

The Eurasian Development Bank's Investment Policy and the Environment

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The EDB's Strategy for 2008–2010 incorporates environmental responsibility in the Bank's investment policy. The Bank's mandate is to foster economic growth in the member states and support sustainable development and regional integration. In selecting and implementing investment projects, the Bank takes measures to prevent any deterioration of the environment or the social, working or living conditions of the population.

The Bank's approach must be effective for environmental security of the Bank's member states. In the regional context, these measures address the problems of transboundary transfer of water- and airborne pollutants, and promote the efficient use of natural resources based on resource-saving and environmentally friendly technologies. The structural reorganisation of any economy poses economic and environmental problems which governments and institutions must address in the best possible way, adhering to the highest standards of environmental protection and eliminating natural and manmade disasters.

Any investment project which affects the environment of neighbouring states is subject to thorough environmental impact assessment (EIA) and notification procedures in accordance with international regulations and recommendations governing environmental protection. The Bank conducts the compulsory EIA, taking into account economic risks which can result from changes in the environment and the management of natural resources with a potential transboundary effect.

Sustainable development and economic growth are closely linked with environmental protection. The Bank, as an international financial institution, adheres to multilateral and regional agreements on environmental protection and sustainable development. These include the UN Framework Convention on Climate Change, the Kyoto Protocol, the Convention on Biodiversity, the Convention on Environmental Impact Assessment in Transboundary Context, and the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters. Each of these documents provides the Bank and its clients with the main requirements and mechanisms which underpin their approach UN (1997) to the environment in the implementation of their investment projects (UNECE, 1992).

Assessing Regional Environmental Problems as a Key Phase of Investment Project Planning in Central Asia

Contemporary Central Asia is situated at the heart of Eurasia; it encompasses the territories of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan and borders Russia in the northwest, Iran and Afghanistan in the south and Russia and China in the east. The region covers about 4 million km² of the vast Aral-Caspian drainage basin, which extends from the subtropical zone to the southern margin of the mid-latitudes. The region's desert location, its remoteness from seas and oceans and its orographic structure all shape its continental climate and hydrography. Climatic conditions in mountainous areas directly influence cyclical river flows and the utilisation of water. High temperatures during the growing season and a saturation deficit result in a high evaporation capacity. Therefore, irrigation, which is vital to this region, has the greatest influence on water utilisation and international relations in transboundary river basins.

The Central Asian region is a new geopolitical structure within the modern global political system and consists of five independent states. The term "Central Asia" traditionally denotes a geographical area which extends far beyond the borders of these states. However, in a political context, this region is understood as being confined to the territories of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan. Its natural and geographic unity has been forged in the basins of its transboundary rivers. This in turn has determined the historic and cultural homogeneity of Central Asian nations, and is a key factor in strengthening their economic integration. Given their economic and social interdependence, resolving the region's environmental problems, which are generally transboundary in nature, and ensuring the sustainable development of Central Asian countries, will depend upon accelerated integration based on the joint management of water resources in transboundary river basins. Whilst the geographic location of Central Asia bestows certain advantages, the region is nevertheless disadvantaged by its remoteness from major transport routes and sea ports, the scarcity of water resources and irrigable land, and its sparse population density in certain parts of the region.

Common environmental problems in Central Asia

Central Asia's fragile ecosystem, its water shortages and arid climate act as serious impediments to the socioeconomic development of the region's countries.

Transboundary atmospheric pollution in industrial and urban areas is one of the most acute environmental problems in Central Asia. The main causes of air pollution are the metallurgical, chemical, building, energy and transport industries. Wastewater from farms and industrial facilities contaminates

transboundary rivers. Runoff water contains pesticides, nitrogen and phosphates, which threaten river ecology and water safety. Neither an efficient recycling infrastructure nor an adequate waste management strategy is in place. There is also a potential threat from radioactive and toxic metallic waste disposal sites. Eventually, a considerable percentage of waste disposed of within the drainage basin reaches the rivers.

