



## **Matched Small Grants Programme (MSGP) & Micro Environmental Grants (MEG)**

**The Caspian Sea: Restoring Depleted Fisheries and Consolidation of a Permanent Regional Environmental Governance Framework Project (CASPECO)**



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## **MSGP & MEG: background**

The Caspian Environment Programme (CEP) launched in 1998 is a regional umbrella environmental programme of the five Caspian Littoral States, Azerbaijan, I.R. Iran, Kazakhstan, Russia and Turkmenistan. The CEP aims at the sustainable development of the Caspian environment, including living resources and water quality, protecting human health and ecological integrity for the sake of future generations. The CEP is funded by the Caspian littoral governments; the Global Environmental Facility (GEF) through the United Nations Development Programme (UNDP), United Nations Environment Programme (UNEP) and the World Bank; the European Union and the growing participation of the private sector. The CEP's mission is to assist the Caspian littoral states to achieve the goal of environmentally sustainable development and management of the Caspian environment for the sake of long-term benefit for the Caspian inhabitants.

The CEP has succeeded in creation of a constructive regional dialogue on environment; development of knowledge based strategies, policies and action plans to deal with the environmental challenges and mobilizing resources towards environment. Towards creating the dialogue it has excelled in enabling the adoption of the Framework Convention for the Protection of the Marine Environment of the Caspian Sea (Tehran Convention) and the countries' steady progression towards stronger regional environmental collaboration inter alia through negotiating a number of ancillary protocols. To develop strategies and policies the CEP has carried out numerous analysis, researches and studies on the environment of the Caspian to determine the root causes of the challenges and to develop solutions in form of strategies, plans and policies to be implemented by the governments and other stakeholders. The Caspian Transboundary Diagnostic Analysis (TDA), National Caspian Action Plans (NCAPs), Strategic Action Programme, POPs Regional Action Plan are a few amongst the many of the CEP products. To mobilize resources the CEP has embedded, to the extent possible, the developed strategies and policies in the governmental decision making processes thus influencing an increase in environmental investment and activities in all the five littoral countries. It has developed a Portfolio of Priority Investment Projects for potential investors. It has also directly invested in environmental projects around the Sea through funding a number of POPS Elimination Projects and awarding grants in the framework of the Matched Small Grants Programme (MSGP) and Micro Environmental Grants (MEG).

The MSGP and MEG have been an integral component of the projects funded by the GEF under the CEP. During the first phase of CEP, 2000-2003, when it was operating out of its Programme Coordination Unit (PCU) in Baku, a total of 16 MSGP projects worth close to \$ 1 million were implemented. During 2004-2008, when the PCU moved to Tehran, an additional 12 MSGP projects worth more than \$ 5 million were implemented. MEGs numbered more than 60 during these periods. MSGP projects addressed major transboundary and national environmental issues such as decline in fisheries and bioresources, marine and land water and soil pollution and unsustainable development of coastal areas and communities. MEGS addressed environmental education and awareness rising.

The new phase of the GEF funded activities under the CEP, operating out of Astana, also includes provisions for the continuation of the MSGP and MEG. These activities are to be carried out under the GEF funded and UNDP implemented project namely the Caspian Sea: Restoring Depleted Fisheries and Consolidation of a Permanent Regional Environmental Governance Framework, short titled CASPECO. This project aims at strengthening the regional environmental governance through support to the Tehran Convention process and arresting the declining trend of bioresources through applying a new thinking to the sustainable management and conservation of the Caspian's bioresources.

The MSGP under CASPECO project is aimed at advancing small-scale investment or pilot projects to address urgent environmental problems in the Caspian region which can be implemented quickly. These grants help to develop capacity for further actions to improve the Caspian environment. The focus areas of the small-scale projects are unsustainable use of bioresources, threats to biodiversity, including those from invasive species, pollution, unsustainable coastal area development and climate change adaptation. Matched Small Grants are from USD 5,000 to 50,000. At least, 100% matching of the grant amount is mandatory and up to 100% of this matching funding can be "in kind". The total project budget will therefore range from USD 20,000 to USD 100,000 or more, if additional resources are identified by the applicants. MSGP are offered to applicants who are legal entities (governmental, private sector, or non-governmental organization based in the Caspian region). Proposals from municipal and regional government bodies and communities are encouraged. Applications from public-private partners or NGOs/CBOs in partnership with government or private sector are also eligible. All proposals will be evaluated by a committee made up of representatives from each Caspian coastal state and members of the Steering Committee. The projects in the Caspian Regions of Azerbaijan, I.R. Iran, Kazakhstan, Russia, and Turkmenistan will be supported. The Caspian Region is defined as coastal areas and 100 km inland of the sea, and also includes the major tributaries. Projects not located in the Caspian coastal region but with a tangible impact in the region may also apply.

The Micro Environmental Grants Program (MEG) of the CASPECO project is designed to raise public awareness, knowledge and understanding of the environmental problems facing the Caspian Sea. The MEG helps financing the small-scale projects with a real impact to address urgent environmental problems through awareness campaigns. The MEG awards from a minimum scale of USD 500 to maximum USD 3,000. Any group of people who has the capacity to raise public awareness is eligible. This includes NGOs, schools, community groups, specialist groups, associations, trade unions and others.

This booklet provides a brief on small-scale projects awarded with the Matched Small Grants and Micro Environmental Grants under the CEP.

# Matched Small Grants Programme implemented in 2000-2003



**Project Name: Clean water energy**  
**Project Budget: 61,310 USD**

The project was initiated by a foreign, private company. It is designed to adapt to Caspian conditions a technology for cleaning oil from underground water in severely contaminated areas. Results of the project are cleaning groundwater on 30 hectares of contaminated land in the coastal area and elimination of further contamination in amount of 3,000 cubic meters of oil products from a local oil refinery.



**Project Name: Introduction of oil pollution bio-destruction technology of soil, water and oil sludges**  
**Project Budget: 45,000 USD**

The project proposed the reduction of pollution from oil exploration and the remediation of polluted areas by introducing bio-remediation technology. The introduction of the Caspian-specific safe biological substance "Oleovorin" for cleaning 1.5 hectare of oil-waste storage and five hectares of oil-contaminated land was completed by the end of the project.

**Project Name: Re-cultivation of the soils contaminated with oil**  
**Project Budget: 47,250 USD**

The project is aimed at the reduction and restoration of oil-contaminated soils by designing and constructing a pilot installation, which will be using CO2 at critical parameters. After construction of the installation, an area of 0.5 hectares of polluted soils was cleaned.



**Project Name: Reduction of the threat to biodiversity in ecologically sensitive areas**  
**Project Budget: 69,385 USD**

The project, proposed by the state-run Maritime Organization is aimed at the improvement of navigation in and near the protected areas of Khazar nature reserve (a Ramsar Wetlands site) by the establishment of bathymetrical services to monitor depth in navigation channels. An increase in oil spill response capacity was a result of the project.

**Project Name: Re-processing Solid Cement and Concrete Wastes Materials from the Caspian Sea Shore**  
**Project Budget: 10,239 USD**



The project was a local private company's pilot initiative to reduce the pollution from concrete installations in the Caspian coastal area. The result of the project is a creation

of a production site for processing concrete and cement disposals, collected from oil production sites, and to sell the concrete for secondary use.

**Project Name: Decrease of the pollution from the sewage**  
**Project Budget: 99,700 USD**

The project discharged into the river Volga," proposed by the municipal enterprise, "Vodocanal," is aimed to improve the treatment of waste water from a district with a population of 100,000 by the partial renovation of existing water treatment system and the establishment of modern aeration system. The reduction of major polluters' concentration to permissible levels was a main achievement of the project.



**Project Name: Household Wastewater Management in Shahid Rejaii Neighborhood of the coastal city of Kiashahr**  
**Project Budget: 100,000 USD**



The project is designed to reduce waste water pollution entering Sefidrud River from a port town of 16,000, by using "Imhoff tank" technology. The reduction of 60% of pollution load is contributed to the preservation of surrounding national wetlands by the expected end of the project in June 2004.

**Project Name: Solid waste management in the coastal city of Ramsar**  
**Project Budget: 73,250 USD**

The establishment of the municipal solid waste separation and recycling program by active public participation was the main objective of the project and it was designed to reduce the environmental pressure on the Caspian Sea and coastal zone from municipal wastes by using "separation from the source" method and involving the local population in the process of separation of wastes at collection points. Up to 30% of wastes of Ramsar city was recycled on constant basis by the end of the project.

**Project Name: Brackish water culture of sturgeons in coastal regions of the Caspian Sea**  
**Project Budget: 96,000 USD**

The project contributed to the conservation of sturgeon by testing and identifying operational procedures for sturgeon production in brackish waters through the establishment of a rearing site and producing sturgeon fingerlings. Despite the bad weather conditions in Gilan province in winter months and consequent delays in construction of the rearing site, the fourth part of fingerlings was already stocked.

**Project Name: Procurement and installation of marine stationary nets for capturing of sturgeon breeders for the hatcheries**  
**Project Budget: 74,850 USD**

As a part of a larger WB initiative on increasing capacity to breed sturgeon, the project provided hatcheries with broodstock by constructing four stationery capturing points on sturgeon migratory paths on Kura river.

**Project Name: Increasing Depth and Bottom Clean-up Activities of Ural River**

**Project Budget: 60,000 USD**

The restoration of ecosystem and the cleaning of hatchery grounds in the Ural river was the goal of the project initiated by state Water Ways Enterprise. The project increased the company's dredging capacity by purchasing dredging equipment and performing dredging of the Ural River bed.

**Project Name: Establishing and Sustaining a drinkable water supply for Guba town and five settlements**

**Project Budget: 14,000 USD**

The project aim is to provide 35,000 people of the Guba region with clean drinking water through the improvement of filtration system at the water intake point and by the protection of water catchment area from livestock use. Project activities were cleaning the inlet tank, installing filtration system for a small town and protection of a catching area around the water system from animals.



