PROJECT DOCUMENT

Water quality monitoring in the Kyrgyz Republic (KGZ-Water)[1] _

July 18th, 2011

Submitted by Finnish Environment Institute (SYKE)

In cooperation with
State Agency of Environmental Protection and Forestry of the Kyrgyz Republic (SAEPF)
Memorandum of Understanding signed on November 9th, 2010

[1] Water quality addressed by terms of chemical, microbiological, biological and radioactivity determinants (Water quality variables)

Contents

Abbreviations

ADB	Asian Development Bank
APEC	
BOD7	Biochemical oxygen demand in 7 days. Organic pollution.
CA	Central Asia
CAREC	Central Asia Regional Economic Cooperation
CEP	Committee on Environmental Policy within UNECE
EEA	European Environment Agency
EECCA	Eastern Europe, Caucasus, Central Asia
EfE	Environment for Europe
ENVSEC	Environment and Security Initiative. Supported by UNEP, UNDP, UNECE, OSCE, NATO
EPR	Environment Performance Review http://www.unece.org/publications/environment/epr/epr_kyrgystan.html
ESC	**E**cological **S**ecurity **C**onception of the Kyrgyz Republic (2007) http://www.cawater-info.net/news/02-2009/13_e.htm
EUWI / EECCA	http://www.euwi.net/eecca-meetings
FinWater WEI	Programme for Finland's water sector support to the EECCA countries
GOST	Gosudarstvenii Standard (in Russian). A standard of process or product accepted by an standardization authority
ICI	Institutional Cooperation Instrument by the Ministry for Foreign Affairs, Finland
ICT	Information and Communication Technology
ISO	International Standard Organization
IWRM	Integrated Water Resource Management
KR	The Kyrgyz Republic
KS	Kyrgyz Standard
MEP	Ministry of Environmental Protection, the Kyrgyz Republic (until 2001)
MFA	The Ministry for Foreign Affairs, Finland
MH	Ministry of Health KR
mgmt.	management
MoU	The Memorandum of Understanding between the State Agency of Environmental Protection and Forestry of the Kyrgyz Republic and the Finnish Environment Institute
MPEI	Monitoring Program for Environmental Indictors as part of the uniform state system of environmental monitoring
NEIS	National Environmental Information System
NEF	National Environment Fund
NFP	National Focal Point
NGO	Non-Governmental Organization
NH4	Ammonium, a water quality determinant
NO3	Nitrate, a water quality determinant
NWQMP	National Water Quality Monitoring Program
OECD	Organization for Economic Co-operation and Development; OECD EAP Task Force; Task Force for the Implementation of the Environmental Action Plan (EAP) http://www.oecd.org/document/60/0,3343,en_2649_34291_43521468_1_1_1_1,00.html
ODA	Official development assistance
OSCE	Organization for Security and Co-operation in Europe,http://www.cawater-info.net/news/02-2009/10_e.htm
P	Phosphorus, a water quality determinant. A reason for eutrophication.
PD	Project Document
QA/QC	Quality Assurance and Quality Control
SAEPF	State Agency of Environmental Protection and Forestry of the Kyrgyz Republic,http://www.nature.kg
SC KR	Security Council of the Kyrgyz Republic
SoE	State-of-the-Environment reporting
StatCom	Statistical Committee of the Kyrgyz Republic
SYKE	Finnish Environment Institute (former abbreviation was FEI)
TA	Technical Assistance
Toktogul	http://www.cawater-info.net/news/02-2009/09_e.htm
ToR	Terms of Reference
UNDP	The United Nations Development Program
UNECE	The United Nations Economic Commission for Europe
WGEMA	Working Group on Environmental Monitoring and Assessment under the UNECE Committee on Environmental

	Policy (CEP). The whole abbreviation UNECE/CEP/WGEMA http://www.unece.org/env/europe/monitoring/index.html
WEI	Wider European Initiative http://formin.finland.fi/Public/Print.aspx?contentid=141534&nodeid=15317&culture=en-US&contentlan=2
w.q.	water quality
w.q.m.	water quality monitoring
WS	WorkShop

1. Background and justification

Introduction

The initiative and the need for a water quality monitoring project in Kyrgyzstan came up at first unofficially in connection with the frequent meetings and cooperation within the context of the UNECE Committee on Environmental Policy (CEP), especially within its Working Group on Environmental Monitoring and Assessment whose work Kyrgyzstan and Finland have actively participated in. Since 2008 the very need for support has arisen due to the obligations of Kyrgyzstan to fulfill the revised scheme on water quality monitoring in connection with indicators-based reporting within the 'Environment for Europe' process. Within the process, a revised scheme for indicators-based reporting has been prepared for EECCA countries.