Another serious problem for the region is desertification. For example, more than 66% of Kazakhstan's land is desertified. About 40% of pasture land in Kyrgyzstan is depleted. In Tajikistan, the cultivation of steep slopes and deforestation of the mountains has destabilised the natural mountain habitat. About 80% of Uzbekistan's territory is desert or semi-desert. Mountainous ecosystems are especially sensitive to external influences. Anthropogenic effects are felt even in the scarcely populated Pamir and Tien Shan mountains, resulting in deterioration of ecosystems, loss of biodiversity and soil erosion. The cumulative effect of anthropogenic load on mountainous ecosystems accelerates desertification and the loss of biodiversity. Other negative consequences of this process are changes in the hydrological cycles of renewable water resources and an increased risk of natural disasters (OECD, 2005).

The region is widely exposed to natural disasters, including earthquakes, floods, mudslides and landslides. These pose a huge threat to the safety of dams, water reservoirs, villages and towns along the rivers. Any major dam burst threatens the population of all countries in the region. This threat is especially pronounced in the mountainous areas of Kyrgyzstan, Tajikistan and Uzbekistan, where most of the region's runoff is generated, and where the risk of destructive flood tides is highest.

In addition to the problems mentioned above, there are several large-scale environmental crises which threaten all the Central Asian countries: the drying up of the Aral Sea, the unstable rock-dammed Lake Sarez, etc¹.

According to statistics, about 36.1 million people (64% of the region's population) have access to centralised water supply. In Kazakhstan, Tajikistan and Turkmenistan, water supply systems in cities are better than in rural areas. Access to sewage systems is restricted to 22% of the population (11.4 million people), mainly in cities (UNESCO, 2000).

The absence, inefficiency or poor state of repair of water supply and sewage systems are the main obstacles to improving public health and quality of life standards, especially in rural areas. All these problems in turn impede the sustainable development of the region. Most oblast centres have no sewage

¹ *The Executive Committee of the International Aral Rehabilitation Fund (2008) 2002–2008 Operations Report of the International Aral Rehabilitation Fund. Dushanbe.*

treatment systems, and untreated wastewater is being discharged directly to filtration fields or storage ponds. The existing treatment facilities are overloaded, and there is a permanent threat of dam breakage.

The construction of many hydraulic environmental protection facilities has been discontinued or never planned due to a lack of funds. The generally accepted "polluter pays" rule is barely applied, and no fee is charged for the use of freshwater resources, which is required to encourage efficient natural resources management. Common pollutants are oil products, phenols, heavy metal salts, fertiliser, and pesticides. As a result, cities and other areas are unable to supply drinking water that complies fully with public health requirements.

The existing water supply systems in Central Asian countries do not meet requirements for reliability and drinking water quality, nor do they have all the required treatment facilities; protective sanitary zones are not in place at many water collection sites. Up to 70% of water distribution networks are obsolete, and this figure is increasing, which results in frequent accidents and contamination of water. Over 20-30% of water is lost due to leakages in household water supply systems and pipe corrosion or obsolescence. Existing pipeline capacity is not sufficient to provide an uninterrupted water supply because of its poor state of repair and the obsolete water treatment technology in use. The situation is exacerbated by the fact that a large proportion of wastewater from industrial facilities is being directed to municipal treatment works which are not designed for such wastewater. Most cities have no storm drainage able to treat excess water; as a result, large quantities of contaminated water end up in water bodies. Contamination of drinking water sources and the inefficiency of treatment facilities lead to the deterioration of the quality of drinking water consumed by the public.

In rural areas, people sometimes have no choice but to drink water which does not meet health standards, and the majority of the population uses decentralised water sources which do not always meet public health requirements for salt content, hardness and chemical composition; surface water sources are not protected against bacterial and chemical contamination. The water companies themselves are financially weak, for a number of reasons: overstated individual water consumption makes extensive capacity development essential; there is a lack of actual consumption records; data is misstated; pricing is disproportionate; customer service is poor; and there is no clear allocation of rights and responsibilities for both consumer and supplier.