**Project Name: Modular Complex elaboration to provide small settlements with drinking water**

**Project Budget: 70,000 USD**

The project is aimed at solving drinking water problems in small settlements. It included the design and preparation for production of a small treatment plant, as well as a pilot installation of one plant in Karalat village, which houses 1200 people.

**Project Name: Power and water supply with solar and wind energy utilization at Caspian Seashore**

**Project Budget: 22,470 USD**

The provision of drinking water and some electricity to a small village of 250 people in the desert areas of the Caspian coast was the objective of the project. It produced on a pilot basis, an integrated unit for providing water purification and electricity to remote settlements with small populations.

**Project Name: Provision of the population of the Caspian region of the Republic of Kazakhstan with quality drinking water**

**Project Budget: 40,000 USD**

The project is aimed at the improvement of the drinking water in the supply water pipeline "Atyrau-Mangystau". It included the determination and analysis of the water quality in the pipeline, and the designing and the construction of the pilot installation (10 c. m./day) to improve the current water quality in five villages along the pipeline.

# Matched Small Grants Programme implemented in 2004-2008



# Azerbaijan

**Project Number: MSGP-AZ05-04**

**Project Name: Clean up of oil-contaminated soil**

**Project Budget: 79,900 USD Total Grant: 39,900 USD**

## Project Summary:

Historically the first full-scaled industrial oil-field development across the Absheron Peninsula of Azerbaijan was launched over 130 years ago. More than one billion tons of "black gold" has been extracted in this region since that time. However, the improper technology of oil production, transportation and refinery resulted in uncontrolled contamination of ground and water ecosystems. The offshore and onshore oil wells of Azerbaijan are mostly located at the vicinity of the Baku bay and the Absheron peninsula. A majority of the active and abandoned oil wells are continuously leaking in this region. According to the State Oil Company of Azerbaijan Republic (SOCAR), there are 30,000 hectares of oil polluted sites in Azerbaijan.

In particular, the topsoil adjacent to the Baku business district has lost its vegetation coverage due to the oil spills. Oil products have a strong impact on all the elements of the ecosystem, which some include the ground water that ultimately brings pollutants into the coastal waters, the air and the nearby rivers. As the result, artificial oil-saturated lakes have been formed at the vicinity of these old on-shore oil fields (Binagadi, Surahany, Bibi-Eeybat) where the former fertile land once was covered by numerous vineyards and fig tree orchards. Various methods of clean up can be applied for different types of pollutions and for that a few billion dollars is needed.



In view of this, the oil clean up of man-made pollutions and particularly, topsoil clean up is one of the most important problems to be solved. This project aims to focus on elimination of pollutants in two hectares of land in the Absheron Peninsula. As a result, the state-of-the-art technologies and bio-products for the cleaning up of oil contaminated soils were used including Chemical Oxidation, Bioremediation, Solidification and Stabilization Methods. All of these activities were carried out under scientific parameters and the clean up process

was checked through continuous monitoring. The success of the clean up process was determined by the reduction of 95-98% hydrocarbons content of the soil. The project results could be used in the framework of large-scaled pilot projects not only in Azerbaijan but also in other Caspian countries

**Project Number: MSGPV-AZ10-05**

**Project Name: Promoting Sustainable Development in local communities of Caspian region through alternative sources of energy**

**Project Budget: 89,696 USD Total Grant: 39,800 USD**

### **Project Summary:**

Local communities of the Tazakend Municipality in Azerbaijan suffer from low standards of living, poverty and unsustainable use of resources as well as shortage of energy and fishing grounds. The illegal logging at the surrounding natural forests for heating and commercial purposes along with poaching of fish and waterfowls at the Caspian coast are the measures taken by the local population to combat their everyday problems. However, these practices negatively impact biological diversity and resources of the region. Given the perspectives of population growth, increase of the energy costs for gas and electricity and inflation, this impact will increase in the future. However the intensification of these negative impacts will lead to desertification and reduction in fishing resources at the local level. As a good indicator, illegal poaching by the local population constitutes annually over 1000 kg of fish and 1500 heads of waterfowls. Therefore, it is highly important to provide local communities with alternative energy and biological resources.



This project aims to establish a specialized farm for the cultivation of high growth wood species and to create a breeding fishery pond with the participation of local people. Farm will consist of two components: 1) agro-forestry plantation of high growth wood species (400-450 m<sup>3</sup>/year), situated at 6 ha of degraded municipal lands; 2) artificial pond in an area of 1 ha, for enclosed breeding of fish with the capacity of 500 kg/year. The project will also help to mitigate the adverse effects on the region's land and marine biological resources, prevent desertification due to the rehabilitation of degraded municipal lands,

stimulate the improvement of living standards and enable opening of new job opportunities for the local population. Project will supply the population of Tazakend municipality with alternative firewood, merchantable wood and fish resources in order to support sustainable community development and preserve natural forest resources of Devechi district in the North-East Azerbaijan. Currently, the project has purchased some of the required equipment, leveled the site with bulldozer and constructed part of the irrigation canal.

## Islamic Republic of Iran

**Project Number: MSGP-IR05-04**

**Project Name: Artificial Spawning of Rutilus Kutum, Grant**

**Project Budget: 97,300 USD Total Grant: 43,650 USD**

### Project Summary:

Kutum is a fish primarily living in the southern Caspian Sea. Its harvest ranges between 8000-9000 tons annually, only second to the Kilka catch in Iran. This fish was once abundant in the Caspian Sea and nearly 60% of the income from the bony fish fishery used to come from the Kutum catch. Unfortunately, its natural stocks are declining and in 1982 it dropped drastically to less than 1,000 tons per year. The sharp decline was due to the disruption of the spawning areas, illegal catch, and lack of adequate restocking programs. This means, new Kutum fingerlings are to be introduced to the sea in order to replenish the used or caught fish. This valuable species has two types of population in the Caspian Sea, the Spring Kutum and the Autumn Kutum. There have been hatcheries providing Spring Kutum fingerlings for the restocking purposes in the past.



However, the endangered Autumn type was mainly neglected. This type of Kutum enters the southern rivers of the Caspian Sea especially in the Anzali Wetland from November to March and stays there until it reaches sexual maturity. Unfortunately, destruction of the spawning areas has disturbed its natural reproduction cycle and thus, its population is drastically declining. Therefore, an emergency research planning is needed to rehabilitate the Autumn form. The artificial spawning of the Autumn type not only helps Iranian fisheries, but also contributes to the neighboring Caspian states as well.



The conservation and protection of the Autumn Kutum through a restocking program is highly advised. For this purpose, 200 Autumn Kutums, equal number of males and females, were captured during their migration season to the rivers. After they reached maturation, the most suitable Kutum fish were selected for egg stripping and fertilization. The eggs were transferred to fish farms. When the fingerlings were considered grown up, they were released into the natural environment. It is expected to release up to 2.5 million fingerlings to the Sea by the conclusion of

this project. The Iranian Fisheries Organization is planning to release more Kutum fingerlings in the Anzali Wetland as the result of this project in the future.

**Project Number: MSGPV-IR10-05**

**Project Name: Sustainable agro-ecosystem management through participatory integrated crop production & protection of rice fields**

**Project Budget: 88,000 USD Total Grant: 43,000 USD**

### **Project Summary:**

By the advent of the Green Revolution, pesticides became the dominant approach to plant protection in many other countries including Iran. This approach has not only failed to protect the crops in the past 60 years, but also has led to many negative impacts, such as pest breakouts and threats to the human health and environment. The more pesticides used, the more farmlands had to be sprayed. In some provinces, where the intensity of agriculture is quite high, there is a very dangerous concentration of pesticides. About 60 percent of the total pesticides sprayed in Iran, are used only in the 3 Iranian Caspian coastal provinces. About 26,000 tons of different pesticides are distributed between the farmers each year. Also, substantial amounts of pesticides are imported illegally, some of which are included in the list of banned chemicals. A similar spraying intensity occurs for certain fruits and vegetables, in particular in summer crops and greenhouses, where the number of applications is as high as 6-12 times a season. Since 1994, the Government of Iran has started a number of programs to reduce the use of pesticides. But many of them are not sustained, mainly due to the fact that they did not fully incorporate bottom-up participatory approaches and the relevant stakeholders failed to set in place an appropriate model for sustainable plant management at the farm level.



their own farms and consider their enhancement of their crop production.

The objective of this project is to introduce the Farmers Field School (FFS) approach to the rice paddy fields in Iranian Caspian Provinces. This method is quite effective in empowering the farmers to tackle many of their problems, reduce the costs of production and to increase incomes. Currently, 15 FFSs are established and the ongoing on site trainings are raising the awareness of the farmers on the risks involved with the application of harmful pesticides and thus could eliminate or drastically reduce their usage by introducing biological and endemic methods of combating pests. The farmers are learning how to analyse options for the management of their fields and

**Project Number: MSGPV-IR12-05**

**Project Name: Creation of a sperm bank for sturgeon breeders in the south of Caspian**

**Project Budget: 154,990 USD Total Grant: 30,000 USD**

### **Project Summary:**

The continuous sharp decline of sturgeon stocks has caused serious problems in the artificial sturgeon breeding programs, which in turn has affected fingerling release and rehabilitation of stocks in the rivers entering the Caspian Sea. Decline in the number of sturgeon catch has also reduced the availability of suitable breeders for artificial breeding. Apart from this, the genetic quality and diversity of these species have also suffered. During the catch season, the sturgeon hatcheries are faced with the problem of obtaining suitable male breeders. On the other hand, there are times when the male breeders are sufficient, but the number of female breeders is insufficient and thus, the harvested sperms from these breeders are not used properly.



This project aims to collect the excess sperm from sturgeon hatcheries, preserve them for long periods of time and make them available to sturgeon hatcheries when required. Currently, a small amount of high quality sturgeon sperm is collected from suitable breeders. However, greater amount of sperm will be collected during the next spawning season. The good quality sperms are to be transferred under refrigeration conditions to the laboratory at the institute. The sperm samples are studied once again in the lab. They are then mixed with specific substances and gradually

frozen through several stages in liquid nitrogen. Samples are then stored in large liquid nitrogen tanks. The stored samples are evaluated qualitatively and quantitatively for six months. As a result, sufficient amount of good quality sperms from all sturgeon species will be collected. The project is planning to buy a large liquid nitrogen tank for the collected sperms. Eventually, this project will enable all sturgeon hatcheries (government and non-government) to have access to suitable sperms and also provides grounds for international collaboration.

