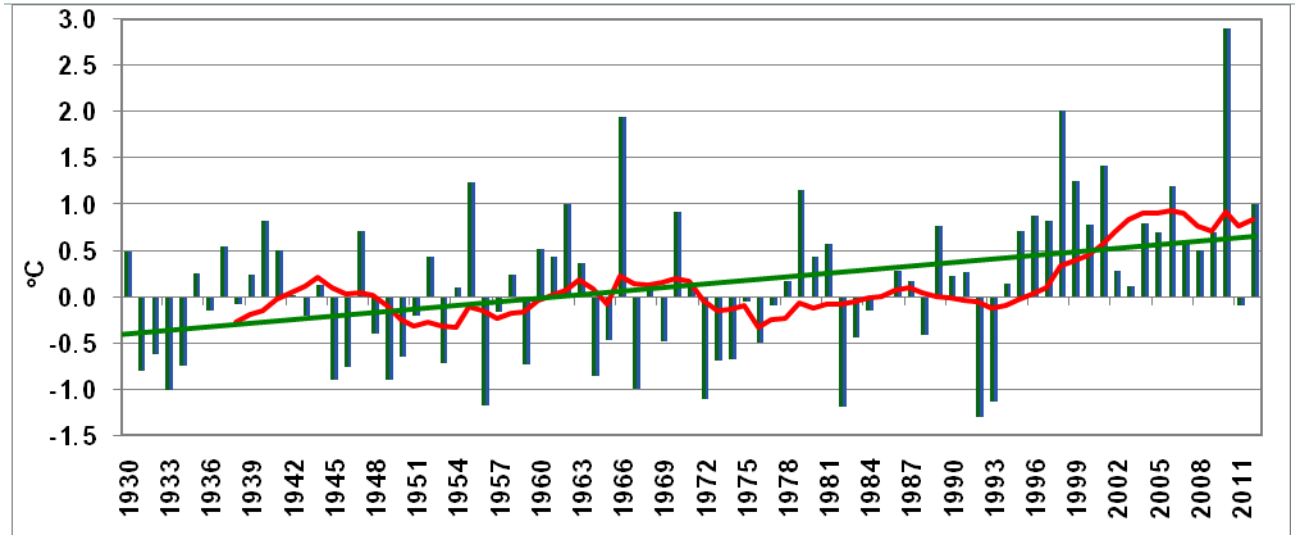
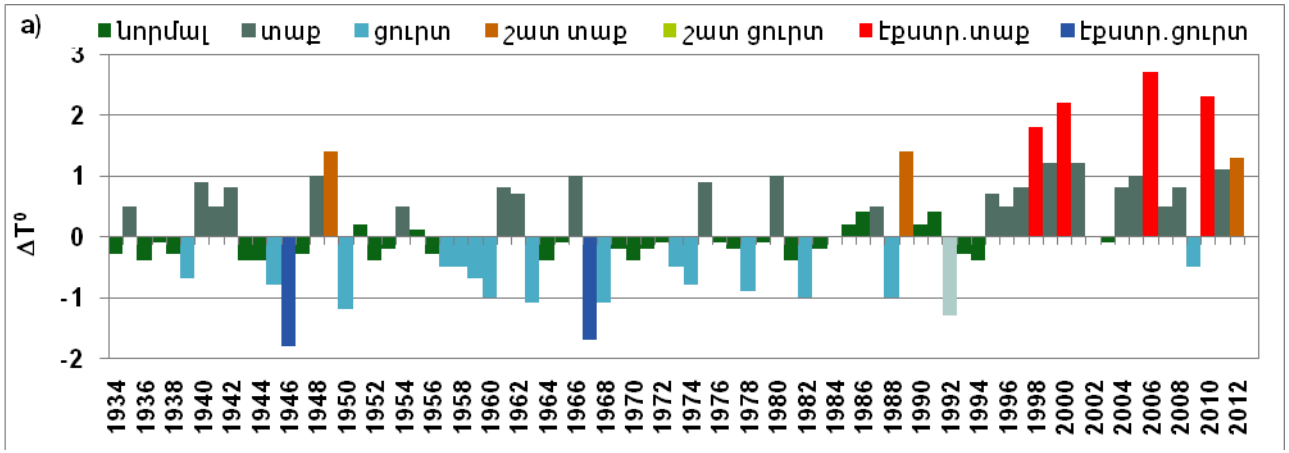


Figure 5-1. Deviations of average annual air temperature in the territory of Armenia from the average values for 1961-1990

On 31July 2011 the absolute maximum temperature43.7^{0}C for the whole period of observations in Armenia was recorded in Meghri region, which exceeded the previous record by 0.7^{0}C.Over various seasons of the year ambient air temperature changes exhibit different trends. In 1935-2011 the summer average temperature increased by about 1.1^{0}C, and extremely hot summers have been observed over the last 17 years (1998, 2000, 2006, 2010) (see figure 5-2a). Winter temperature changes look different: seasonal mean temperature increases are insignificant at0.4^{0}C (see figure 5-2b).



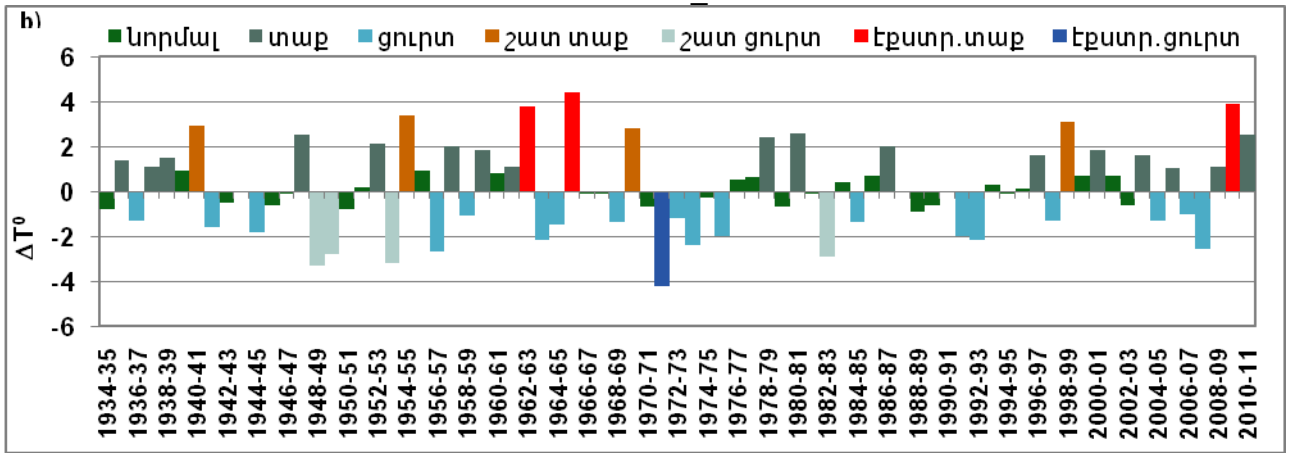


Figure 5-2.Deviation of summer (a) and winter (b) temperatures in the territory of Armenia in1935-2012 from the average values for 1961-1990

The comparison of changes in the assessment of precipitation amounts for different periods demonstrates that precipitation continues to decline. Observations showed that, in1935-1996, there was a 6% decrease in annual precipitation, while in 1935-2012 it was close to a 10% decline (see figure 5-3).