The safety of drinking water has to be a key element of a comprehensive environmental policy for Central Asian countries. A package of urgent legal, economic and organisational measures must be implemented to protect water resources from contamination, increase the use of properly protected

underground freshwater, reduce the load on water treatment plants, minimise drinking water losses, and improve water treatment technology.

To conclude, it is clear that Central Asia's environmental problems all relate directly to the stability of river ecosystems (UNECE, UN ESCAP, UN, SPBEC, 2004). If these countries fail to take concerted action to stop the depletion and contamination of water resources, these trends may have a negative impact on socioeconomic development, environmental protection and security in Central Asia (UN, 2003).

The availability and adequacy of water resources is an essential precondition for the stable functioning of all economic sectors. The efficient regulation of shared water utilisation, especially in agriculture and the hydraulic power industry, is key to international cooperation between Central Asian countries.

Environmental safety at mining waste sites

Waste from uranium production facilities poses a serious threat to the population and the environment in Central Asia. The waste has accumulated over many decades but is no longer reliably maintained, and there are insufficient funds to ensure that necessary land reclamation measures are being taken at uranium tailings sites. There is a high risk that any accident would have a severe transboundary impact and this situation calls for concerted action to ensure the safety of these sites.

In Belarus, the most urgent environmental problem is the radioactive contamination of about one quarter of its territory following the Chernobyl disaster.

In Kazakhstan, there is a high level of contamination from mining and uranium processing waste sites.

In Kyrgyzstan, there are many complex and radioactive ore processing dumps concentrated in river basins (of the 35 dump sites, 30 contain uranium processing waste and five contain non-ferrous metal wastes).

Box 10.1.: *Between 1946 and 1968, a uranium deposit was exploited in the floodplain of the Mailuu-Suu (a tributary of the Syrdarya), 26 km from the Uzbek border (Madaniyat, Pakhtaabad District). A total of 23 tailing storage facilities were constructed to hold 2 million m³ of radioactive waste, and 13 dump sites contained a total of 845,600 m³ of radioactive overburden. The total area of the Mailuu-Suu tailings storage is 432,000 m². In Mailuu-Suu city itself there are 14 tailings storage facilities and 12 dump sites. As well as the Mailuu-Suu deposit, the nearby Shakaftar, Kyzyl-Dzhar and other mines were also developed.*

Kyrgyzstan's uranium tailings sites pose a major threat to human health, the environment, and the security of Central Asia. They are a particular threat

to the Fergana valley. The risk of an environmental catastrophe is high, and its potential impact may spread to Kazakhstan, Uzbekistan and Tajikistan. Therefore, securing the environmental safety of the Syrdarya and Chu basins, which are exposed to the transboundary impact of mining wastes and dump sites, is viewed as a key regional priority.

The *VNIIPromtekhlogiya* Institute (Moscow) has prepared a report entitled *An Assessment of the Radiation and Environmental Situation and the Feasibility Study for the Rehabilitation of Areas Affected by Uranium Production in the Republic of Kyrgyzstan*. The report includes a brief assessment of radioactivity at uranium tailings storage facilities and reclaimed radioactive waste storage sites in the Mailuu-Suu area. It also includes the Institute's engineering and environmental surveys and the results of previous studies by Kyrgyz and Uzbek specialists. The Institute's proposed project comprises an assessment of the present condition of the tailings storage facilities and surrounding areas, their effect on the environment, safety aspects, and technical solutions to rehabilitate these facilities and ensure safe working conditions. The project is intended to stabilise the radiation affecting the city of Mailuu-Suu and prevent the spread of radioactive materials to other parts of the valley along the alluvial cone of the Mailuu-Suu as a result of landslides, riverbed obstruction or flushing-out of tailings sites.