# Kazakhstan

**Project Number: MSGP-KZ01-04**

**Project Name: Conservation & Restoration of Caspian Sturgeon Stocks**

**Project Budget: 48,363 USD Total Grant: 20,032 USD**

## Project Summary:

The population of Caspian Sturgeon is falling drastically each year and despite the measures undertaken by the government of Kazakhstan, like tougher sanctions and penalties, introduction of a ban on commercial offshore fishing, artificial reproduction and release of young sturgeon into the sea, there has been no improvement in the condition of the Caspian sturgeon stocks. In this situation, it is extremely important to develop and locally implement different types of economic activities to help the sturgeon fisheries and to increase the sturgeon population. Artificial sturgeon farming is one of such economic instruments and methods to conserve the sturgeon stocks and to produce sturgeon products. Commercial sturgeon farming is now intensively developing worldwide with the best results achieved in France, Germany, Italy, USA and China. As of date, commercial sturgeon farming is not developed in Kazakhstan yet, because being a new trend of fishery for Kazakhstan, it is not included in the existing state economy development plans at the level of oblasts and districts, and the science of fishing industry does not involve any research of commercial sturgeon farming for lack of orders and financing.



Since, the development of commercial sturgeon farming is one of the best alternative ways to conserve and restore the sturgeon stocks; this project established an institutional basis for the development of commercial sturgeon farming in the Mangystau and Atyrau oblasts and a national resource training center was created to provide education on the fundamentals of the commercial sturgeon farming. As a result, a team of experts was formed and several projects for commercial sturgeon farming were prepared. An introductory course on

sturgeon farming has been offered to at least 100 students of Atyrau State University and two training seminars on this issue were held in Atyrau for students, NGOs, businessmen and entrepreneurs. Booklets, brochures and calendars have been published and the project has been widely publicized through newspaper articles and the internet. The project has successfully attracted investors and local governments to the project activities. Three proposals have been prepared by the entrepreneurs and two private fish carp farms are trying to cultivate sturgeon fingerlings.

**Project Number: MSGPV-KZ-01-05**

**Project Name: Cleaning the bottom of Ural River at the west-Kazakhstan Oblast**

**Project Budget: 60,000 USD Total Grant: 30,000 USD**

### **Project summary:**

One of the main problems in the Ural River is the erosion of its banks by the frequent floods. When a flood occurs, the loose soil and rocks of the banks slip into the water stream and subsequently, the trees with weakened roots and foundations fall into the river as well. During the spring season, the flooding is a prevalent phenomenon and the fallen debris and broken trunks of the trees clog the river flow and intensify the impact of flooding on adjacent lands. The fallen wreckage gradually sinks to the bottom of the river and produces hydrogen sulphide, which greatly worsens the hydrological regime of the river. The other adverse effect of the sunken trees is their blockage of river routes used by important fish species like sturgeon to reach their spawning areas at river upstreams.



The Ural River Bottom-cleaning project intends to collect the snags and logs, and other undesirable objects out of the river-bed within the territories of West-Kazakhstan oblast. The purpose of this project is to improve the hydrological conditions of Ural River. Bottom cleaning work is being executed by a snag crane with the carrying capacity of 10 tons. The project is underway at the section of the Ural River, which covers a wide area from Rubezhka village to Inder village within West-Kazakhstan oblast. The project will clean up over 5,200 tons of undesirable materials and ultimately the Ural River hydrological regime will improve. The project will prevent further clogging of the river-bed, so that the fish species, including sturgeon, could reach spawning areas more easily.

## Russian Federation

**Project Number: MSGP-RU02-04**

**Project Name: Supplying Sewage Purification Equipment to Floating Hotels in Volga River**

**Project Budget: 48,700 USD Total Grant: 19,800 USD**

### Project summary:

One of the important economic activities in the Astrakhan region is ecotourism. The beautiful landscape of the Volga River is a major tourist attraction and floating in a boat along the Volga for few days has a strong appeal to nature lovers. Fortunately, there are more than 25 floating hotels in the Volga delta providing such services to the tourists, but they are not properly equipped with sewage purification systems. So either they will pollute the river or have to deliver the wastes to special sewage collection boats. The usage of sewage collection boats is problematic at times due to the water level changes, which makes it difficult



for the boats to approach the floating hotels. Also, there are not enough specialized companies possessing ships in the Volga for sewage collection and the irregularity of sewage production of floating hotels, makes it almost impossible to perform well-planned collection of sewage. Moreover, due to the possibility of sewage overflow from the tanks, it is highly possible to have discharge of sewage into the Volga. Sometimes the accidental discharge of sewage reaches 40,000 cubic meters per year.



The objective of this project is to supply four floating hotels located in the Volga river delta with the equipment for the sewage purification. So, it was essential to select the appropriate equipment and coordinate their installation with the state authorities for certification and future monitoring and inspection. The best methods and technologies were selected in order to safely collect and environmentally recycle the wastes. The equipment was approved by the state authorities and is currently being operated in the four floating hotels. The results of the project have been widely

publicized and some of the other floating hotels in Volga delta have shown their interest in installing such equipment.

**Project Number: MSGPV-RU02-05**

**Project Name: Introduction of innovative technology of marketable fish production in the Tumak village**

**Project Budget: 100,000 USD USD Total Grant: 37,500 USD**

**Project summary:**

During the last several years a rapid reduction of fish stocks, including sturgeon, is observed in the Caspian Sea region, caused by irrational use of aquatic bio-resources and poaching. As the population living in the Volga-Caspian basin was traditionally engaged in fishing and fish processing, decline in fish stocks leads to overexploitation of existing fish stocks, halting or even closing of fish processing plants. This leads to the loss of jobs, social tension and unsustainable development of territories. In particular in the Tumak village there are no lands for agricultural production. Due to the lack of proper conditions

for agriculture, the population is occupied by poaching in the Volga River delta and the Northern Caspian Sea. The above mentioned problems have resulted in decrease of employment from 1200 to 200 people. Similar situation is observed throughout the Astrakhan oblast.



This project facilitates the establishment of a fish-farm for intensive growing of marketable fish species in closed pools and ponds through the usage of existing idle waste water treatment plant in the Tumak village. The project aims to reduce the loads on natural biological resources and contribute to sustainable development of the Caspian region by introducing an ecologically safe technology for intensive growing of marketable fish and creation of new job opportunities for the local population. The project is to construct a pond heating system, purchase and assemble

the equipment for the fish-farming technology (aeration and water supply system) and construct plastic cover for the pool. Also, it intends to establish a fish processing line (filleted fish, fish meal, and canned fish) and its own feeds (growing of grain-crops on pond fields and preparing feeds using existing production areas). This project is at its early stages and currently, the reservoir is filled with water and some fish fries are released into it.

## Turkmenistan

**Project Number: MSGP-TK01-04**

**Project Name: Breeding *Artemia Salina* in Ponds**

**Project Budget: 57,190 USD Total Grant: 26,460 USD**

### Project summary:

The Turkmenistan coastal zone of the Caspian Sea, better known as the Balkan Velayat, lacks adequate water resources for agricultural purposes and the boom in industrial activities of the Soviet era has subsided after the dissolution of the USSR and the establishment of the new states. Due to the ensuing economic recession and unemployment, the local residents more and more have turned to the sea for their livelihoods. In this perspective, *artemia* has become a viable commercial source of food for various valuable species of fish and shrimps. The rapid development of aquaculture has increased the need for *artemia* breeding. In Turkmenistan, a Belgian company began collecting *artemia* cysts from the surface of Karabogazgol Gulf, but due to the higher mineralization of water in the gulf, the *artemia* population has drastically reduced and probably it will disappear in the future. Therefore, it is quite essential to begin artificial cultivation of *artemia*.



The objective of this project is to improve the socio-economic conditions of the coastal population of Turkmenistan through artificial breeding of *artemia* at the coastal area of the Caspian Sea, near the Karabogazgol strait. The results of this project will serve as an initial scientific pilot site for the further development of *artemia* cysts production and an alternative source of income-generating activity for the local population. *Artemia* has a huge nutritional value connected with its high contents of proteins, carbohydrates, amino acids and vitamins. It could be used as a feed for the growth of young valuable species of fishes and shrimps. It also has some usage in pharmaceutical and perfume industries. Thus, the necessary equipment was purchased, the ponds for breeding of *artemia* were constructed and the all the related facilities like inflow canals and dams were established. The project is at the stage that it could introduce the *artemia* cysts for breeding processes to the ponds. The results will be closely analyzed to determine the best food and the most appropriate procedure for breeding. It is envisioned to sell 7 to 8 tons of *artemia* at the conclusion of the project.

**Project Number: MSGP-TK02-04**

**Project Name: Potable Water for Inhabitants of Goyudjik Settlement**

**Project Budget: 58,475 USD Total Grant: 28,995 USD**

**Project summary:**

The southwestern region of the Caspian, namely the Western Turkmen lowland, is covered with sand, clay and saline soil. The groundwater is scarce and the average annual precipitation is about 150 mm. So, the region always feels a deficit of potable and irrigation water. Goyudjik settlement is located in this region. Near the settlement, there is a manganese mine. There are wells near this mine, where water is extracted. There is no drinking water in the area around the settlement. The inhabitants of the settlement consume potable water delivered by trucks. One truck of water with a volume 5 cubic meters costs 250 000 manats, which is very expensive for ordinary families.