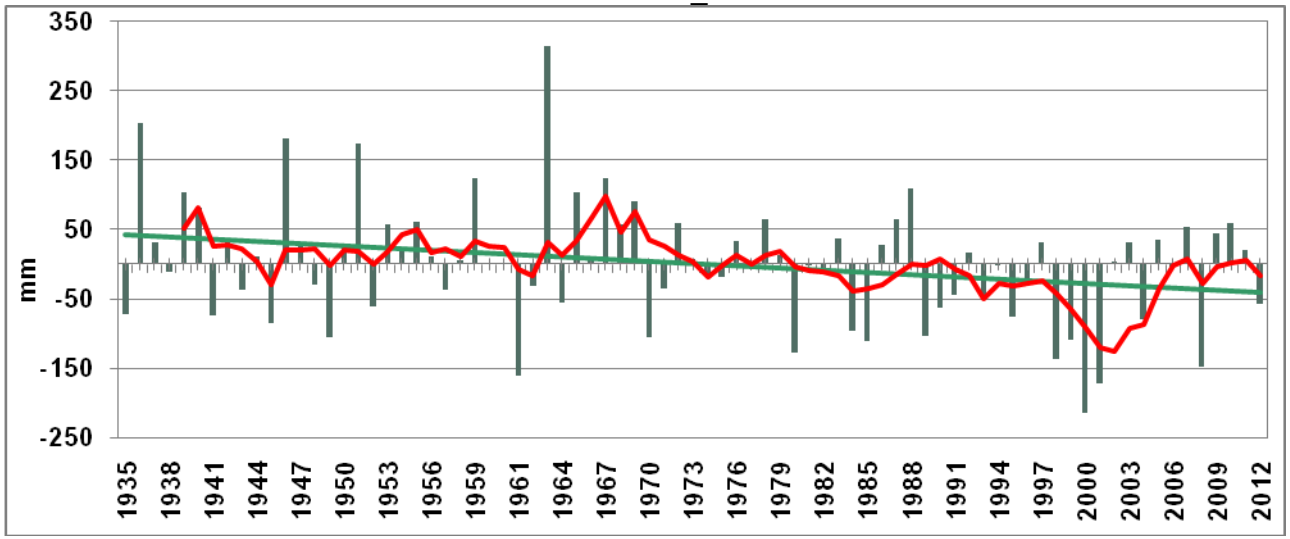


Figure 5-3. Deviation of annual average precipitation in the territory of Armenia fromthe average of 1961 -1990

The spatial distribution of changes in precipitation amounts is fairly irregular. Over the last 80 years, the climate in the northeastern and central (Ararat Valley) regions of the country has turned arid, while precipitation has increased in the southern and northwestern regions, as well as in the western part of the Lake Sevan basin.

Trends in atmospheric circulation changes

Atmospheric circulation is a key factor for climate formation which, in the territory of Armenia, is expressed as an influence of Western air streams peculiar to sub-tropical zones. There have been changes of general circulation processes in the atmosphere as a result of the global climate change. Climate risks and the frequency of hazardous hydro-meteorological phenomena have increased over the last decade as a result of changes in global atmospheric circulation. For this purpose, a study was conducted on the regional daily, monthly and annual thermo baric fields for 1948-2008; 14 types of processes determining the climate of Armenia have been identified.

Cyclones penetrating into the territory of Armenia mostly come from the Mediterranean Sea, Asia Minor regions (from Syria and northern Iraq), and sometimes from northeastern Africa. Cyclones transiting the country create more clouds and more intensive winds at velocities up to 25-30m/sec.

The entrance of southern cyclones into the territory of Armenia is accompanied by thunderstorms, heavy precipitation and more intensive south winds. The average amount of penetration of southern cyclones has increased by 24%, which has increased the number of days with intensive rainfall in the entire territory of the country. The number of events with heat depression has increased by 107%, therefore increasing recurrence of summers with high thermal background and scarce rainfall.

Late spring and early autumn frosts, strong winter frosts, and strong winds are mainly due to Scandinavian anticyclones, the frequency of which has increased by 71%. This shows that the recurrence of hazardous atmospheric phenomena in the territory of Armenia caused by these anticyclones is expected to grow. The occurrence of formation of Iranian anticyclones in the territory of Armenia has increased by over 63%, resulting in the increased recurrence of heatwaves. The occurrence of weakly expressed steady pressure fields not leading to any hazardous meteorological phenomena has decreased by 26% in Armenia.

Hazardous hydrometeorological phenomena

In recent decades, climate change has significantly increased the frequency and intensity of natural disasters both in Armenia and globally.The marginal values so far recognized characterizing these phenomena have also changed. Damage caused by hazardous hydrometeorological phenomena to the economy and to human life has increased. Extreme events (hail, frost, strong winds, heavy rainfall, floods, droughts, heat waves) may be contributing to the generation of natural calamities (or their escalation), such as landslides, avalanches, mudflows, forest wildfires, rock-falls, outbreaks of infectious diseases, etc.

To reveal trends in extreme hydrometereo-logical events the dynamics of phenomena most frequently observed in Armenia from 1980-2012 were analyzed, including: frost, hail, strong winds, and heavy precipitation. The maximum aggregate number of 245 hazardous events was observed in 2004;the minimum number of 106 events in 2006. The amount of hail was greatest in Shirak valley; heavy precipitation was most common in Tashir and Ijevan regions; more frost events were observed in Ararat Valley and pre-mountainous regions.

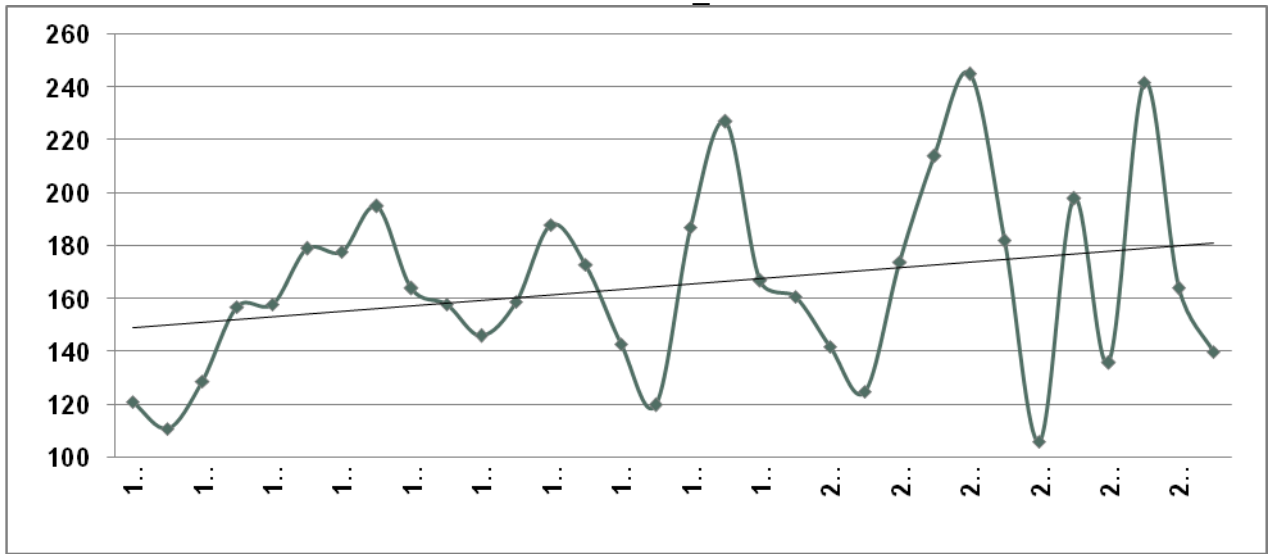


Figure 5-4.Number of extreme hydrometereological events (frost, hail, heavy rainfall and strong winds) observed in the territory of Armenia in 1980-2012

The analysis showed that:

- The number of frost events has increased significantly, which may have the following explanation: the annual mean temperature increase in Ararat Valley mostly occurs in March, which triggers the earlier start of vegetation; the sharp temperature fall in April consequently increases the frequency of frost events;
- The number of days with heavy precipitation and hail has increased. This is due to the higher frequency of penetration of high cyclones generating heavy rain and hail clouds.

Extreme Climate Indexes

The increase in the frequency of extreme climatic phenomena is one of the main indicators of climate change. 30 indexes recommended by the WMO for the entire territory of Armenia for 1935-2012 have been assessed. These indexes can be applied to several sectors such as: public health, agriculture, water resources, etc.