In Tajikistan, areas where dangerous radioactive waste has accumulated are a serious threat to health. In Sogdiyskaya Oblast there are large storage sites for radioactive tailings and low-grade ores. The oblast is also home to the Anzob Mercury and Antimony Works and two gold mining facilities. Most tailings sites are situated close to cities and rivers. Close to Khudzhand and Chkalovsk, 9 km from the Syrdarya, is the 70-ha Digmai storage facility, which contains radioactive tailings and the waste of rare-earth metal processing. Digmai is the largest facility of its kind in Tajikistan; it holds 20 million tons of uranium processing waste and 5.7 million tons of vanadium processing waste. The site has not been maintained since ore processing there was abandoned. Although the site was partly sown with reeds, its surface has dried out and radioactive dust is being carried by the wind to the surrounding area. Several radioactive tailings sites are located near the cities of Chkalovsk, Gafurovo and Taboshar, and the village of Adrasman; all of them are major sources of environmental pollution. Dumps and open pits at these sites have not been rehabilitated and waste is being spread by wind and rain.

A dangerous situation has also developed at the Anzob Ore Mining and Processing Works on the Yagnob river, an upper tributary of the Zeravshan. Temporary waste storage facilities are overloaded and there is a serious threat that waste will no longer be contained.

The transboundary industrial waste site near Bekabad in Uzbekistan also requires attention. The Bekabad Metal Works waste heaps, which are

5-20 m high and cover an area of 15 ha, are located in the territory of Tajikistan. Bekabad's large household landfill site is located nearby. The storage facilities there do not meet the environmental protection regulations of either country.

The most serious direct threat to health and the environment is posed by the Kanibadam toxic waste storage facility near the district's administrative centre, the Great Fergana Canal and the Kairakum reservoir. This contains toxic chemicals and biological preparations whose shelf life has expired or which have been banned from use. Between 1973 and 1990, a total of 4000 tons of toxic waste accumulated there. The site has no waterproof ground membrane or drainage system. Underground aquifers are not protected against toxic chemicals, and the state of the toxic waste storage area is not monitored.

Under the aegis of EurAsEC, the Concept for an international programme entitled *Rehabilitation of Areas Affected by Uranium Production in EurAsEC Member Countries* is being drafted; this Concept is aimed at eliminating the risks of radioactive contamination.

Box 10.2: *In EurAsEC member countries, a total area of 80 km² is affected by radioactive contamination from uranium production facilities total. This includes 51.7 km² in Kazakhstan, 16 km² in Russia, 6.5 km² in Kyrgyzstan, 3.0 km² in Tajikistan and 2.8 km² in Uzbekistan.*

Tailings storage and mining waste sites in Kyrgyzstan and Tajikistan pose the most serious transboundary threat to the environment, as these can contaminate river basins.

The state corporation, Rosatom, prepared a draft Concept for the EurAsEC international programme entitled Rehabilitation of Areas Affected by Uranium Production in EurAsEC Member Countries. This Concept proposes a unified system for radiation safety and rehabilitation of areas contaminated by radiation to international standards, in order to prevent transboundary environmental disasters; trials of certain elements of this system will be carried out at the most dangerous sites in Kyrgyzstan (Kadzhi-Sai and Minkush) and Tajikistan (Taboshar).

According to a preliminary estimate (2008), this programme will cost 446 million roubles; it will be implemented in 2010-2015.

It is envisaged that the programme will be financed by EurAsEC, international organisations, private investors and by the governments of EurAsEC member countries.

Environmental Problems in the Caspian Region

As international demand for oil and gas increases, the vast oil and gas reserves of the Caspian region have attracted the attention of international energy companies and individual countries.

The proven oil reserves owned by Azerbaijan, Russia, Kazakhstan, Turkmenistan and Iran are estimated at 17-49 billion barrels, which is 3-5% of the world's oil reserves. Natural gas reserves total 6.5 trillion m³, comparable to those of Saudi Arabia, whilst probable reserves are estimated at 9.3 trillion m³. As at the end of 2006, proven oil reserves totalled 39.6 billion barrels (3.3% of the world's reserves) in Kazakhstan and 0.5 billion barrels in Turkmenistan.

In 2006, oil production in the region totalled 2.3 billion barrels per day, almost equal to oil output in Brazil, the second largest oil producer in South America. It is expected that, in 2010, the Caspian region will produce 2.9-3.8 million barrels of oil per day, surpassing Venezuela's output. The region's natural gas production in 2005 reached 147 billion m³. This almost equals the total gas production of South and Central America and Mexico.