The objective of this project is to provide potable water either from the mining area or from the sea in order to combat the shortage of drinking water in the region. Originally, it was planned to extract potable and irrigated water from a well at the manganese mining area. However, the water analysis showed that the mining water had too much impurity; so the attention was turned to the distillation of sea water. The project aims to obtain potable and irrigation water for the inhabitants of a settlement and to supply drinking-water to 500 families by collecting and cleaning the brackish water and then desalinating the water with the use of the electrical dialysis unit. Thus, the necessary equipment like water tank, tubes, pumps and the distilling plant was purchased. Then the equipment was transported and installed at the project site. The sea water and the distilled water samples are being analyzed regularly and the distilled water samples have passed the stated standards for irrigation and drinking water. Currently, the project is at its final stages to operate at full capacity and deliver the much needed potable water to the settlement. It is hoped that with the successful implementation of this project, the other settlements in the area could use the same procedure for obtaining drinking water.

**Project Number: MSGPV-TK01-05**

**Project Name: Gathering, sorting & processing of plastic waste materials in Turkmenbashi city**

**Project Budget: 97,200 USD Total Grant: 40,000 USD**

### **Project summary:**

The ever-increasing use of plastic materials in the world has resulted in unprecedented amounts of plastic waste. Although plastic materials are light and could easily be formed into various shapes and sizes, their disposal is rather difficult and unlike regular household garbage, it will take a long time to disintegrate. Burning is an alternative method of plastic-waste disposal, but this would release considerable amounts of hazardous substances into the environment like carbon monoxide, which prevents oxygen to reach our heart and brain. Some plastics even have materials which could harm people with asthma and bronchitis. The urban wastes in Turkmenbashi City are either land filled, dumped or burned. Currently, plastic wastes are burned along with other domestic wastes. The predominant winds worsen the situation by bringing the hazardous fumes and plumes toward the city and the sea shores. As a result, the population of Turkmenbashi City and the coastal environment suffer the most. So, one of the best alternatives is the recycling of used plastics.



A project was developed to protect the people's health and the environment by reducing hazardous toxic substances resulting from plastic incineration. This project intends to recycle the plastic wastes in the Turkmenbashi City and collect appropriate plastic materials from the 92 garbage containers and a major dumping site on the highlands of the city. To achieve this goal, it is necessary to sort the garbage, and in particular, take plastic waste materials out of garbage and process them into plastic goods for every day uses like clothing hangers. The decision to make plastic hangers for clothes was made after conducting a marketing research in Turkmenistan; especially in the city of Turkmenbashi . As a result of this project, at least 100 tons of plastic waste products will be collected and utilized annually. This will be carried

out by gathering plastic wastes with the assistance of the municipality. Then the sorting, processing and manufacturing of plastic products will be conducted. This project is at its early stages and currently the grantee is purchasing the required equipment.

# Micro Environmental Grants Programme implemented in 2004-2008



## Azerbaijan

**Project Number: MEGI-AZ18-04**

**Project Name: Education of Growing up Youth on Preservation of the Environment and in Particular Ecologies of the Caspian Sea**

**Project Budget: 3,840 USD Total Grant: 2,960 USD**

### Project Summary:

Rich natural resources of the Caspian Sea belong to its five littoral countries. Despite of their political and social differences, all five countries agree on an urgent need to save the Caspian environment. The ecological problems of the region are mostly man-made due to the mismanagement and excessive use of natural resources. With the collapse of the Soviet Union, the newly independent countries, Azerbaijan, Kazakhstan, Russia, and Turkmenistan, experienced new economic challenges which complicated the already weak management plans for the protection of the Caspian environment. In the post-Soviet era, the illegal fishing and pollution are on the rise. One of the principal causes of environmental deterioration is the old perception that the natural resources are inexhaustible. But today, we can see the misleading notion of that concept. Therefore, public awareness is an indispensable part of an environmental protection plan and the focus on education of the children is essential.



This project was prepared and presented through educational materials to the school children of Sumgayit city in Azerbaijan. It was important to let the children understand about the ecology of the Caspian Sea and the legal obligations of the Azerbaijan citizens towards its protection. Lectures, documentary films, activities, along with round table discussions and a drawing contest were conducted. The results indicate an improvement in the environmental awareness of children.

**Project Number: MEGI-AZ26-04**

**Project Name: Prevention of Illegal Fishery in the Districts of Neftchala and Lankaran**

**Project Budget: 4,480 USD Total Grant: 2,940 USD**

### Project Summary:



Under the laws of the Azerbaijan Republic, the fishery, fish stock and fish hunting are especially regulated. Unfortunately the people living near the shores do not abide by the fishing rules and they harm the nature and its biodiversity. This problem is significant in the Neftchala and Lankaran district in Azerbaijan. According to the legislation, only licensed people are permitted to engage in fishing activities as a profession.

There are limitations to when, where and how much fish can be caught. Regrettably, the local people look the other way when it comes to illegal fishing and the local organizations close their eyes or create some kind of special conditions justifying these activities. It is unfortunate that they don't fully understand the enormous long term consequences of their actions on the environment.

Due to the importance of illegal fishing, the focus of this project was on public awareness, especially for the fishermen and the youths on its negative consequences on the fishing resources. Therefore, mitigation methods were provided through public campaigns with the cooperation of the State Fish Protection Service among the youths of Neftchala and Lankaran. Brochures, booklets and posters were also published.

**Project Number: MEGII-AZ16-05**

**Project Name: Increasing Juridical Knowledge on Ecological Protection of Caspian**

**Project Budget: 5,862 USD Total Grant: 2,912 USD**

The Caspian Sea is the largest enclosed water basin in the world. Its top environmental problems are sea water level fluctuations, reduction in sturgeon stocks and pollution. Lack of adequate regulations and absence of inter-sectoral cooperation are also contributing to the deterioration of the ecosystem. Therefore, municipality workers who are entrusted with clean up and protection of the environment are needed to enhance their awareness on the ecological problems of the Caspian Sea.

This project was designed to encourage their participation in the protection of live resources and the improvement of sea water quality. The first step was to collect all the related materials like the legislations, statistical data, documents of State Committee on Ecology and the National Implementation Plan. Then, further steps were taken towards the creation of a modern legal base and an organizational structure for the current pollution control system in Azerbaijan and the management of pollutants' emission to the environment. Seminars were arranged in municipalities of Sumgayit city, Sabunchi and the Azizbeyov district of Baku to enhance the acquaintance of municipal worker with the current problems and to find a strategy to combat them.

**Project Number: MEGII- AZ19-05**

**Project Name: To create Conditions for Inhabitation of Birds on the Seashores**

**Project Budget: 2,050 USD Total Grant: 1,850 USD**

### **Project Summary:**

The biodiversity of the Caspian Sea is being threatened as the result of soil contamination, water pollution, release of harmful waste into the inflowing rivers and illegal hunting. The destruction of the natural environment has prevented the birds, especially sea-gulls and animals like snakes and tortoises to settle in these areas. In addition, the destruction of bird nests by humans, especially the



children, shows its negative effect on the decline of bio-variety at the seashores. These problems are quite evident in the Absheron peninsula, due to its high human population.

In order to improve the situation, booklets were published and distributed among the stakeholders. The staff members of the project were trained to inform the youth and the people about the projects aims and objectives. Another major task was to increase the publics' awareness and to have their participation to protect the biodiversity in partnership with municipalities and governmental bodies. Also, local residents participated in forms of volunteer groups in planting more than 300 pine trees. The successful results of this campaign were widely shared with journalists and the mass media.

**Project Number: MEGIII-AZ03-05**

**Project Name: Religion and Nature**

**Project Budget: 2,220 USD . Total Grant: 2,220 USD**

### **Project Summary:**



The deterioration of the environmental conditions due to the degradation of biodiversity and increasing man-made pollution is a serious issue in the Caspian region. It is highly important to increase the level of awareness and environmental activities of the Azerbaijan population. One of the most effective ecological campaigns is to conduct an environmental awareness program for the children and to have an intensive involvement of teenagers in some of the environmental protection activities. Educating the younger generation on social and humanitarian aspects

of life and our coexistence with nature could alter the futures fate of our natural resources. It is necessary to provide them with basic knowledge about the interaction of humans and its environment and to create a positive atmosphere for their participation in social and environmental activities.

The active and creative involvement of the children in the public and environmental protective activities was emphasized through the collection of their drawings in a contest and presenting their artistic works in an art exhibition on the topic of "Religion and Nature". Also, a theatrical play about humans and nature was prepared and conducted for the children.

**Project Number: MEGIII-AZ10-05**

**Project Name: Caspian in the National Legends of Coastal Communities of Azerbaijan**

**Project Budget: 4,580 USD Total Grant: 2,980 USD**

### **Project Summary:**

The Caspian Sea is the largest enclosed water reservoir in the world, which is uniquely located on the borderlines of two continents, Asia and Europe. The Caspian Sea from

ancient times has also played a key role as a major intersection of trade - routes between the East and the West. Azerbaijan has been a favorite destination for sailors, merchants, scientists and tourists from the four corners of the world. Many interesting stories have been told about their journeys to the Caspian region. The people living on Apsheron (the old city, Shirakhani, Gobustan, Primorsk) also have a great deal of travel diaries and legends about tourists coming from Asia and Europe. Moreover, there are documents about the role of various religions on the protection of the environment and the exchange of the cultural and religious values. On the northern parts of Azerbaijan (Siyazan, Devechi Khahmaz, Gusar), there are stories and legends concerning sacred places, sea inhabitants, sturgeons and caviar, seals, magic forces of the sea and the courage of the fishermen. Also, the southern part of the country (Salyan, Nefhala, Massalli, Astara, Lenkoran) have interesting stories about gold fish, sturgeons, wetland birds and sea travel.

It was then decided to undertake the task of collecting these legends, myths, jokes, folklore and unique facts from life of the coastal communities of the Azerbaijan Sector of the Caspian through interviews, questionnaires and library searches. The selected ones which are related to the environment of the Caspian Sea and the local resident's beliefs and values will be put on a database along with materials and interesting photos. When this information is completely collected and entered in the database it will be available for the use of the public.