The number of summer days (Tmax> 25^0C) has significantly increased, particularly in arid semi-desert and steppe zones (3.9-4.9 days/10 years); the number of tropical nights (4.6 days/10 years) has increased in the dry desert zone. For the same period, the number of cold days (1.1-3.5 days/10 year) has decreased, while there has been a reduction in the number of frosty days (0.4-3.1 day/10 year). The duration of heat waves has increased from 1.6-5.4 days/10 year, while the duration of cold waves has fallen to 0.3-2 days/10 years.

The average number of consecutive dry days is particularly high in Meghri and Ararat (61 and 58 days respectively). The average number of dry days in Yerevan is 42; the maximum of 63 days was recorded in 2010.

In 1935-2012 the number of dry days increased in almost all zones: the maximum of 3 days/10 years was recorded in the dry sub-tropical zone.

Given the particular importance of the effect of hot and cold waves on public health and agricultural crops,a deviation of$\pm 3^0$C fromthe norm of the daily maximum ambient air temperature for the maximum (minimum) daily average of five and more consecutive days was estimated in 1961-1990.

The average value of heat waves in the different climatic zones of Armenia varies between 12-26 days, while the maximum value is 34-70 days. The average value of cold wavesranged from 10-20 days, and the maximum value is 31-70 days.

It should be noted that the maximum number of cold waves in Armenia was recorded in 1982;the maximum number of heat waves were in 1998, 2000 and 2010. An analysis of annual change trends in the aggregate quantity of hot days in several settlements proves that the duration of heat waves has significantly increased over the last 30 years. For instance, in Yerevan in 1981-2013 the heat-wave average has increased by about 40 days, while the duration of cold waves has decreased by 1.4 days for the same period.

CLIMATE CHANGE PROJECTIONS

Climate change in Armenia is assessed using the CCSM4 model in accordance with the IPCC recommended RCP8.5 and RCP6.0 scenarios for CO_2 emissions.Therefore, as per the RCP6.0 scenario (equivalent to the SRES B2 scenario) CO_2 concentration will be 670ppm by 2100 and it will be 936ppm according to the RCP8.5 scenario (equivalent to the SRES A2 scenario). Future change forecasts for ambient air temperatureand rainfall have been developed up until 2100. The results indicate that the temperature will con-tinue to increase in all seasons of the year (see table 5-2). However, according to the RCP8.5 scenario, starting from the mid-21th century (2041-2100) the temperature will rise at a more rapid rate. According to the RCP8.5 scenario, it is very likely that, by 2100, the average annual temperature in Armenia will be 10.2^{0}C, which exceeds the baseline (1961-1990) by 4.7 ^{0}C.

Table 5-2. Projected changes in annual and seasonal average temperatures in the territory of Armenia compared to the average for1961-1990, ^{0}C

Seasons	1961-1990average	Scenarios	2011-2040	2041-2070	2071-2100
Winter	-5.3	RCP, 6.0	1.4	2.6	3.6
		RCP, 8.5	1.7	2.8	4.4
Spring	4.3	RCP, 6.0	1.3	2.4	2.7
		RCP, 8.5	1.4	2.7	3.9
Summer	15.7	RCP, 6.0	1.9	3.0	3.8
		RCP, 8.5	2.1	4.0	6.0
Autumn	7.2	RCP, 6.0	0.8	2.3	3.0
		RCP, 8.5	1.4	3.2	4.4

Seasons	1961-1990average	Scenarios	2011-2040	2041-2070	2071-2100
Year	5.5	RCP, 6.0	1.3	2.6	3.3
		RCP, 8.5	1.7	3.2	4.7

Figure 5-5 presents spatial distribution maps for annual mean temperature for the 1961-1990 baseline, and projections for 2071-2100. It is expected that, by 2100, temperatures will increase in most regions of Armenia. Increased temperature in mountainous regions demonstrates an apparent retreat in negative temperatures (blue-coloured areas, see figure 5-5b). For instance, 2100 annual mean negative temperatures will be maintained only in the highlands of Aragats, Geghama, and the Zangezur mountains. In general, seasonal and annual temperature and precipitation change trends are similar. It should be noted that maximum temperature growth is observed during the summer.

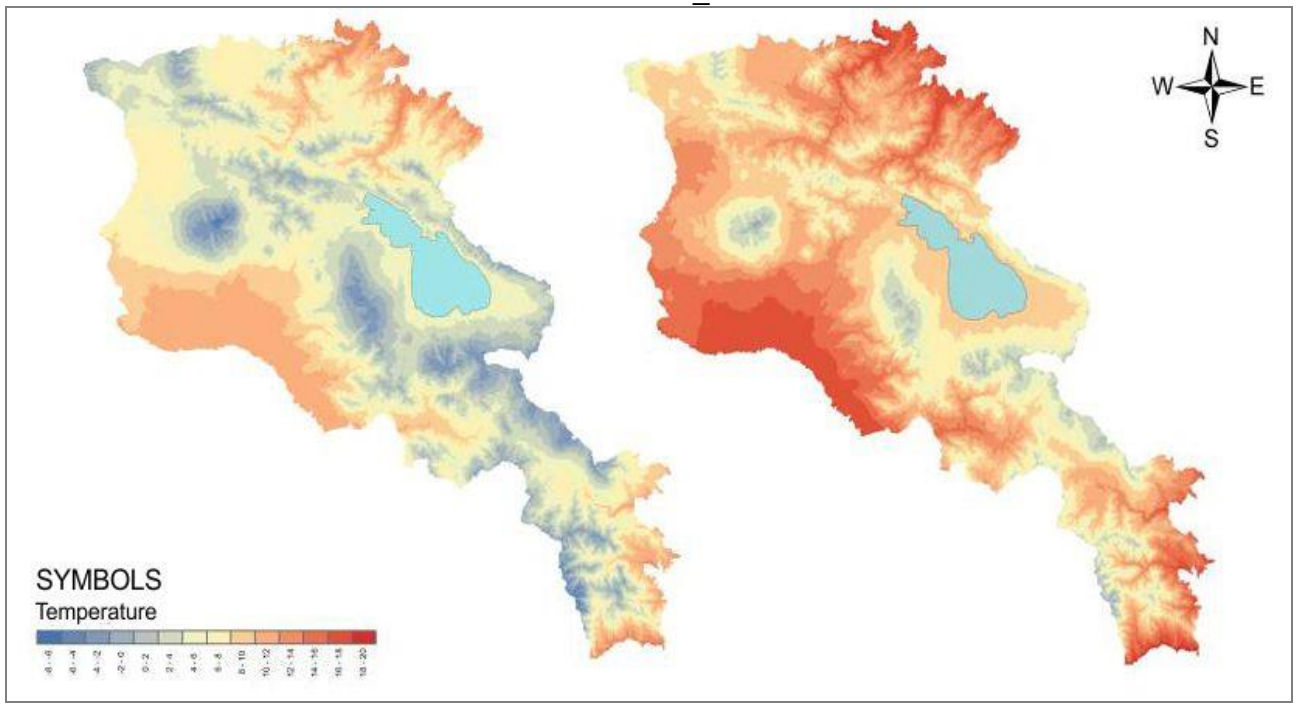


Figure 5-5. Distribution of annual average temperature in Armenia in (a) 1961-1990 and (b)projections for 2071-2100, RCP 8.5 scenario

Evaluation results for precipitation change show that, according to the RCP8.5 scenario, there might be 16.3% increase in annual precipitation in Armenia by themid-21st century.There will be no changes in precipitation according to the RCP6.0 scenario. However, according to both scenarios for the summer months there is an expected significant decrease in precipitation in all 3 periods:in 2011-2040 summer precipitation is expected to decrease by about 23%compared to the baseline (1961-1990) period.