The economy of the region's post-Soviet states is heavily dependent on the production and export of fossil fuels. The economic importance of coastal areas, national economies, living and environmental conditions in the region have all changed accordingly.

The Caspian Sea is the world's largest inland water body. Its size and its ecology largely depend on the water quality of the rivers that empty into it. The effects of human activity in the region are augmented by climate change and extreme weather conditions. As a result, the ecosystems of the Caspian basin bear an excessive anthropogenic load, detrimental to the environment and the living conditions of the population. Mismanaged industrial development, pollution and the exploitation of valuable resources (oil, gas, uranium, sturgeon and other fish, etc.), all harm the environment. There is an inevitable social and economic price to pay both nationally and internationally. Rising Caspian Sea levels in 1978-1996 were a huge environmental problem for the region's countries which were faced with the associated problems of flooding, salinisation of pasture and other agricultural land and degradation of infrastructure. Intensive fishing and contamination have decimated the sea's biological resources.

Of all the economic activity undertaken in the eastern Caspian region, intensive oil and gas exploration and production have the worst impact on the environment. Pollution of the sea, air and soil is being recorded in many offshore and onshore areas. To date, desertification, soil consolidation and soil contamination resulting from the production and transportation of oil have affected a total area of 500,000 ha. Severe soil degradation resulting from spillages of oil and oil products has been recorded over 5000 ha in the Atyrau and Mangistau Oblasts. Data on soil contamination in Turkmenistan is incomplete but, according to preliminary estimates, may affect 1000 ha.

A boom in offshore and onshore oil exploration and production and the expansion of the pipeline network create risks for the environment. The Volga

alone carries several thousand tons of oil products annually from onshore facilities to the Caspian Sea. The rivers that fall into the Caspian Sea are responsible for over 50% of its total oil contamination. Future development of onshore and shelf deposits is expected to increase this pollution. Currently, the northern part of the sea, mainly the Volga delta, has a high content of phenols and oil products, which may affect plant and animal life. Depletion of fish stocks, damage to the beauty of the landscape, the deterioration of water quality and other negative influences may undermine prospects for future development, especially of fisheries and tourism. Oil from certain Caspian deposits has higher natural radioactivity. The long-term exploitation of these deposits, especially in Mangistau Oblast, has resulted in the accumulation of 10000-15000 tons of low-radiation, oil-bearing waste and scrap metal in temporary storage facilities close to the oil deposits. These sources of radiation are an additional threat to environmental safety.

In Turkmenistan, oil production in the Cheleken peninsula, and the transportation of oil and gas by tanker and pipeline, have harmed local biodiversity and ecosystems. Several specialised chemical plants are also located in Cheleken. This high concentration of oil and chemical facilities raises particular environmental protection issues, since not only is there an increased risk of water and air contamination, but the rising Caspian sea level could also cause industrial sites to flood. Offshore oil production in the Turkmen sector of the Caspian, near the Cheleken peninsula, is based on dozens of platforms producing 350,000 tons of oil annually. Before the oil boom in Cheleken, flat pits formed by saline soil on the shore (*takyrs*) served as natural water reservoirs. These *takyrs* provided fresh water to some 10000 people, farm animals (camels, sheep and goats) and migrating birds. When oil production began, many *takyrs* were used as evaporation ponds for oily fluids and became contaminated with oil products, surface reagents and heavy metals. Oil spills and other emergencies continue to threaten the environment and public health.

Given the need to preserve the ecosystem and natural resources of the Caspian Sea as oil reserves are being developed, Kazakhstan and Turkmenistan must keep a close eye on environmental protection and safety. For example, Kazakhstan banned the flaring of gas and discharge and burial of waste at sea. Environmental standards and industrial safety in both countries have been brought up to international levels. In addition, these countries implemented a package of measures to ensure prompt reaction to oil spills, including the formation of a special offshore rescue team. A National Plan of Action was developed to prevent and respond to oil spills in the sea and inland water bodies. Under the Tehran Convention (Framework Convention for the Protection of the Marine Environment of the Caspian Sea), several protocols to tackle the region's most acute problems were drafted and forwarded to other Caspian countries for discussion and ratification.