**Project Number: MEGIV-AZ05-06**

**Project Name: Training of the farmers to integrated Pest Control**

**Project Budget: 5,728 USD Total Grant: 3,000 USD**

### **Project Summary:**



Quba-Khachmaz is the biggest zone for growing fruits and vegetables in Azerbaijan. After the collapse of the Soviet Union, farming industries were established here. However, the farmers without any governmental supervision began to use highly toxic chemicals, pest killers and insecticides in order to increase their agricultural crops. Unfortunately, these substances are destroying useful fauna and flora of the region and the pests are increasingly becoming adapted to harmful substances. As a result the soil and environment suffer

from major contamination and the chemicals dissolve and flow with the water into the rivers and the Caspian Sea. Ultimately, the concentrated toxic substances in the fruits and vegetables will adversely affect the human health.

The training of farmers on the selective use of agro-technical, biological and chemical methods in Quba-Khachmaz zone is essential. Therefore, this project intends to reduce chemical treatment of the gardens through the upgrading of ecological education among the farmers in this area. Its task includes promoting of integrated pest management and showing the proper usage of helpful insects against pests with the minimum dosage of insecticides. Interesting and colorful calendars and booklets are prepared for farmers that would introduce these friendly insects in a simple and easy to understand language. Eventually, this will lead to the reduction of contamination in the environment with less chemical substances and lower threat to biodiversity of the Caspian region.

**Project Number: MEGIV-AZ07-06**

**Project Name: Ecomult – children ecological cartoons**

**Project Budget: 3,606 USD Total Grant: 2,996 USD**

### **Project Summary:**

Although, the ecological status of the Caspian Sea is turning for the worse, the children of the Azerbaijan Republic are not adequately informed about the importance of this beautiful ecosystem. Extra-curriculum awareness programs and activities should supplement the regular educational classes. For many years, the organization "Gulum" has been working in children's ecological programs "Khazar" dedicated to the problems of the Caspian Sea. They have published colorful textbooks and educational materials for kindergartens and pre-schools. Also, they established the "Museum of Caspian Seals" and published books and posters.

However, there is a lack of adequate visual aids in form of videos to attract the attention of the small children in understanding what is going on in their coastlines. Thus, 3 short cartoons on the general ecological issues of the Caspian Sea are being produced. They will touch upon some environmental issues like pollution; destruction of habitats and exploitation of the shorelines. These issues will be transformed into the children language and will be presented to them in interesting and colorful cartoons. The cartoons will have no words in order to be understood by the children of all the Caspian littoral countries.

## **Islamic Republic of Iran**

**Project Number: MEGI-IR01-04**

**Project Name: Training Local Teachers about Caspian Environmental Issues**

**Project Budget: 2,800 USD Total Grant: 2,800 USD**

### **Project Summary:**

Environmental Education is not well developed in the Iranian schools. Although many teachers, especially biology and geography teachers are doing their best, they need to improve their ecological knowledge. They should focus on the human interactions with the environment and proper use of natural resources. The best opportunity for them is to attend related training courses and workshops on how natural environments function and, particularly, how human beings can manage their behavior and ecosystems in order to live sustainably.



Training materials of the two-day training workshops for biology and geography teachers on the environmental problems of the Caspian Sea in the coastal areas of Iran were developed. As a result, six two-day training workshops were conducted for teachers on the environmental issues of the Caspian Sea with the cooperation of Gilan Department of the Environment and the Wetland Educational Center. The Anzali Wetland is a unique and rare habitat for many migrating birds in the region. This wetland was selected as the visiting site. Lectures and educational materials on ecosystem, wetland, migrating birds, energy

levels and the food chain were provided for the workshops. Also, a tour of the Anzali Wetland on motorboats was conducted.

**Project Number: MEGI-IR13-04**

**Project Name: Improving the Environmental Knowledge of Clergies**

**Project Budget: 6,000 USD Total Grant: 3,000 USD**

### **Project Summary:**

Iran is relatively a religious society, where the clergies have considerable impact on the beliefs and social behavior of the ordinary people. However, they are not well informed about the environmental problems of the Caspian region and the means to solve them. Also, it is highly effective to highlight the importance of the environment in the Islamic laws and traditions.

Although the idea of enhancing the environmental knowledge of the clergies in Gilan Province was very interesting and it was welcomed by all the involved parties. Unfortunately, the project was canceled due to the unexpected personal problems for the project manager. It is hoped that the idea can be pursued in the future.

**Project Number: MEGII-IR07-05**

**Project Name: Issuance of Two Environmental Books for Children under Age of 7**

**Project Budget: 3,450 USD Total Grant: 2,650 USD**

### **Project Summary:**



Children are the most receptive part of the society to new ideas and their language is very special and sensitive. They prefer to learn from a simple yet inquisitive perspective. In kindergartens, teaching the children through colorful books can be the most important method of communication. One of the main root causes of environmental problems is the lack of awareness, especially at an age, which the social character of the individual is being shaped. This is very true about children under the age of 7.

The publication of two books on biodiversity and water quality of the Caspian Sea for children under the age of 7 seemed to be a worthwhile endeavor. The texts were written using a poetic style mainly understood by children. After the publication of the books, a training workshop for the teachers was conducted and the books were distributed amongst the kindergartens and primary schools in the Mazandaran and Gilan Provinces, free of charge. The books were warmly welcomed by the children and more editions are requested by the kindergarteners.

**Project Number: MEGII-IR10-05**

**Project Name: Environmental Training of Women Living near Gorgan Roud River**

**Project Budget: 2,600 USD Total Grant: 2,600 USD**

## Project Summary:

The Gorgan Round River is one of the most important rivers of the Golestan province. The river originates from the eastern mountains of the province and enters into the Caspian Sea flowing through more than 150 Km. The river is an important breeding ground for many precious fish such as the Roach Rutilus and is a migrating route for fish from the sturgeon family. At the present time about 12 km of the river is being protected by the Department of Environment. There are many villages along the river whose residents lack adequate knowledge on the ecological values of the river. Women are even less aware of these values although they have a greater impact on this ecosystem due to their economic activities. They include the use of detergents in the river to wash and clean their personal belongings and household products.



There is clearly a need to enhance women's knowledge on the ecological importance of the Gorgan River and the consequences of the man-made pollution discharged into the river. Ten villages along the Gorgan River were involved in the project. The public awareness activities included training meetings for the local women and the distribution of posters and brochures. Important issues that were discussed in the trainings were elaborated in a manner to help them comprehend the major negative impacts they bring to the ecosystem. Major factors like disposing of solid domestic wastes and detergents into the rivers were talked about. It was greatly emphasized how the fish in the river and the birds in the area are being affected. Also, the excessive hunting that takes place along the river banks was brought to the people's attention.

**Project Number: MEGII-IR13-05**

**Project Name: Collection of Caspian Stories in the Iranian Caspian Provinces**

**Project Budget: 570 USD Total Grant: 570 USD**

## Project Summary:

Folkloric stories are the connecting bridge between the current generation and the previous generations. These stories are generally passed on to the next generation verbally and some of them are available in written forms. For example, an ancient tale is about a married old couple who for years tried to have a child. They were not very wealthy, but had enough to survive. One day the man went to the sea and caught a beautiful big golden fish. He brought the fish home, but couldn't bear to kill it, besides the fact that they were very hungry. Needless to say, they released the golden fish back into the sea. That night, the man and the woman had a dream that they are going to have a son. The next morning when the old man went to the beach, he saw a little boy sitting in the sand smiling at him. When he approached the boy, a giant golden fish came out of the water and told the man, "Since you spared me my son, I have granted what you and your wife have been wishing for. A son of your own." The moral of this old tale is that we have to coexist with nature. We both have mutual needs, and we have to care for all living beings. It is quite important to preserve these stories in order to protect and preserve the cultural identity of ethnic groups and nationalities. Therefore, the identification of Caspian folkloric stories is an endeavor aimed for the protection of the Caspian cultural heritage, especially its emphasis on the protection of the environment and preservation of natural resources.

This project began with the library research in Tehran and several Caspian coastal cities of Iran. Then a group of researchers visited local people, especially the elderly who have preserved some of the valuable tales, fables, forgotten historical events, folklore, traditions and fictions in their hearts. After several months of research, the collected information was screened and those related to the Caspian environment directly or indirectly were separated into two categories. This study helped to create a linkage between environmental issues of the Caspian Sea with the beliefs and traditions of the local people. The old tale about the golden fish and the boy is a good example.

**Project Number: MEGIII-IR07-05**

**Project Name: Design and Publish of Poster on POPs, Introducing their Hazardous Impacts on Marine Environment**

**Project Budget: 3,000 USD Total Grant: 3,000 USD**

### **Project Summary:**



Since before 2500 BC, humans have used pesticides to prevent damage to their crops. The first known pesticide was elemental sulfur dusting used in Sumeria about 4,500 years ago. By the 15th century, toxic chemicals such as arsenic, mercury and lead were being applied to crops to kill pests. In the 17th century, nicotine sulfate was extracted from tobacco leaves for use as an insecticide. The 19th century saw the introduction of two more natural pesticides, the pyrethrum which is derived from chrysanthemums, and rotenone which is derived from the roots of tropical vegetables. In 1939, Paul Müller discovered that DDT was a very effective insecticide. It quickly became the most widely-used pesticide in the world. However, in the 1960s, it was discovered that DDT was preventing many fish-eating birds from reproducing which was a huge threat to the biodiversity. Rachel Carson wrote the best-selling book *Silent Spring* about biological magnification. DDT is now banned in at least 86 countries, but it is still used in some developing nations to prevent malaria and other tropical diseases by killing mosquitoes and other disease-carrying insects. Pesticide use has increased 50-fold since 1950, and 2.5 million tons of industrial pesticides are now used each year. Iran is a developing country, which uses large amounts of pesticides in its agricultural activities. Some of these pesticides are regarded as Persistent Organic Pollutants (POPs) and they are highly toxic. The use of POPs in the Caspian coastal areas of Iran is very prevalent without knowing its full consequences.

Therefore, the enhancement of a public awareness through the distribution of posters and brochures as well as conducting seminars for the related stakeholders, especially the farmers on the issue of POPs is very constructive. The posters were distributed among the stakeholders. They included the universities, farmers, manufacturing industries, City Councils, and Rural Islamic Councils in the coastal provinces of Iran (Gilan, Mazandaran and Golestan). Also, the workshops were held in the capitals of each province to explain the hazards of POPs and the means to reduce or eliminate their usage.