Table 5-3.Changes in annual and seasonal precipitation in the territory of Armenia compared to the average of 1961-1990, mm

Season	1961-1990 average	Scenarios	2011-2040	2041-2070	2071-2100
Winter	114	RCP, 6.0	5.3	5.8	6.2
		RCP, 8.5	-5.7	16.3	2.9
Spring	211	RCP, 6.0	1.2	4.2	2.6
		RCP, 8.5	4.2	-8.0	2.4
Summer	148	RCP, 6.0	-10.1	-10.8	12.8
		RCP, 8.5	-23.0	-3.4	-13.0
Autumn	119	RCP, 6.0	5.0	3.2	1.2
		RCP, 8.5	2.5	8.6	13.6
Year	592	RCP, 6.0	5.3	5.8	6.2
		RCP, 8.5	-5.7	16.3	2.9

The distribution of annual precipitation amount seen Armenia will not undergo significant change; however, in pre-mountainous and mountainous regions there will be a slight increase by the mid- 21st century.

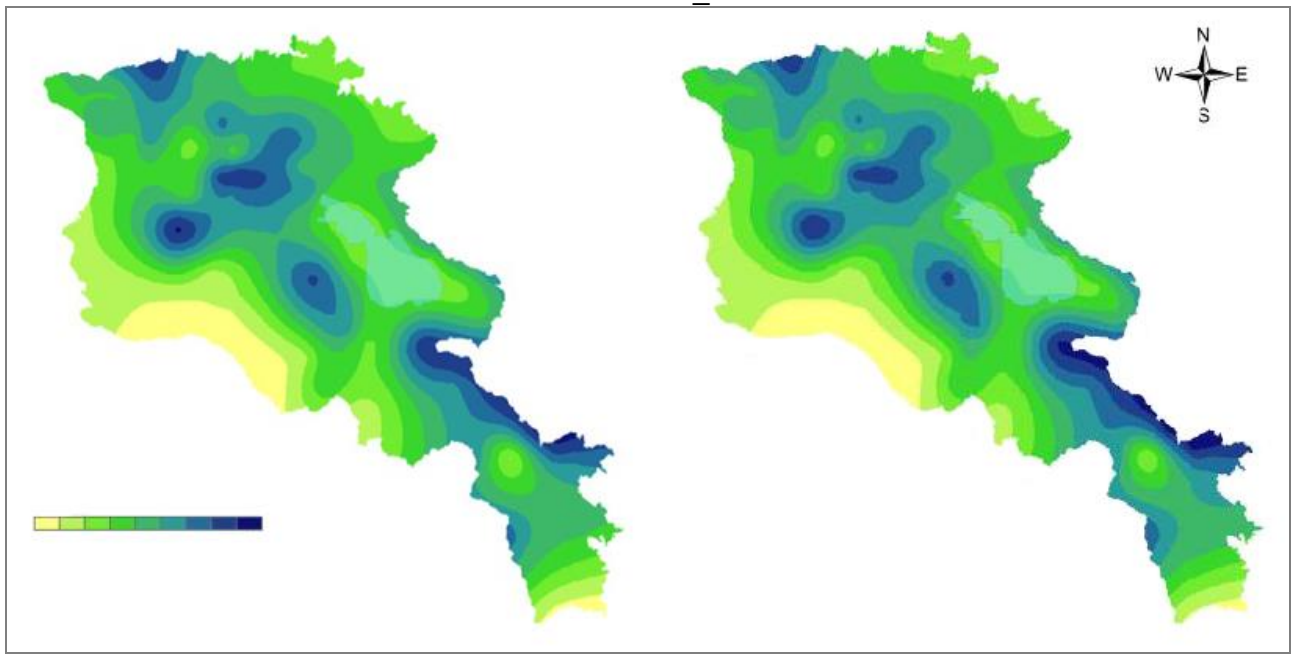


Figure 5-6. Distribution of annual average precipitation (mm) in Armenia in (a) 1961-1990 and (b) projections for2071-2100, RCP 8.5 scenario

Summers in most of the regions of the country are usually characterized by hot and dry weather conditions. According to the model projections, these conditions will worsen, leading to a variety of problems in water resources, agriculture, energy, healthcare and other sectors.

Although the results of the CCSM4 model reproduce changes in temperature fairly well, there are large uncertainties in terms of precipitation. Additionally, the resolution of the model for the mountainous terrain of Armenia is insufficient.

Artik city climate

Artik area represents mainly erosion slopes, cut with many permanent and temporary gorges. Artik town is located in south-eastern part of Shirak marz, in north-western foothills of Mountain Aragats at an altitude of 1800m above sea level. One of the major factors that influence the climate are south and south-west air flows that cause cold weather.

The Artik town climate is temperate mountain, with long cold winter and steady snow cover, the absolute minimal air temperature reaches -30 ºC. There are sometimes strong winds, often fogs and snow storms. Summer is warm, relatively wet, the maximal temperature is +30 ºC. The average temperature in July is 16 ºC C. The annual rainfall amount is 500-550mm, snow cover height is 61cm, soil frost depth is 110cm. The average wind velocity is 3.0-6.0m/sec, the westward winds prevail. There is developed non-metal mineral products industry and multi-branch farming. The area is rich in commercial construction sand, tuff, scoria, pumice stone resources. The area acceleration is 0.3-0,4g and is situated in 8-9 point earthquake probable performance zone. The natural landscapes are black soil mountain steppes.

The area vegetation mostly relates to steppe type. Among the soil types the black soils prevail where forbs grass are common. The mountain steppes are presented by three vegetative formations of Gramineae Poaceae family species (Stipa, Festuca and Bromus). Currently, the forest vegetation in the Shirak floristic zone is completely absent. But in past the lands were covered by forests the evidence of which is existing thorny shrubs.

The common representatives of the area fauna are steppe, alpine species. It is represented by the domestic animals, birds' reproduction. From amphibians and creepers there occur species of toads, frogs, lizards and snakes. Of widely spread animals there are hares (Lepus europaeus), foxes (Vulpes vulpes), wolves (Canis lupus) and number of rodents. There are no vulnerable or special nature protected areas on the project area.

There is developed non-metal mineral products industry and multi-branch farming. The area is rich in commercial construction sand, tuff, scoria, pumice stone resources.

Mechanical extraction of tuff in Artik mines started since 1928. During the mentioned period more than 50 million cubic meter tuff mass was extracted of which only 35-40% was used as a standard building material while the rest was thrown into the environment as waste. Moreover, these wastes and abandoned stone pits here occupy more than thousand hectares of fertile black soils.

Project / Programme Objectives:

The project objective is to prevent natural and agro landscape degradation through the elimination of anthropogenic adverse effects and to decrease the frequency and intensity of natural disasters conditioned by climate change, as well as to increase the level of adaptation of landscapes.

Project / Programme Components and Financing:

Component1. **Reclamation and management of 40 ha of closed mine site**

The objective of this component is to develop a series of complex events which will eliminate human-induced adverse effects on natural and agro landscapes and will contribute to raising the level of public health, as well as to create waste management mechanisms, reduce waste impact on the environment, improve territories. Implement recultivation, tree planting and sowing of soil layer strengthening herbs, irrigation system construction; create a recreational area in the territory and to allocate it to Artik municipality for further protection. A single system of actions will be merged into methods for enhancing natural and agro landscape climate change adaptation which will demonstrate more efficient opportunities for the recovery of degraded areas. It is planned to create stakeholders associations in communities that are responsible for the use, maintenance and continuity of the project results. Site management plan will be developed on participatory management basis **w**hich will reflect the envisaged actions and implementation schedule.

During Soviet and post-Soviet years more than 60% of construction stone of the Republic's total volume was produced in Artik of which only 35-40% was used as a standard building material while most of the rest were thrown into the environment as waste. As there were not any special waste dumping places they were irregularly poured into the surrounding areas of mines. In Soviet times mainly natural landscape of Artik town and surrounding communities were used, while in post-Soviet years lands of agricultural importance which were privatized and later abandoned by the owners. Mountain steppe black soils, gorges and steep slopes were mainly contaminated where forbs grass and bushes are common. As a direct effect, flora and fauna of the given area and adjacent territories has significantly become poorer and most importantly soil physical and chemical composition and expansion feature deteriorated. Under these conditions snowmelt and rainwater surface flow is accelerated, deteriorating the quality of the soil to retain water and absorb moisture, resulting species and quantitative composition loss of flora and fauna. Such changes are accelerating the degradation processes of natural landscapes.