In order to secure the environmental safety and sustainable development of the Caspian region, a review of the defence industry is also needed, particularly the production, processing and storage of uranium. Projects to assess the threats posed by such facilities and to reclaim land must be planned and implemented, and information on any hazard to human health and the environment around such facilities must be made public.

The expansion of the energy sector in the region over the last decade has had a significant impact upon the socio-economic climate, changes which are often linked to the increasing burden on the environment. Political stability and security in the Caspian basin is a critical prerequisite for future development. In order to reduce actual and potential threats to security, Caspian states should continue to build mutual trust and take steps to promote regional cooperation and integration. This will enable them to respond more efficiently to new challenges such as climate change.

Industries in all the coastal oblasts of Kazakhstan and Turkmenistan are highly specialised, and increases in their gross regional product is attributable mainly to the energy sector, while agricultural production in the same areas is declining.

Caspian cities have become strategic centres for the energy sector – concentration of financial services, transportation, housing, etc. – and this attracts many migrants from rural areas, other regions and even other countries. At present, more than half of the region's population lives in urban areas close to oil and other raw material deposits. This widens the social and economic divide between these cities and the agricultural areas located at some distance from the sea.

Development of these areas is seriously impeded by a shortage of drinking water. Over the next decade, the availability of fresh water will be the key factor in the sustainable development of the region's cities.

One of the signs of the growing human impact on the sea is the dramatic shrinkage in the population of Caspian seals – from one million a century ago to 350,000-400,000 animals in the 1960s and 110,000 at present. Until recently, the decline in the seal population was attributed to excessive hunting and poaching, but the main reason for the decline of this species are now thought to be environmental pollution, scarcity of food, ecosystemic change, global warming and disease.

It is believed that fluctuations in the Caspian Sea level are mainly due to climate change, especially in the Volga basin, which contributes about 80% of total run-off to the sea. Rising seas and natural events such as storm surges have led to the flooding of oil wells and infrastructure. This in turn has resulted in the contamination of vast areas of land and the deterioration of scarce farm land. Earthquakes can also have a devastating effect on the region's energy infrastructure, population and environment.

The rapid development of the fishing industry in the 1950s, and other factors such as the degradation of spawning grounds in the Volga and Ural deltas, dam building, intensive fishing, poaching and pollution, have all resulted in the dramatic depletion of Caspian fish stocks. The process was accelerated by predation by non-native fish species introduced to the Caspian Sea. The catch of sturgeon, the Caspian's main commercial fish, fell from 16800 tons in 1981 to 8000 tons in 1991 and 200 kg in 2007. In 2001, a temporary ban on the export of sturgeon caviar was introduced under the Convention on International Trade in Endangered Species of Wild Fauna and Flora. The depletion of the sea's natural resources has had serious economic and environmental consequences (Martino, Novikov, 2008).

Achieving a balance between the development of energy resources and the prevention of excessive depletion of resources and harm to the environment is a complex challenge for this region. A study of the environmental and socioeconomic problems that may provoke conflict in the region should lead to the formation of a coordinated policy to ensure environmental and industrial safety in the Caspian region. It will also encourage cooperation in the utilisation of transboundary water resources.

A Comprehensive Approach to Environmental Problems

In all Central Asian and Caspian economies, almost every sector is dominated by resource-intensive production. This has a significant environmental impact. Efforts being made at the national level to ensure environmental safety are inadequate. Rates of morbidity attributable to environmental pollution are rising or remain high. The urgent problem of industrial waste processing is unresolved. Areas affected by radioactive contamination or in which dangerous industrial waste is stored face intolerable risk to health and the environment. The problems of soil erosion and loss of soil fertility are escalating. A considerable proportion of fixed industrial assets do not meet environmental safety standards. Water quality in most transboundary watercourses does not meet statutory requirements. The supply of fresh drinking water is becoming critical in all these countries.