**Project Number: MEGIII-IR14-05**

**Project Name: Empowerment of Rural Communities in Waste Management and Recycling of Materials in Central Part of Nowshahr Township Case study: Molkar, Anarvar and HamzedeH Villages**

**Project Budget: 3,000 USD Total Grant: 3,000 USD**

## **Project Summary:**

The Caspian provinces of Iran due to their geological characteristics and high level of underground water have difficulty in sanitary disposal of solid wastes. On the other hand, the high humidity of the soil and air makes it difficult to transfer them into compost materials. Hence, the disposal of solid waste is a major problem in these provinces in terms of water, soil and ambient pollution, as well as health risks being involved. The widespread dumping of solid waste, constructional residues and other forms of waste on the coastal areas, along the river banks, forests and roads are quite evident in the urban and rural areas of the Iranian Caspian provinces. It seems there is a lack of proper waste management in these areas.

Moreover, the local residents and even some of the local authorities are not well aware of the new methods of waste management. This project has envisioned improving the public awareness on the issue of recycling domestic solid wastes and other proper methods of waste management in the rural areas. Some of these methods are separation of waste at the source, recycling, and the reuse of bottles, jars, etc... Working groups are established and training courses are scheduled in order to mitigate the ensuing pollution problems.

**Project Number: MEGIV-IR07-06**

**Project Name: "Mahi Sefid" the Jewel of Caspian Sea**

**Project Budget: 6,000 USD Total Grant: 3,000 USD**

## **Project Summary:**

The Kutum also known as "Mahi Sefid" in Persian is a medium sized fresh-water and brackish-water fish, native to the Caspian Sea. It is a subspecies of the Black Sea Roach *Rutilus*. It is typically a medium sized fish, reaching 45-55 cm in length, rarely 70 cm, and weighing up to 4.00 or 5.00 kg. It used to be very common and was harvested commercially. Its flesh and roe is enjoyed as food, and highly prized in Gilan and Mazandaran provinces in Iran. Just as important as a living gene bank, it is also a socio-economically significant fish in the fishery economy of the Iranian Caspian coastal area. Nearly 9000 fishermen attain their income from harvesting about 9000 tons of Kutum annually. However, the deterioration of the spawning grounds, over exploitation and pollution has triggered a drastic decline in its fisheries in the 1980-81 period. To rehabilitate "Mahi Sefid", the researchers in recent years have begun artificial spawning and the releasing of young fish into the sea. Last year with the cooperation of the Caspian Environment Programme (CEP) and Inland Waters Aquaculture Institute of Iran, the rare autumn form "Mahi Sefid" was collected from the wild and artificial spawning was conducted with success.

Therefore, it seems necessary to enhance both public and expert awareness by publishing a book about the role of this fish species not only for the Iranians but also for other regional bodies. This book will illustrate different development stages of the Kutum; especially it will concentrate on the various biological stages, growth, breeding, fisheries and economy. It is written in Persian and English languages. It will incorporate all the available information in Iran, Azerbaijan, Turkmenistan, and Russian in this book.

**Project Number: MEGIV-IR15-06**

**Project Name: Let the Caspian environment live peacefully**

**Project Budget: 10,000 USD Total Grant: 1,500 USD**

### **Project Summary:**

Sports have been a key instrument in linking people from various countries since the early 20th century. Not only does it cross the geographical boundaries, but also negates political and cultural differences. Sports virtually unify the people of the world through global events like Olympics and the World Cup. Without a doubt, they could also be used to convey the message of peace and a green environment. Taking into account, the severity of the ecological predicaments of the Caspian Sea, which is surrounded by different ethnic groups and religions; Sport is a common language familiar to all of them.



Using a sporting event like cycling around the Caspian Sea is a good public awareness campaign for the enhancement of the people's environmental knowledge. Issues like water pollution, solid waste and excessive fishing were highlighted in this campaign. The cyclist completed a cycling tour around the Caspian Sea by traveling from Iran to Azerbaijan, Kazakhstan and Turkmenistan. He successfully acted as an ambassador of peace and the environment between the Caspian's nations. His undertaking was widely publicized in local newspapers and news agencies of the Caspian countries.

**Project Number: MEGIV-IR16-06**

**Project Name: Translation of "Caspian Vital Graphics"**

**Project Budget: 4,350 USD Total Grant: 4,350 USD**

### **Project Summary:**

The Vital Caspian Graphics is the latest book published by the United Nations Environment Programme (UNEP) and GRID-Arendal in their Vital Graphics Series. This book, which was prepared in close cooperation with the Caspian Environment Programme (CEP), elaborates on the struggle for access to the vast resources of this unique and fragile ecosystem and the development of new transportation routes between Europe and Asia. The same challenge still continues to shape the geopolitical and security conditions in and around the world's largest body of inland water. These and other developments pose complex challenges in the efforts of countries to improve the damaged ecosystems that the local communities are depending on. These challenges include a drastic reduction of the sturgeon and other valuable fish stocks, pollution and the destruction of the biodiversity. This book provides valuable information and data in a form of colorful and easy to understand charts.

The translation and publication of such a useful reference book into Farsi would enhance both the public and experts on environmental awareness about the status of the Caspian Sea. The Caspian Vital Graphics provides an overall picture of the Caspian environmental

in a concise and highly visual form as it discusses important issues like the ecosystem, geopolitics, human health, population, oil & gas, pollution and security.

**Project Number: MEGIV-IR18-07**

**Project Name: Conducting the Consultation Meeting of CEP for the Development of the Strategic Management Plan for Marine Litter**

**Project Budget: 2,165 USD Total Grant: 1,625 USD**

### **Project Summary:**

Marine litter is a global problem and is a major concern among the Caspian littoral countries, especially in Iran. Marine litter (debris) includes all objects that do not naturally belong to the marine and coastal environment but are nevertheless found there. It is the collective term for any man-made objects present in the marine and coastal environment. In most cases, the result of careless handling of garbage or disposal of solid waste items, which include containers of liquid waste are all considered to be "Marine Litter." However, it can also be materials lost at sea, in hard weather like fishing gear, cargo, etc.... Marine litter consists of slow degradable waste items. These items are made of persistent materials such as plastic, polystyrene, metals and glass from a large number of different sources. Marine litter can blow around, remain floating on the water surface, drift in the water columns, get entangled on the surface or sink to the deeper seabed. Marine litter is found everywhere around the world. Almost 90 per cent of floating marine debris is plastic. It is said that as much as 70% of the entire input of marine litter sinks to the bottom and is found on the seabed. Marine litter can also be easily found lying on beaches and shores.

While marine litter is an important issue in the areas around major ports and the densely populated Iranian and Azerbaijan coastlines, no systematic attempt has been made to conceptualize the issue and to develop a regional strategy to address it. To tackle this shortcoming, the Caspian Environment Programme (CEP) in collaboration with the United Nations Environment Programme (UNEP) initiated to develop a Caspian Marine Litter strategy. Towards this end, a draft "strategy" was prepared by an international consultant with the aid of five national consultants. The draft strategy was introduced to a national workshop in Iran, prior to its regional consideration. The grantee conducted the meeting in Anzali Wetland with the participation of experts and pertinent local authorities on the issue of waste collection and management. The specific legal, operational and financial problems of waste collection and recycling in the Caspian provinces of Iran were discussed and the results of the meeting were widely covered by the local TV, radio and newspapers.

**Project Number: MEGIV-IR19-07**

**Project Name: Conducting Research and Production of a Documentary Film about the Caspian Seal**

**Project Budget: 4,300 USD Total Grant: 4,300 USD**

### **Project Summary:**

Caspian seals are quite unique, because they are found exclusively in the Caspian Sea. They are also the only mammal in the Caspian waters. They can be found not only along the shorelines, but also on the many rocky islands and floating blocks of ice that dot the Caspian Sea. In winter, and cooler parts of the spring and autumn season, these marine mammals populate the Northern part of the Caspian. As the ice melts in the warmer season, they can be found on the mouths of the Volga and Ural Rivers, as well as the southern latitudes of the Caspian where cooler waters can be found due to greater depth. Unfortunately, the seal's population has decreased from about 1.5 million a century ago to

less than 400,000 in the late 1980s. The real cause of their mass mortalities are still being debated, but the Canine Distemper Virus, possible water pollution and even warmer climates are just a few to be blamed.

In order to enhance the knowledge of the general public about the Caspian Seals, a documentary film on the life and death of the Caspian seals are to be produced in the Caspian provinces of Iran. The filmmaker will conduct a month-long research on the Caspian seals and their habitats. He will consult with experts and related scientists. A group of school children, ages 7 to 11 will be involved in the research and filming of the documentary. It is intended to be shown on Iranian local TV stations and the stations in the other Caspian littoral countries. The Duration of the film is 20 minutes. It will be in Farsi with English subtitles.

## **Kazakhstan**

**Project Number: MEGII-KZ01-05**

**Project Name: Raising of Ecological Education Level of School and College Students**

**Project Budget: 4,010 USD Total Grant: 2,990 USD**

### **Project Summary:**

During the past few decades, oil production has become one of the main components of the economy in Western-Kazakhstan. But, leakage from the abandoned oil-fields has resulted in the accumulation of large quantities of pollutants that gravely disturb the ecological situation in the region. Today, one of the biggest problems of the Caspian Sea is the water level fluctuation which causes oil-well flooding. It occurs when the water reaches the old drilling sites. The water pours into the wells and pollutes the surrounding area with its oil contents. Eventually it endangers the local floras and faunas.

Another serious issue faced by the Caspian societies is the low level of ecological education concerning the problems of the Caspian Sea. Often the Caspian youth have no idea about the urgent ecological situations and how to solve them.

Hence, educational workshops and meetings on the environmental issues of the Caspian Sea were carried out for the school and college students in the City of Atyrau. They were mainly focused on the flooding of abandoned oil wells. The films and booklets were utilized for the environmental education of the students. Questionnaires that were collected at the end of the training were used to assess the understanding and perception of the students on the major environmental issues of the region.