As a secondary effect of the stone pits the spread of stone dust, soluble substances and relatively small fractions into adjacent natural and agricultural landscapes through wind, snowmelt and rain waters exists. Over the years their gradual accumulation has had negative impact on the sustainability of natural and productivity of agricultural landscapes.

The said effects greatly weakens self-restoration feature of landscapes and adaptation to projected climate changes.

Thus we can generalize that adverse effects of uncultivated mines and wastes can be likened to a chain whose links are natural, agricultural and artificial landscapes, aquatic ecosystems, adjacent communities and infrastructures.

The envisaged measures will contribute to the improvement and self-recovery of more than 300 hectares of arable land 190 hectares of pastures, 15 hectares of hay meadows, 640 ha of artificial forests, 80ha of water reservoir and other natural landscapes in the project impact area, as well as to sustainability and adaptation level increase to climate change.

Till today full reclamation of closed stone pits has not been carried out in the Republic of Armenia and there aren't any comparisons to other available technologies and techniques for climate change adaptation. The list of works and costs was calculated by the specialists of Artik city municipality. Taking into account the area's climate and soil conditions we have come to a conclusion that soil layer recovery and establishment of forest is most effective way to counter climate change and promote adaptation of the surrounding landscapes.

The component will focus on disseminating the best practices in the adjacent communities where there are abandoned and disused mines.

Component2. Flood prevention and management

The task of the component is to create flexible system of flood management which will contribute to reducing the vulnerability to flooding in adjacent communities of Artik.

As it was mentioned in Component 1 the adverse effects of uncultivated mines and wastes can be likened to a chain one of the links of which is flood management. Environmental damages have not been calculated in Artik city till today which is a relatively large and besides direct impact it also has long-term further impact.

Direct environmental damages:

1. Agricultural and natural landscapes are covered with gravel and stone wastes, soil quality, plant growth and reproduction conditions become worse. :
2. Survival and reproduction condition of animal species typical to the area worsen in natural landscapes.
3. Crop yield decreases in agricultural landscapes.
4. Water pollution level worsens in aquatic ecosystems and conditions of life of the plant and animal species deteriorate.
5. Sanitary conditions of settlements worsen causing spread of a number of diseases.

Indirect environmental damages:

1. After the floods the dust through the wind and rainwater is spread over a large distances polluting adjacent agricultural and natural landscapes thus decreasing their efficiency and sustainability.
2. The amount of dust coming from the surrounding areas increases in aquatic ecosystems.
3. Gradually increases water turbidity, temperature rises and the amount of oxygen decreases resulting in the loss of ecosystems self-cleaning feature.
4. In summer the dust spreading through the wind is subject to activation of allergic and a number of other diseases.

It should be noted that the damages are also conditioned by the feature of tuff stone extracted in the area. It is quite fragile, during the extraction large volumes of waste in various sizes appear, is unstable over temperature variations / quickly decomposes and turning into gravel or sand /. Small fractions of wastes are relatively light and are easily spread over great distances by wind or water.

Flood prevention and further sustainable management will significantly reduce direct and indirect contamination of aquatic ecosystems, in the result of which their sustainability protection ability and adaptation level will be restored to climate change conditions.

In collaboration with local communities direct measures will be developed for long-term flood prevention and mitigation of risks. Runoff canals will be cleaned of waste and household waste, garbage bins will be replaced for the collection of solid household waste, tree planting and soil layer strengthening sowing will be carried out along runoff canals. Lessons learned and best practices will be shared with the communities of the Republic that are exposed to flood risks associated with climate change.

This component task is to carry out measures that would reduce and manage the risk of flooding in Artik city and its adjacent communities

The activities will include:.

- Cleaning of 7,5 km long storm canals from waste and household waste picked up from stone pits through floods
- Replacement of bins along storm canals
- Tree planting along storm canals
- Signing of the contract on the collection of waste and care of planted trees with Artik city community municipality

Component 3. Raising awareness and knowledge level of population for the management of stone pit wastes and floods

Activities are aimed at forming a base knowledge on the opportunities of the recovery of degraded areas and benefits. In order to increase the effectiveness of the activities specialists both from higher educational institutions and both the Agricultural Support Marz (Regional) Centers will be involved. This approach will enable to combine environmental protection, agriculture and the urban economy efforts to develop a joint training program on the restoration of natural and agrolandscapes under climate change conditions and on raising the level of adaptation.

The training program will be based on the idea of the importance of interconnectedness of agricultural, natural landscapes, urban economy and human health and landscape adaptation under climate change. The provision of knowledge on measures aimed at the preservation and continuity of the outcomes of the current program will be highlighted.

Training program will provide a differentiated approach to the needs of different age groups and will develop knowledge enhancement programs for them.

Particular attention will be paid to the creation of groups possessing the necessary reserve of knowledge to be able to ensure the continuity of dissemination of knowledge during and after the project closure.

To increase work efficiency thematic guidelines and public information leaflets will be developed, published and provided to all interested parties.

Lecturer-listener based model will be used during awareness raising trainings which will make provided material perceptible through using different actions.

The component will contribute to strengthening the capacity of local media and environmental NGOs, through their involvement in project dissemination, propagation and implementation activities.

Given the Component's objectives and problem requiring solutions the activities will be mainly addressed to awareness and knowledge raising of those vulnerable groups that are directly related to project objectives, ways of achieving them, ensuring stability and continuity.

Based on lessons learnt from the projects implemented by EPIU and other organizations targeted groups will be selected in communities through needs assessment.

Community administration employees, members of farm households, teachers and high school students, the mass media, employees of stone pits operating in the area are determined as initial target groups. :

Community administration employees: In conformity with the law of the Republic of Armenia on Local Self-government community administrations have rather extensive rights to carry out environmental, reconstruction, health protective, construction and other activities within their administrative boundaries. Within the project raising the knowledge of the municipal councils and staff members will contribute to the effective implementation of the activities envisaged by the projects, outcome conservation and experience dissemination. At the same time decision-makers having the relevant knowledge will make such decisions in the future that would cause little damage to the environment and in the result to people's health.

Members of farm households: The zone of influence of the project is mainly agricultural which is carried out relatively on small plots There are very few large farms, which are able to organize awareness and knowledge raising events for their employees. The selected target group is the most polynomial and vulnerable as unsatisfactory social conditions restrict their opportunities to get sufficient knowledge on disaster prevention, rehabilitation of degraded areas and harmful effects of waste on human health. These target group members can most successfully spread their knowledge within communities.

Teachers and high school students: This target group is highlighted by the fact that they are the direct bearer and transmitter of knowledge. Teachers endowed with sufficient environmental knowledge (focusing the objectives of the project) can form stable mindset among students on the importance of environmental events and biodiversity conservation, while among high school students both to disseminate knowledge and to decide on getting professional education.

Mass media: Great is the role of this target group on the dissemination of information on the project, coverage of event, outcome analyses, propagation of positive experience, transparency and mobilization of stakeholders. Special training program will provide mass media with the necessary knowledge that will help them to represent the project's goals, objectives, outcomes and the importance of ensuring continuity to the broad strata of the society.

Stone pit employees: This target group is the direct holder of the consequences arising from the indiscriminate use of stone pits and waste pollution of the environment. The representation of environmental, social, economic and health problems and their solutions opportunities will raise their knowledge level and will contribute to be more actively involved in the suggestion of more environmentally safe events of the mines, development of activities and implementation process.

The common idea for all target groups is that the humanity can fight not only to mitigate climate changes, as well as to develop effective measures to increase the level of natural and agricultural landscapes adaptation.

The whole process of project implementation will be available for all strata of society. Modern information dissemination tools will be used for this. Regular information on the progress and outcomes of activities will be provided through the websites of the Ministry of Nature Protection, regional administrations and EPIU. Whistleblower hotlines of Ministry of Nature Protection, regional administrations and EPIU will make it possible to rapidly respond to all complaints with the participatory problem solving approach.