Transboundary pollution poses numerous threats to the environment. In many cases, contamination spreads to neighbouring countries, with severe economic and social consequences. Air and water are particularly exposed to contamination. Accumulated industrial waste threatens public health and ecosystems, particularly in border regions. However, efforts to solve transboundary environmental problems lack coordination. The environment is not often seen as priority in international relations (UNDP, 2003), and there are no institutionalised procedures for transboundary environmental issues settlement (Kondratyev, Krapivin, 2005).

The contamination of very scarce water resources is a serious obstacle to sustainable development and environmental protection in Central Asian

countries. Their economies are seeing immense structural change, involving upheaval in the ownership of land and the means of production. In many cases this brings with it a change in water consumption patterns and, subsequently, a redistribution of investment between economic sectors. High energy costs restrict the profit that can be generated from available resources, making investors reluctant to invest in the water sector.

The lack of effective distribution of water across borders, the conflicts which arise from this, poor communication regarding the quality and utilisation of water, and restricted common access to information, all threaten the progress of regional cooperation. It is notable that states concerned tend to share out the benefits of access to water, rather than the water itself. This complicates the problems associated with joint use of transboundary rivers. Declining water quality and quantity and the risk of flooding are huge threats to sustainable development. This situation requires the creation of effective and authoritative cooperation organisations and the implementation of regional security measures. Until now, there has been no integrated management of the utilisation and protection of river basin water resources (UNEP, 2002).

The higher frequency of natural and manmade disasters causes disproportionate damage to the region's poorest countries. All countries prone to natural disasters suffer economic losses, but they strive to adapt to such loss rather than change their approaches radically.

All these inter-related problems are dealt with separately at the national and regional levels, reducing the effectiveness of the response to environmental challenges. Therefore, regional cooperation must focus on formulating a comprehensive environmental security policy.

Integrating Environmental Standards into the Investment Policies of International Financial Institutions

Environmental considerations are of increasing importance to international institutions, especially those operating in the transboundary context. In June 2003, the ten largest international banks declared that their investment decisions would be governed by the Equator Principles. These principles are so called because a project must comply equally with the requirements of national and international laws pertaining to environmental protection and industrial safety. The number of major lending institutions which have adopted the Equator Principles has reached sixty, and altogether they control 80-85% of the global project financing market.

The Equator Principles are based on the environmental protection and social standards adopted by the International Financial Corporation, a member of the World Bank. When a bank adopts the Equator Principles to assess the

environmental and social impact of a project, this means that it assumes responsibility for the environmental safety of the project as early as the pre-investment phase. Thus international financial institutions are changing their policy of non-intervention to one of joint responsibility for efficient natural resources management and environmental protection. Unfortunately, the Equator Principles have not yet been adopted by banks in post-Soviet countries.

The Equator Principles apply to new project financing in all sectors with total capital costs of at least \$10 million. They form a benchmark against which financiers assess all the project's risks, including environmental, social and socio-economic issues. Recipients who do not meet these criteria must either repay their loans with a risk premium or review their business. Normally, these criteria apply to sizable, complex or costly projects such as power plants, chemical facilities and mines and transport, environmental and telecommunications infrastructure.

Financial institutions adopting the Equator Principles must develop their own project financing procedures covering various aspects of corporate social responsibility and sustainable environmental management. In so doing, these institutions undertake to lend only to projects where there is a proven ability and willingness to comply with social and environmental protection requirements. The bank must designate each project as either Category A, B or C (i.e. high, medium or low environmental or social risk). For Category A and B projects, the borrower is required to carry out a special environmental impact assessment. This approach enables the bank to eliminate or minimise the project's potential negative impact on ecosystems and the population.

Since the Equator Principles constitute a new approach towards investment, they should be explained in more detail:

Principle 1: Review and Categorisation

Projects are categorised according to the magnitude of their potential impact and risk in accordance with the following environmental and social assessment criteria:

Category A – projects with potentially significant adverse social or environmental consequences that are diverse, irreversible or unprecedented;

Category B – projects with potentially limited adverse social or environmental consequences that are few in number, generally site-specific, largely reversible and readily addressed through mitigation measures; and

Category C – projects with minimal or no social or environmental consequences.

