

MISCELLANEOUS TOPICS

THE PROBLEMS OF ECOLOGY MONITORING AND ENVIRONMENTAL INFORMATIONAL MANAGEMENT SYSTEMS (EIMS) IN CENTRAL ASIA

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The questions of rational use and safety of the natural resources remain a key parameter in the region with prevailing agricultural production. In former Soviet Union monoculture cotton production in Central Asian countries like Tajikistan, Uzbekistan, Kazakhstan, Kyrgyzstan and Turkmenistan brought about many ecological problems. Among others the Aral Sea problem is of major interest as it could be recognized as crucial. These days we can observe the results of careless policy of USSR Government in the form of deficit of water in the basin of Aral Sea. Secondly, there are many other problems like air pollution, land degradation, and waste management in the region of Central Asia which require joint actions. These sets of problems were the subject of project “Capacity Building in Environmental Informational Management Systems (EIMS) in Central Asia”, and were supported by the Government of Finland. Author of this presentation was contributing to the project as domestic analytical laboratory expert and is eager to share its main achievements. It would not be possible without active role played by NGO – Helsinki Group in the project implementation and its representative Mikko Punkari who enabled efficient resolution of all goals under this project. During the project implementation it was found that currently all water infrastructures in Tajikistan, whether be it water supply and sanitation, irrigation or flood protection, are in poor condition. This has dramatic impact on daily life of people, affecting their health, diminishing food safety, limiting food production, and damaging habitat and infrastructures. Although costly, actions are necessary and urgent. During the project implementation basic indicators for water, air and state land degradation monitoring were developed and proposed and will be presented at the conference. For example, at the initial stage set of indicators for water such as biological oxygen demand (BOD), chemical oxygen demand (COD), salinity, and heavy metals were measured. In future other wider parameters which include conductivity, pH, temperature, dissolved oxygen, turbidity, suspended particles, nutrients, organic pollutants (hydrocarbons, phenols, VOCs, etc.), pesticides (triazines, chloroorganics, etc.), microbiology (total coliforms, fecal coliforms, streptococci, salmonella), hydromorphology, biological activity, flora and fauna, ecotoxicity tests will be subject to study and discussions. For a long time it was difficult to have a clear picture of the water, air, soil situation, not only because of absence of monitoring system but due to different data produced by various independent and isolated institutions as well. Today situation with water quality information is improving. The ecological monitoring and database collection system has been established. This EIMS opens to consumer ability to have an accurate description of ongoing situation. These data also aimed to serve as a basis for deciding any actions in water management.