Component4. Project management

This component will support project management and efficient implementation. Monitoring, environmental and social risk management plans of the project will be developed and carried out. Midterm and final monitoring and independent audit of the project will be carried out. EPIU will sign agreements with community leaders for the protection of results with the definition of communities' obligations and responsibilities. If necessary, EPIU will sign contracts for provision of services, procurement of equipments and goods, construction of works etc. EPIU will implement supervision of the progress of the activities, project performance and quality.

Project/Programme Components	Expected Concrete Outputs	Expected Outcomes	Amount (US$)
1. **Reclamation and management of closed mine site**	1.1. Natural and agro landscape adaptation and sustainability to climate change increased	1.1.1. Restored soil cover of mine 1.1.2. The restored soil layer will be protected against the winds and intense rains adverse effects 1.1.3. The area will be provided with irrigation water	**745 000**

		1.1.4. Sustainability of the adjacent natural landscapes to climate change impacts increased 1.1.5. crop yield and crop quality of the adjacent agro landscapes increased 1.1.6 Adverse effects on the health of the population of adjacent communities decreased 1.1.7. Reduced flood risk 1.1.8. Favorable conditions created for the recreation of the residents 1.1.9 Forested area	
2. **Prevention and management of floods**	2.1 Flood risk threat to Artik city is minimized	2.1.1 Restored storm canals conveying heavy snowmelt and rainwater 2.1.2 The storm canals protected from household garbage jams 2.1.3 Improved sanitary condition of Artik city 2.1.4. Reduced risk of epidemics	350 000

3. **Raising awareness and knowledge level of population for the management of stone pit wastes and floods**	3.1Raising awareness and knowledge level of population on the recovery of agro landscapes and flood risk reduction	3.1.1. The level of knowledge on effective recovery methods of degraded natural and agro landscapes increased 3.1.2 The knowledge level of the population on natural and agro landscape adaptation to climate change increased 3.1.3 Increased knowledge level of the population on the occurrence and prevention possibilities of floods 3.1.4. Sustainable thinking formed on the importance of landscape adaptation to climate change in communities 3.1.5 The involvement of local media and environmental NGOs in the process of mitigating the negative effects of climate change increased 3.1.6. Project results available to all interested parties	100 000

4. **Project management**	4.1 Management and efficient implementation of the project 4.2 Monitoring, environmental and social risk management plans of the project will be developed and carried out	4.1.1 Management and efficient implementation of the project 4.2.2 Monitoring, environmental and social risk management plans of the project developed and carried out	101575
5. Project/Programme Execution cost			88805
6. Total Project/Programme Cost			1,385.380
7. Community contribution			63.000
Amount of Financing Requested			1,385.380

Project preparation grant (PPG) – 30000 USD

Projected Calendar:

Indicate the dates of the following milestones for the proposed project/programme

Milestones	Expected Dates
Start of Project/Programme Implementation	2017 September
Mid-term Review (if planned)	2018 December
Project/Programme Closing	2019 December
Terminal Evaluation	2020 April

PART II: PROJECT / PROGRAMME JUSTIFICATION

Global environmental benefits

The expected environmental benefits and impacts within the program are of great importance and will contribute to solving a number of environmental issues. Promoting the greater coordination, cooperation and expanding capacities, the project gives an opportunity to create exemplary political atmosphere which will give a chance to increase the adaptability of landscapes and settlements to the negative effects of anthropogenic and natural climate change. It will be implemented through the natural and agrolandscape recovery, sustainable management capacity building development and by increasing the efficiency of institutional structures.

The program will create a model for the preservation and restoration of biodiversity conservation which will unite agricultural and natural landscapes into one conservation planning process. In this regard, this will enable to identify and test "the best practice" which reinforces the use, stability and flexibility of natural resources. Promoting the creation of temporary and permanent workplaces in the region of Armenia with comparatively poor population the project will contribute to reducing poverty and welfare improvement, thus reducing the anthropogenic further pressure on vulnerable landscapes.

Natural disasters and climate changes have negative impact on the ecosystems of the area. The stream fall into Vardaqar reservoir damaging its ecosystem and decreasing reservoir's capacity. Reservoir is used for irrigation purposes, it covers 80 hectares with a capacity of 5 million cubic meters. Implementation of the program will also help prevent soil erosion, and conserve the ecosystems.

In addition to the direct benefits of Armenia's agricultural and natural biodiversity protection and guidance, the program will provide global advantages by developing and creating tools, experience and methodology within the program that will be globally available to all stakeholders ensuring the continuity of the program. The program will create age groups with necessary knowledge who will be able to share their knowledge with other interested communities after the end of the program. The program will promote to strengthen the capacities of local mass media and environmental NGOs. The inclusion of the best practice achieved by the five-year community development plans will contribute to the stability of the project outcomes. It is expected that adaptability and sustainability of natural and agricultural landscapes will be ensured through the recognition of the importance of biodiversity role and by displaying capabilities of possible natural disaster prevention under climate change by all stakeholders.

Social-economic situation and benefits

Poverty level is very high in the project area, extremely poor make up 9% of the population and the poor- 44%, which is above the national average. The number of children dying under one year of age is high which makes up 12%, while the maternal mortality rate is 2.7%. Disabled people constitute 12% of the population.

The main source of income is agriculture. Climate change and natural disasters are causing great harm both to the environment, and agricultural food production. Lands adjacent to communities are intensively exploited due to which the qualitative composition of the soil has changed. The recurring floods cause great damage to the region that wash residential and public buildings, lands, gardens, sheds, yards and streets, domestic animals. The dust has a negative impact on agricultural crops, adjacent forests and human health. 2016 flood caused more than US $ 210 000 damage to the communities of the region.

Economic benefits

Stone pit dust has negative impact on the health of the population as well as on the forests, arable land, hay meadows and pastures situated on the impact zone of floods. During the implementation of the project local population can be attracted as labor force that will be paid this increasing their income. Jobless women will be mainly involved in landscaping and reforestation activities.

The project will create the opportunity to prevent and minimize damage caused by natural disasters. Costs caused by floods for the reconstruction of buildings, backyard and this will be used for the needs of the families. More than 300

hectares of different types of lands situated in the impact zone of flooding will not be subjected to flooding and agricultural production and incomes will be increased.
The aims and objectives of the program are fully consistent with the National Strategy and Action Plan of RA's Biodiversity Conservation, Protection, Reproduction and Use, National Strategy and Action Plan to Combat Desertification in Armenia.
10 main strategic and other documents have been developed in Armenia which are directly connected with biodiversity and agrobiodiversity conservation and which relate to the proposed project intervention. These are:
1. Second National Environmental Action Programme of the Republic of Armenia (2008), which includes a number of actions concerning biodiversity conservation (inventory of biodiversity valuable areas, establishment of biodiversity monitoring system and database, assessment of the resources of the most significant flora and fauna species, genetic resources management etc.);
2. Strategy of the Republic of Armenia on Conservation, Protection, Reproduction and Use of Biological Diversity (2015), the main goal of the strategy is to ensure conservation, sustainable use and regeneration of the landscapes and biological diversity of the Republic for sustainable human development;
3. Strategy and state program of conservation and use of specially protected nature areas of the Republic of Armenia (2014) S
The main objectives of the in-situ conservation of biodiversity have been enlarged and clarified here. The action plan covers 5 chapters: improvement of legal field / legislation, improvement of management system, enlargement of PNAs network, improvement of financial- technical mechanisms, and improvement of staffing;
4. National Action Programme to Combat Desertification in Armenia(2014), which will address pressures from habitat loss, land use change and degradation, and unsteady water use, reduced. Minimise the rate of loss and degradation of natural habitats. Promote, conserve and restore the main forest ecosystems. Promote, conserve and restore the main wetland ecosystems. Restore the landscapes and their biodiversity degraded due to industrial activity;
5. Community Agricultural Resource Management and Competitiveness Project (2010-2020), the action plan includes 4 components: community pasture and livestock management system; agricultural advisory and community animal health services; competitive grants program; and, project management and monitoring and evaluation. The project is envisaged to be implemented in 6 Marzes of the Republic (Aragatsotn, Shirak, Lori, Tavush, Gegharquniq, Syuniq); and finally,
6. "National Strategy on Human Rights Protection (2012)". The strategy has the following main objectives: a) protection and development of human rights and fundamental freedoms, b) ensuring efficient mechanimsm for the protection of each person's rights and freedom under the jurisdiction of the Republic of Armenia c) Improvement of existing

legislation and proper application ensuring in line with international standards d)public awareness rising on human rights and their protection methods, e) promoting the protection of one's own rights.