Principle 2: Social and Environmental Assessment

For each project assessed as either Category A or Category B, the borrower must carry out a Social and Environmental Impact Assessment and propose mitigation and risk management measures that are relevant and appropriate to the nature and scale of the proposed project.

Principle 3: Applicable Social and Environmental Standards

Standards applied fall into the following categories: social and environmental impact assessment and management systems; working conditions; prevention and elimination of environmental pollution; public health and safety; acquisition of land and forced migration; preservation of biodiversity and comprehensive management of natural resources; indigenous people; and cultural heritage.

Principle 4: Action Plan and Management System

For all Category A and B projects the borrower must prepare an Action Plan which addresses environmental protection, industrial safety and social activity. Borrowers will build on, maintain or establish a Social and Environmental Management System that addresses the management of these impacts, risks, and any remedial action required in order to comply with applicable host country social and environmental laws and regulations.

Principle 5: Consultation and Disclosure

For all Category A and, as appropriate, Category B projects, the government, borrower or third party expert must consult with the communities affected by the project in a structured and culturally appropriate manner.

Principle 6: Grievance Mechanism

For all Category A and, as appropriate, Category B projects, consultation, disclosure and community engagement must continue throughout construction and operation of the project, the borrower will, commensurate with the risks and adverse impacts of the project, establish a grievance mechanism as part of the management system.

Principle 7: Independent Review

For all Category A projects and, as appropriate, Category B projects, an independent social or environmental expert not directly associated with the borrower will review the Social and Environmental Impact Assessment, Action Plan and consultation documentation in order to assess compliance with the Equator Principles.

Principle 8: Covenants

For Category A and B projects, the borrower will include in financing documentation covenants to comply with all relevant host country social and

environmental laws, regulations and permits; to comply with the Action Plan (where applicable) during the construction and operation of the project; and to provide periodic reports in a format agreed with the banks.

Principle 9: Independent Monitoring and Reporting

To ensure ongoing monitoring and reporting over the life of the loan, the banks will, for all Category A projects, and as appropriate, Category B projects, require the appointment of an independent environmental and/or social expert, or require that the borrower retain qualified and experienced external experts to verify its monitoring information.

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Through the EDB Technical Assistance Fund (EDB TAF), the Eurasian Development Bank offers financial assistance for pre-investment and innovative studies at international, country and industry levels. The EDB TAF is designed to enhance the flow of knowledge, skills, ideas, technology and methods that demonstrate best international practice and adhere to international standards of corporate governance.

The EDB's TAF programme is being developed in accordance with the Bank's mission and strategic objectives.

The Technical Assistance Programme for investment project participants is aimed at accelerating and enhancing the efficiency of project implementation; it includes support for feasibility studies, marketing surveys, personnel training and qualifications (on-the-job training, preliminary training, distance education, seminars, training sessions, etc.), administration, project monitoring and project assessment on completion.

The Regional Integration Studies Programme focuses on financing research and educational projects. Priority is given to national, international and industry studies of regional integration. These studies may relate to reform in various economic sectors and any accompanying legislative changes, including model legislation, or to integration problems. Grants may be provided for educational projects with an integration element and for seminars, round tables and conferences dedicated to various aspects of economic integration.

The Programme of Support for Innovative Economy is designed to encourage innovation and economic diversification in the member states and the manufacture of competitive, higher-value-added, hi-tech products in non-raw-material sectors. Assistance may be provided for applied studies of innovative industries, clusters and producers, feasibility studies of innovative projects, marketing surveys related to innovative technology, the publication of specialised periodicals and creation of websites.

The Programme of Support for Inter-regional and International Programmes is aimed at inter-regional and international programmes, including those being implemented under the aegis of EurAsEC. Eligible programmes include those relating to cooperation between the border regions of the Bank's member states and other countries in the region. Support may also be provided for applied studies, open seminars, round-tables, forums, conferences, publication of periodicals and creation of websites dedicated to inter-regional and international cooperation.

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