**Project Number: MEGIII-KZ01-05**

**Project Name: A study on the public's opinion about the activities of the oil companies**

**Project Budget: 7,554 USD Total Grant: 3,000 USD**

**Project Summary:**



Many people believe that the oil production is a blessing for the people of Kazakhstan, especially in the regions, where oil is recovered and refined. But there is an ecological side effect to this new wealth. The primary concern is oil pollution and its discharge to the surrounding areas. The unsustainable economic activities, which are the uncontrolled excessive use of the natural resources without considering the environmental consequences, are hurting the Caspian ecosystem. On the other hand, there are no provisions to treat the harmful oil emissions of the abandoned and operating wells. There is a natural question, how the inhabitants of the Western Kazakhstan view the impact of oil activities on their life? The results of this project answer this question through scientific research and the sociological analysis.

Accordingly, a sociological poll was conducted in order to study the public opinion about the ecological consequences of the oil companies' activities in Mangystau region. It was also to attract the attention of local residents to the environmental problems. The sociological poll was carried out in Mangystau region through a questionnaire and the results were published in a brochure in Russian and Kazakh languages. A round table for the presentation of the brochure was conducted with the participation of representatives from the municipality, Maslikhat, the oil companies and local NGOs.

**Project Number: MEGIV-KZ02-06**

**Project Name: Increase ecological education among pupils of Atyrau high schools**

**Project Budget: 3,950 USD Total Grant: 3,000 USD**

**Project Summary:**

Rapid development of technologies, which has led to various forms of entertainments, has left the youth with no spare time to learn about nature and wildlife. As a result, the inability of youngsters to realize the scale of the environmental pollution is a great disadvantage for any national or regional campaign to improve the Caspian ecology. One of the reasons for the lack of students' interest in the environmental issues is the schools inability to provide interesting and up to date information to them. Schools in Kazakhstan should include new literature about nature in their educational curriculum.

As a first step, an ecological education program was developed for the high schools of Atyrau region and interesting information about their native land and the related environmental problems were provided. Also, the students were educated about their responsibilities towards the environment. Their own views about the preservation of the nature were collected through a composition contest. The best writings were awarded and published in local newspapers.

## **Russia**

**Project Number: MEGI-RU02-04**

**Project Name: The Volga and the Caspian from the Astrakhan Journalists' View**

**Project Budget: 3,400 USD Total Grant: 3,000 USD**

### **Project Summary:**

The Volga is the main river flowing into the Caspian Sea. It brings waters from locations as far as 3,500 kilometers away. Nearly 45% of the Russian industry and 50% of its agricultural production facilities are located in the vast river basin. Waste from Moscow's urban area and other industrial centers along the Volga River spill into the tributaries of the river. The waste that does not silt up behind a dam or soak into the Volga estuary ends up in the Caspian Sea. The Volga is an important source of pollution and the environmental awareness of the general public in this regard is highly important. Journalists can play a key role in the dissemination of information and sensitization of the public's views.

A journalist competition on the environmental issues of the Caspian Sea was conducted in the Astrakhan region and its adjacent territories. There were three goals for this competition. The main objective was to attract the attention of the people to the unique aspects of the Volga delta and its problems. Another aim was to promote discussions on the ecology in the press and to improve the environmental knowledge of the journalists. Finally, it was intended to encourage the public to participate in the environmental decision making process. As a result, a public awareness and journalist competition on the ecology of the Caspian Sea was conducted and the population and authorities were informed about the Northern Caspian Environmental issues. An internet website was created for the competition and all the articles were posted on the website and were also published in the newspapers. The best articles were awarded with prizes.



**Project Number: MEGI-RU04-04**

**Project Name: Cycle of Telecasts on Caspian Coasts about Problems of Natural Environment of the Caspian Coast of Dagestan**

**Project Budget: 3,000 USD Total Grant: 3,000 USD**

### **Project Summary:**

The Dagestan coast of the Caspian Sea is blessed with beautiful landscapes, forests, deltas, small lakes and dunes. However, the presence of various industries, agricultural activities and fisheries coupled with man-made amenities like roads, railroads and

pipelines along the coast has created dangerous ecological problems. The serious socio-economic issues of the region have resulted in the public neglect of environmental resources. In order to preserve the valuable ecology of the Dagestan coast, it is essential to emphasize the importance and priority of the natural environment to the general public.

This project is to educate the public through the preparation of 6 movies on the status of the Caspian environment and to air them on local TV stations. Scripts for six telecasts on the ecological issues of the Caspian Sea were developed; interviews were shot in Moscow with local experts and environmental scientists. Also, the natural landscapes and biodiversity of the Caspian coastal strips near Makhachkala, Izberbash and Derbent were shot on location. These telecasts are to be shown on local television stations and would be available to the other Caspian littoral countries as well.

**Project Number: MEGII-RU01-05**

**Project Name: Establishing of Ecological Educational Center**

**Project Budget: 3,780 USD Total Grant: 2,960 USD**

### **Project Summary:**



The Volga delta is one of the most important parts of the Caspian basin in terms of rich ecological assets and valuable economic activities. Although, the Volga River contributes to more than 80% of the incoming water into the Caspian Sea, this delta provides a suitable habitat for various species and its biodiversity is rich. However, the public awareness about the values of the biodiversity in the Volga and the Caspian Sea, especially among the young generation is weak. Also, the bio-resources of the region are not being managed properly and

there is no mechanism to involve the public in the protection of nature. Moreover, the unsustainable development of the coastal zone and regulation of water resources are taking place without any coordinated input from the local residents.

Therefore, increasing the public awareness about the importance of biodiversity, environment, natural resources, and their conservation is a top priority. The development of an effective and continuous ecological education in the local schools is very useful in the preservation of nature in the long term. With the aid of this project, an ecological center for children was established and seminars were conducted. Also, information boards with pictorial and easy to understand diagrams were prepared for the schools and samples of fauna and flora of the Volga delta and the Caspian were collected for the ecological education of the youngsters.

**Project Number: MEGII-RU02-05**

**Project Name: Children Painting Competition – We paint our Native Land**

**Project Budget: 3,000 USD Total Grant: 3,000 USD**

### **Project Summary:**

The Lower Volga especially the Volga-Akhtuba delta has a scenic landscape and unique biodiversity. Unfortunately, the poorly managed industrial and agricultural activities are



endangering this valuable ecosystem. This is due to the lack of adequate public campaigns on the importance of the natural resources. Children are the most unprejudiced and sincere part of the society. Proper education could alter the children's future and their social behavior. Teaching the children about their responsibilities towards the nature would also affect their parents and friends.

Children and teenagers were the target groups of this project. A drawing competition and a short essay competition on the major issues of the Caspian Sea including pollution and biodiversity were conducted. These events were widely publicized in the local mass media, in particular, "Komsomolets Kaspija", "Volga" and "Astrakhanskije Izvestia" newspapers. These competitions were intended to develop a sense of environmental responsibility in the children and popularize a caring attitude towards nature. The children's artistic works were divided into three age groups and prizes were awarded to the best three in each category.

**Project Number: MEGIII-RU01-05**

**Project Name: Role and Importance of Ethno-philology in the Process of Formation of Ecological Ethics in the Caspian Region of Dagestan**

**Project Budget: : 1,832 USD Total Grant: 1,832 USD**

### **Project Summary:**

Dagestan is one of the ecologically richest parts of the Russian Federation with unique ecosystems and landscapes. The northern Caspian Sea in general possesses significant fish resources and unexploited hydrocarbon fields. However, this region is facing serious problems like a decrease in fishing resources and an increase in pollution levels, which requires public attention and support. There is no doubt that all the Caspian communities should work together to address the environmental issues. First the local people should know about the consequences of their activities on the environment. Then, the public consciousness on environmental issues could be altered, if they can learn about the ecological ethics and values emphasized in their traditions and folklores.

The mission of this project is to collect information (publications, articles, folklore material) containing the knowledge about the ecology of the Caspian region in Dagestan, including Kislyar, Izberbash, Caspiysk and Nogaisk districts. The grantee is processing the collected material from these regions. It is planned to create a data base for the collected information in order to publish and widely disseminate the Project results.

**Project Number: MEGIV-RU07-06**

**Project Name: Pollution of the western coast of the Middle Caspian by oil hydrocarbons: an environmental assessment**

**Project Budget: 10,000 USD Total Grant: 3,000 USD**

## **Project Summary:**

There are certain areas in the Caspian Sea, which are characterized by high levels of oil pollution, which may increase in the near future due to the development of new oil and gas fields. This would entail degradation of environmental quality for marine living resources and recreational use of the coast, and consequently, cause deterioration in the quality of life for the coastal population. Existing public information is insufficient for perception of this threat and recognition of ways to prevent the risk. There is a need to fill this gap and provide information that could be used for public environmental control.

Raising the public awareness on the status of oil pollution at the western coast of the Middle Caspian, pollution hotspots and the ways of assessing permissible loads on marine environment is a top priority. The specific objective of this project is to prepare and collect information materials as an Atlas titled "Pollution of the western Middle Caspian by oil hydrocarbons, an environmental assessment". The atlas will be distributed among target groups including environmental managers from state organizations and private companies, NGO representatives, ecology students and other stakeholders

**Project Number: MEGIV-RU11-06**

**Project Name: Information provision for the Ural Basin Workshop**

**Series: preparation, support and results Communication of the first workshop**

**Project Budget: 5,700 USD Total Grant: 2,000 USD**

## **Project Summary:**

The spawning grounds of the Ural River basin are crucial for the whole Caspian sturgeon population. Unfortunately man made activities like construction of the dams and bridges are obstructing the natural migration routes of the sturgeons. For example, dams prevent the sturgeons from going farther up the river to release their eggs. Also, fishermen tend to catch them during the spawning season in the rivers. Obviously, the issue of the Ural sturgeon population should be approached on a regional and transboundary level, since the sturgeons living in the Caspian Sea migrate upstream to spawn in places in Russia through the territory of Kazakhstan. The quality of natural sturgeons is much higher than those of artificially breeding in the hatcheries. Thus, it is highly important to protect the natural spawning areas. Regrettably, the importance of the Ural Rivers basin's sturgeon habitats as an international sturgeon stock reserve is not adequately emphasized in the national plans of Russia and Kazakhstan. Moreover, there is a poor collaboration on this issue between the regional organizations in the two basin countries, Russia and Kazakhstan. Looking for ways to improve the situation, a regional project on the preservation of natural sturgeon habitats in the Ural River is initiated in order to secure their migration routes.