7. The social-economic development program for Shirak region (2014-2017) –The project should contribute to solving urgent problems in the urban and rural communities of Shirak marz(creation of jobs, restoration of damaged buildings, solution of environmental problems, reconstruction of roads of city's streets and urban settlements, expansion of drinking and irrigation water pipelines, equal development of territories, improvement of infrastructures).

8. The social-economic development program for Artik city (2013-2016) - The four-year social economic development program for Artik city thoroughly describes the common understanding of the city's population and authorities on the main directions of city's development, sets out the priority objectives of city's development, introduces the existing problems and challenges, as well as the planned measures needed to overcome them in the medium-term perspective. When defining the priorities for community development available resources liabilities, local features, internal and external challenges, as well as projections of future developments were taken into account.

9. Water Supply and Sanitation Sector Project - Improvement of water supply systems of Shirak marz settlements, subproject (2015)

Implementation of this project will provide a safe, stable and reliable water supply of Artik town and surrounding villages. This project consists of 2 components: (i) rehabilitation and improvement of urban infrastructures, (ii) improvement of management and development, including gender-specific features. The project will contribute to poverty reduction (i) decreasing the number of waterborne diseases and medical care expenses, (ii) revealing women from time requiring homework-bringing water from remote places and water collection, allowing them to be more involved in social and economic activities; (iii) ensure safe, reliable and sustainable water supply, and (iv) improve the quality of life of households in all cities and villages of the project.

10. GEF-6 NATIONAL PORTFOLIO (2015) – Country priorities have been clarified on which project package have been developed which is planned to be implemented under STAR and out of the system of transparent allocation of resources (STAR).

All the activities of the project were developed in compliance with national technical standards, which do not contradict to the Environmental and Social Policy of the Fund.

At present reclamation works of stone pits by state and other donor organizations are not carried out. Some flood prevention works are being carried out by the state and municipal budgets in the northeastern part of the Republic in Haghartsin community of Aghstev river, in Tavush marz.

Project proposal is not a duplication of project / programme with other funding sources.

The 3rd component of the project proposal is related to the increase of knowledge and awareness of various target groups. For this purpose training programs will be developed for target groups having the possibility to share the gained knowledge among other concerned groups. After each training program effectiveness evaluation will be carried out by participants, while experts-outcome analyses. Positive and incomplete aspects of the trainings will be revealed based on which recommendations will be developed to improve the effectiveness of such courses.
Knowledge and awareness component will also focus on the dissemination of best practice through mass media and local self-government bodies. This event will be supported by the elaboration, publication and dissemination of public information leaflets and booklets.
Summary report will be posted in the websites of EPIU, Shirak municipality and Artik city to increase best practice accessibility on knowledge and awareness level.

During the whole development process of project concept, project budget and EPIU closely collaborated with Artik municipality and with the leaders of mines adjacent to communities and corresponding specialists. They provided us with the necessary information on the current situation of stone pits and storm canals, environmental, social and health damages, rehabilitation activities and implementation prices.

Initial data on demographics, socioeconomic status, the features of the work carried out by women, project-related knowledge level, needs and capacities was collected through relevant community executives.

The analysis conducted by us assures us that the project is in compliance with the Environmental and Social Policy and Gender Policy of the Fund.

The required amount is calculated on the comprehensive consultations with all stakeholders and on the basis of the current prices for the services and goods in the Armenia.

The proportionate increase will be available through the formation of a network of trained and authorized communities for sustainable management of natural and agricultural landscapes. The interagency cooperation, as well as the relation with other programs and projects will be improved at the country level.
During project development stage meetings and consultations with stakeholders and representatives of the local authorities stated that all parties are aware of the importance of the stability and further development of the project results. Community leaders are willing to provide manpower and machinery during project implementation, while after its end to protect and to develop the outcomes.
This program will provide data and methodology, which will enable Armenia's partners to use the best practices in the planned and ongoing work programs. Cooperation with non-governmental organizations, mass media, educational

institutions and other interested parties will contribute to innovations, stability, as well as the proportional increase in these areas.

Project area

As it was mentioned above, the project will be implemented Artik region of Shirak Marz. Artik city and 3 rural communities are located in the project impact zone with more than 24000 population. It is planned to carry out over 40 hectares of disused mine reclamation, improvement and cleaning, mending of 2 storm canals. This mine is located about 500 meters from the town of Artik and under the influence of strong winds pollutes the air in the city and adjacent communities, while the floods are causing great damage to the city.

Checklist of environmental and social principles	No further assessment required for compliance	Potential impacts and risks – further assessment and management required for compliance
Compliance with the Law	In compliance with the requirements of RA laws on environment and urban development	Environmental and urban development law requirements are ensured
Access and Equity	Project access will be ensured through mass media, websites of the Ministry of Nature Protection of the RA and EPIU	Flood risk eliminated in Artik town, the area of disused stone pit is restored, the adjacent natural and agricultural ecosystems are improved, improved health status of the population of Artik

		town and surrounding communities
Marginalized and Vulnerable Groups	Artik town and surrounding community dwellers	The residents of the area of influence of the program are protected from floods, air and soil pollution
Human Rights	In the field of use of natural resources and human health, human rights are protected by the appropriate laws	Human rights are protected in accordance with the legislation in the field of natural resources, there are no complaints about the violation of human rights
Gender Equality and Women's Empowerment	The principle of equal gender rights are maintained in the field of use of natural resources and health care	Women are involved in ongoing activities, their living and social conditions are improved, diseases are reduced
Core Labour Rights	Labor rights are protected by the Constitution of the RA and Civil Code of the RA are	Labor rights are protected and there are no complaints on the violations of the Constitution and the Civil Code
Indigenous Peoples	The project area of influence is mainly inhabited by	National discrimination is excluded, everybody enjoys

	Armenians	equal rights
Involuntary Resettlement	Project implementation does not provide for resettlement of residents	Project implementation contributed to the prevention of population resettlement
Protection of Natural Habitats	Conservation of biodiversity habitats is in compliance with the requirements of environmental legislation	Repetitive flooding prevention and cessation of stone pit emissions contribute to the enhancement of the adaptability of ecosystems and habitats stability
Conservation of Biological Diversity	Area restoration and flood prevention are in line with the principles of biodiversity conservation	Flood prevention and restoration of area contributed to the increase in the number and species composition of biodiversity
Climate Change	Implementation of the project contributes to the enhancement of ecosystem adaptation to climate change, natural disaster prevention and population health	Ecosystem ecological balance is ensured, adaptation level increased

	improvement	
Pollution Prevention and Resource Efficiency	Effective cooperation with the communities for the prevention of pollution of the environment and efficient use of natural resources	Environmental pollution is prevented, and the use of natural resources regulated
Public Health	Activities foreseen by the project impact positively on the health of the population	Prevention of environmental pollution and floods contribute to land restoration and improvement of public health
Physical and Cultural Heritage	Implementation of the program contributes to the preservation of natural and cultural heritage	Natural heritage (species registered in the Red Book of Armenia,endemic and rare plant and animal species, natural monuments) and cultural heritage(historical and cultural monuments, traditions) are efficiently protected
Lands and Soil Conservation	Lands are not subjected to water or physical degradation as a result of project	Land degradation prevented

	implementation	

PART III: IMPLEMENTATION ARRANGEMENTS

7 main strategic documents have been developed in Armenia, which are directly related to waste management, health protection, biodiversity and agro-biodiversity conservation, as well as to the proposed project proposal. These are:

- "Second National Environment Action Programme of the Republic of Armenia"
- "The National Strategy and Action Plan of Conservation, Protection, Reproduction and Use of Biological Diversity of the Republic of Armenia"
- "Strategy and National Action Plan to Combat Desertification in the Republic of Armenia"
- "Community Agro Resource Management and Competitiveness Project"
- "The Strategic Plan for Long-term Development for 2014-2025 of the Republic of Armenia"
- "Sustainable Development Strategy of Rural Community and Agriculture for the Period of 2010-2020 of the Republic of Armenia"
- "National Strategy on Human Rights Protection".

The project is aligned with AF's results framework as it solves:.

1. The problem on the pollution of the environment;
2. The problem of the protection of the population from natural disasters,
3. The problem of sustainability of agricultural, natural and aquatic landscapes,
4. Contributes to increasing the productivity of agro systems,
5. Contributes to the improvement of social and health problems of the population,
6. Contributes to the self-recovery level increase of natural landscapes and aquatic ecosystems in the result to adaptation increase to climate change.
7. improves the level of knowledge and awareness of the population,
8. contributes to the activation of non-governmental organizations and mass media,
9. contributes to the dissemination of best practices within the project,

10. Based on the requirements of environmental conventions
11. It is a pilot project and if successful can be replicated in other areas.

The stakeholders:

The main stakeholders are the Ministry of Nature Protection, The Ministry of Agriculture, Ministry of Territorial Administration and Development, local communities, community organizations, women's groups, farmers organizations and groups, youth groups, family business entities, environmental NGOs.

Gender issues

The project directly addresses to the solution of gender issues in the region. Most of the agricultural and cattle breeding works are carried out by women. It is envisaged to involve women in the activities which will increase their income, awareness and acquisition of new specialties.

Women will be involved in knowledge and awareness raising events. This approach will significantly improve the level of awareness and knowledge among women in relation to the increase of productivity and adaptation measures of natural and agrolandscapes to climate change. This will enable them to be widely involved in other similar projects after the end of the project.

The program will also directly affect the level of raising women's health by reducing environmental pollution caused by stone pit dust and other waste.

The establishment of the forest and park in the stone pit site will create favorable conditions for women to organize their leisure time.

Flood prevention will largely improve women's living conditions. The money that is spend on the repair of apartments and the acquisition of new property will be spent on other urgent issues.

As a result of the project the communities will have females possessing sufficient knowledge on the opportunities of restoration of degraded environment, who can apply their knowledge in their future endeavors.

After the end of the program the created new opportunities will require women's labor force for the implementation of forest and park maintenance work.

Project Objective(s)[1]	Project Objec Indicator(s)	Fund Outcome	Fund Outcome Indicator	Grant Amount (USD)
Reclamation and management of closed mine site	Restored mine area	Reduced exposure at national level to climate related hazards and threats	1. Relevant threat and hazard information generated and disseminated to stakeholders on a timely basis	745 000
Prevention and management of floods	Cleaned storm canals	**Outcome 4:** Increased adaptive capacity within relevant development and natural resource sectors	4.1. Development sectors' services responsive to evolving needs from changing and variable climate 4.2. Physical infrastructure improved to withstand climate change and variability-induced stress	350 000
Raising awareness and knowledge level of population for the management of stone pit wastes and floods	Number of communities and population	**Outcome 3:** Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level	3.1. Percentage of targeted population aware of predicted adverse impacts of climate change, and of appropriate responses 3.2. Modification in targeted population behaviour	100 000
Project Outcome(s)	**Project Outcome Indicator(s)**	**Fund Output**	**Fund Output Indicator**	**Grant Amount (USD)**

[1] The AF utilized OECD/DAC terminology for its results framework. Project proponents may use different terminology but the overall principle should still apply

Natural and agrolandscape adaptation and sustainability to climate change increased	1. Restored soil cover of mines 2. The area will be provided with irrigation water 3. crop yield and crop quality of the adjacent agrolandscapes increased 4 Adverse effects on the health of the population of adjacent communities decreased	***Output 4:*** Vulnerable physical, natural and social assets strengthened in response to climate change impacts, including variability	4.1.1. No. and type of health or social infrastructure developed or modified to respond to new conditions resulting from climate variability and change (by type)	
Flood risk threat to Artik city is minimized	1. Restored storm canals conveying heavy snowmelt and rainwater 2. Improved sanitary condition of Artik city 3. Reduced risk of epidemics	***Output 6:*** Targeted individual and community livelihood strategies strengthened in relation to climate change impacts, including variability	6.1.1.No. and type of adaptation assets (physical as well as in terms of knowledge) created in support of individual or community livelihood strategies 6.1.2. Type of income sources for households generated under climate change scenario	

Raising awareness and knowledge level of population on the recovery of agrolandscapes and flood risk reduction	1. The level of knowledge on effective recovery methods of degraded natural and agrolandscapes increased 2 The knowledge level of the population on natural and agrolandscape adaptation to climate change increased 3 Increased knowledge level of the popu ation on the */occurrence and prevention possibilities of floods 4. Sustainable thinking formed on the importance of landscape	***Output 2.2:*** Targeted population groups covered by adequate risk reduction systems	2.2.1. Percentage of population covered by adequate risk reduction systems 2.2.2. No. of people affected by climate variability	

	adaptation to climate change in communities 5 The involvement of local media and environmental NGOs in the process of mitigating the negative effects of climate change increased 6. Project results available to all interested parties			

PART IV: ENDORSEMENT BY GOVERNMENT AND CERTIFICATION BY THE IMPLEMENTING ENTITY

A. Record of endorsement on behalf of the government[2] *Provide the name and position of the government official and indicate date of endorsement. If this is a regional project/programme, list the endorsing officials all the participating countries. The endorsement letter(s) should be attached as an annex to the project/programme proposal. Please attach the endorsement letter(s) with this template; add as many participating governments if a regional project/programme:*

Mr. Artsvik Minasyan, Minister of Nature Protection of the Republic of Armenia	Date*: (11.01.2017)*

B. Implementing Entity certification *Provide the name and signature of the Implementing Entity Coordinator and the date of signature. Provide also the project/programme contact person's name, telephone number and email address*

[2] 6. Each Party shall designate and communicate to the secretariat the authority that will endorse on behalf of the national government the projects and programmes proposed by the implementing entities.

<table>
<tr><td colspan="2">

- I certify that this proposal has been prepared in accordance with guidelines provided by the Adaptation Fund Board, and prevailing National Development and Adaptation Plans ("Second National Environment Action Programme of the Republic of Armenia", "The National Strategy and Action Plan of Conservation, Protection, Reproduction and Use of Biological Diversity of the Republic of Armenia", "Strategy and National Action Plan to Combat Desertification in the Republic of Armenia", "Community Agro Resource Management and Competitiveness Project", "The Strategic Plan for Long-term Development for 2014-2025 of the Republic of Armenia", "Sustainable Development Strategy of Rural Community and Agriculture for the Period of 2010-2020 of the Republic of Armenia", "National Strategy on Human Rights Protection") and subject to the approval by the Adaptation Fund Board, commit to implementing the project/programme in compliance with the Environmental and Social Policy and the Gender Policy of the Adaptation Fund and on the understanding that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project/programme.

</td></tr>
<tr><td colspan="2">

Name & Signature Mr. Gevorg Nersisyan

Implementing Entity Coordinator

</td></tr>
<tr><td>Date: *(11.01.2017)*</td><td>Tel. and email: +37410 651631
info@cep.am</td></tr>
<tr><td colspan="2">Project Contact Person: Samvel Baloyan</td></tr>
</table>

Tel. and Email: +37410 651631, sbaloyan09@rambler.ru, info@cep.am