This project is being conducted to raise the public awareness on the importance of the sturgeon conservation in the Ural rivers basin and to initiate the discussion on the possibility of establishing the Ural Sturgeon Park. Also, it is trying to collect information and successfully communicate the results of the First Ural River Basin Sturgeon Workshop to the wider international sturgeon conservation community; and to initiate the creation of the basin-wide Sturgeon Expert Network. The project has launched the website on Ural Sturgeon Conservation and Sustainable Basin Development and will assist in the preparation of the information package for the First Ural River Basin Workshop.

## Turkmenistan

**Project Number: MEGI-TK01-04**

**Project Name: World which We Live in**

**Project Budget: 7,530 USD Total Grant: 2,800 USD**

### Project Summary:

Although the population of the Caspian coastal areas of Turkmenistan is very small in comparison with the coastal urban areas of Iran and Azerbaijan, the bio-varieties of this region are important and they consist of over 870 species. The socio-economic problems in the region and the prioritization of economic demands like employment, energy and housing has resulted in the ignorance of the long term ecological objectives. Children are one of the main target groups in any public awareness campaign, since it is possible to change their attitudes towards the environment at the early stages of their life. This is in contrast with the adults who have learned to use the natural resources without thinking about its consequences.



Conducting drawings and photography contests for children not only attracts the attention of the youths, but also has an impact on the grown ups who are keen to listen to the children and their demands. Therefore, the competitions were conducted and the winners were selected. Then, the competition materials were presented in a mobile exhibition in 4 populated areas of Turkmenbashi region and 8 locations in Turkmenbashi City. The awarded materials were shown in "Miras" program on Turkmen TV and were published in several local newspapers with the aid of Historical-Regional Museum and the Department of Culture of Turkmenbashi District.

**Project Number: MEGI-TK10-04**

**Project Name: Caspian Biodiversity – Future Generation**

**Project Budget: 4,417 USD Total Grant: 3,000 USD**

### Project Summary:

Almost all of the local schools in the Caspian coasts of Turkmenistan lack laboratory instruments or educational materials for ecology classes. There is not enough governmental funding for environmental tours and activities and thus in a region where the local population is facing economic challenges, the environmental issues always take the back seat. Moreover, the ecological education is not a top priority in the general education curriculums and the teachers have to work very hard to attract the attention of the students towards these issues. On the positive side, students become interested in nature and its preservation, once they are introduced to the ecology and the world of animals.

With the aid of this project, a marine biology laboratory for studying various species including sturgeons in a local school of Turkmenbashi City was created. The laboratory was established in a renovated hall in a local school and the required equipment like computer, aquarium, scales, microscopes, thermometers, etc... were purchased. The collection of living creatures under the supervision of a taxidermist as well as the publication of a monthly newsletter on the major issues of the Caspian Sea like pollution, endangered species and fisheries for the school children were the other outcomes of this project. Currently, the laboratory facilities are being shared by the other local schools as well.

**Project Number: MEGII-TK02-05**

**Project Name: The Caspian Sea, an Invaluable Gift of Nature – Organizing a Journalist Contest on the Caspian Sea Ecology in the Balkan Newspaper**

**Project Budget: 2,600 USD Total Grant: 1,700 USD**

### **Project Summary:**



Any progress in the preservation and conservation of nature depends on the interest of the local population and the level of their awareness. In this respect, the mass media plays a very important role in terms of ecological education and attraction of the public to environmental issues. The Balkan Velayat Newspaper with 23 thousand circulations in Turkmenistan conducted a journalist competition on the ecological status of the Caspian coast of Turkmenistan in order to identify and analyze the basic sources of pollution caused by economic activities in the coastal areas. Amongst the received articles, ten articles were selected as winners. Topics were related to the Turkmenistan's environmental policies, international projects, conservation of biological resources, desertification, socio-economic development, youth awareness, fisheries, and pollution.

The project was successful in improving the public awareness on the ecological issues of the Caspian Sea and over 80 thousand people received the related information in various towns and villages of the Balkan Valayat. Booklets and posters were published and writing materials, articles, essays, commentaries, sketches and reports were collected as part of the competition. The winning essays were published in the Balkan Newspaper and prizes were awarded. The publication of the articles promoted the Green Movement in Turkmenistan and strengthened the partnership between the mass media and state nature conservation and public ecological organizations.

**Project Number MEGII-TK03-05:**

**Project Name: The Song of the Caspian Sea**

**Project Budget: 2,170 USD Total Grant: 750 USD**

## Project Summary:

There is a global threat to the biological diversity. Biodiversity is defined as the number and variety of species of plant and animal life within a region. Since, all the living beings on this planet are interacting with each other; even the loss of one species could affect the balance of nature. All the scientists agree that the protection of biodiversity is highly important. Turkmenistan is one of the first countries to join the Convention on Biological Diversity in June 1999. However, a national environmental awareness campaign is needed in the country in order to familiarize the population with the objectives and importance of this convention. People must understand that we are sharing the same planet with other animals and our future depends on the well-being of each other. Thus, the perceptions of the local residents need to be altered through environmental awareness.



The Children were one of the main targets for this project because they play an important role in our society and can ensure the protection of biological diversity in the future. Some of the children and students of Turkmenbashi City were engaged in the preparation and performance of a theatrical play about the ecology of the Caspian Sea. The musical play was conducted in the Palace of Culture and Technology in Turkmenbashi for the children and by the children. It highlighted the ecological problems of the Caspian Sea in an interesting and easy to understand language for the children. Over 1,000 programme booklets were published and distributed amongst the 14 schools and kindergartens of Turkmenbashi. Before the performances, the photograph and drawing exhibition of another CEP project titled "World, in Which We Live" was held in the Palace of Culture. Seven performances with a total of 2,300 visitors were organized in Turkmenbashi.

**Project Number: MEGIII-TK01-05**

**Project Name: "The green town" – by schoolchildren hands**

**Project Budget: 3,850 USD Total Grant: 2,750 USD**

## Project Summary:



The Caspian coast of Turkmenistan unlike the Iranian part is dry and the destruction of forests and pastures into deserts is one of the main problems in this region. Every year the limited vegetation of the Turkmenistan coast is receding due to lack of fresh water, storms and dry winds. Therefore, planting trees is one of the top priorities for the ecologists and the government of Turkmenistan. Trees prevent the advancement of desertification, improve the local micro-climate, protect the soil, cleans the air, produce oxygen, provide parks, improve recreational activities, and create beautiful landscapes.

Raising the awareness of the local population about the environmental problems and the usefulness and benefits of the green plantations in towns and the coastal areas is highly important. Thus, a public awareness campaign was conducted through the lectures, meetings, and publication of posters for the children. A Public participation action was conducted. It was called "Green Town" and it trained the students to plant perennial trees

in Khazar town. Close to 1,200 students took part in this initiative and the selection of seedlings and the actual plantation were supervised by a specialist. The Ministry of Nature Protection of Turkmenistan approved this project and the Administration of Khazar Town provided assistance and support in its implementation.

**Project Number: MEGIII-TK08-05**

**Project Name: Ecology, me and the Caspian**

**Project Budget: 6,782 USD Total Grant: 2,810 USD**

### **Project Summary:**

Although the environment has become a popular topic that we hear a lot about in the news, people of Turkmenistan are not well aware of its related issues. Most of the coastal residents are too busy coping with the socio-economic demands of everyday life and do not have enough spare time to read books or articles about the environment. However, they are very interested in sports and a sporting event is a good opportunity to disseminate information about the environment. This project is being conducted by a popular sports club whose members are diverse and include school children, students, civil servants and pensioners and have had past experience working with kids, various organizations, and foreign companies.

It is intended to increase the awareness of the local people about the environmental issues, including the use of alternative energies in this project. An environmental marathon from Gumdag, 40 km north of Balkanabad, to Essenguly, the south point of Turkmenistan coast will be conducted using two wind-boats and it will cover about 300 km of the road for 10 days. Almost all settlements on the south Caspian coast will be visited, including Gumdag, Bugdaily, Garadepe, Ekerem, Chekishlyar and Essenguly. At each stop, discussions with local youth and the general population on various environmental issues, such as the importance of alternative sources of energy will be conducted. All the participants are trained on the ecological issues like the flora and fauna of the Caspian region. They will discuss ways to improve the environmental status of the Turkmenistan coasts with the local residents.

**Project Number: MEGIV-TK01-06**

**Project Name: Creation of exposition (exhibit) "Ecology of the Caspian of the Caspian Sea" in museums of local lore in the Balkan region**

**Project Budget: 5,030 USD Total Grant: 2,940 USD**

### **Project Summary:**

The museums in Balkanabad City as well as Turkmenbashi and Khazar are popular visiting sites of Turkmenistan residents. Each year, more than 10,000 people visit these museums including 7,000 visitors in Balkanabad City. More than 70% of the visitors are children and youths. Also, they have considerable potential in providing environmental education to the general public. Currently, each of these museums has allocated a special section for ecology, where the fauna and flora from various locations in the Balkan region are collected and exhibited. Since, the majority of the visitors are children; museums are a desirable location for public awareness and environmental education.

The capabilities of three Caspian museums namely, the Balkan museum of history and two other museums in Turkmenbashi and Hazard towns are to be enhanced by exchanging and distributing environmental information. Also, expositions on the Caspian Sea environment in special sections of the museums are to be established. The museums will be equipped with internet connection and other modern information and communication technologies in order to facilitate the daily activities of the workers at the museums in the Caspian region.