Due to the increased obligations and requirements in the field of environmental monitoring and reporting, the State Agency of Environmental Protection and Forestry of the Kyrgyz Republic (SAEPF) made an initiative to strengthen co-operation with the Finnish Environment Institute (SYKE) in the field of water quality monitoring, and the first preparatory visit and negotiations took place in Bishkek in 2008. After the revolution in Kyrgyzstan in 2010, a second visit to Bishkek was made in October-November 2010 to prepare the Memorandum of Understanding (MoU) and to find out whether the project assumptions are still valid. After the second visit the project document has been prepared and an effective working relationship has been established through close communication (email and telephone) between experts from both institutes.

The Kyrgyz Republic is one of the EECCA countries and applicable to ODA grants. The FinWaterWEI programme – Finland's water sector support to the EECCA countries under the Wider European Initiative (WEI) – serves Finland's Development Policy Programme and backs up implementation of UNECE's legal instruments on water. Having its focus on water, this water quality monitoring project is included into the project portfolio of FinWaterWEI programme.

Based on mutual preparations, the Memorandum of Understanding (MoU) on cooperation between Finnish Environment Institute (SYKE) and State Agency of Environmental Protection and Forestry of the Kyrgyz Republic (SAEPF) has been signed on November 9th, 2010 in Bishkek, Kyrgyzstan. After that the preparations for the project document continued and the kick-off meeting to consolidate project preparations was held in Bishkek on May 25th. The SAEPF has officially appointed persons to finalise the preparations and to provide their input in the first stages of the project start-up.

Earlier co-operation

Since 1998, a set of Environmental Monitoring and Management Capacity Building TA projects have been carried out in Kyrgyzstan, in which SYKE and the predecessors of SAEPF have been involved (donor; lead contractor):
1998-2000 (ADB ; Scott & Wilson and MFA, SYKE)
2001-2003 (ADB ; Chemonics Int.)
2004 (MFA, Finnish Geological Survey) and
2004-2006 (MFA, SYKE)
The overall objective of these earlier projects has been to strengthen the capacity of environmental administration to carry out activities of environmental permitting, to spot pollution of ground water sources under uranium process waste tailing sites, and to enhance national institutions' capacity to perform institutionally goal-oriented environmental monitoring and share the accumulated information with each other. The latest evaluation[2] provides information on the successes of the above mentioned projects and includes also suggestions on further improvement in the national institutions' performance.

[2] Evaluation of Finland's Development Cooperation in Central Asia, The Caucasus, and Eastern Europe (Starr, F., Cornell, S. and Oksajarvi-Snyder, M.). 2009.

Partner organization SAEPF

Since 1998 Kyrgyzstan has experienced significant institutional changes within its government, which, in turn, have affected the institutional and policymaking framework for environmental protection and sustainable development. Until February 2001, the role of the national environmental authority was fulfilled by the Ministry of Environmental Protection (MEP) which was then merged with the Ministry of Emergencies and formed the Ministry of Ecology and Emergencies.

After the revolution in March 2005 the merged Ministry was split again in two separate organizations - a Ministry and an Agency. The outcome was the Ministry of Emergencies and a new national environmental authority; the State Agency of Environmental Protection and Forestry (SAEPF)[3]. A key negative consequence was the downgrading of the status of the national environmental authority.

The point is; While the competence of SAEPF appears to be broader than the competences of the former Department of Ecology and Nature Management of the former Ministry of Ecology and Emergencies, the status in reality for the State Agency is lower than that of a ministry or even a committee. This creates difficulties when it comes to defending ecological interests, raising environmental priorities and securing budget resources.

Strategies of the partner organization

The major current strategic document for environmental protection and sustainable development in the Kyrgyz Republic is the **E**cological **S**ecurity **C**onception for 2007-2020 (ESC 2007)[4] /3/. SAEPF has been set to be the lead institution in promoting it and the Conception is the main strategic document guiding the work of the agency. The ESC summarizes the current situation with the environmental monitoring and the needs for its development on the following way: "…Current system of environmental monitoring does not meet modern requirements. A number of components (pollutants), which are objectives of monitoring, were drastically reduced. There is no unified national monitoring system in the republic. Poor interagency coordination of the monitoring systems of different ministries and agencies does not allow carrying out fully objective assessment of the state of environment and obtain on-line information required to make important environmental decisions. The main directions to improve system of environmental monitoring and informational management are: 1) to develop the uniform state system of environmental monitoring, 2) to improve the legislation base regulating interaction of the republican executive bodies implementing the state environmental monitoring and forming the fund of informational resources, 3) to improve indicator based system; develop standard methodology of the national environmental monitoring in order to ensure data reliability and comparability by the sectors of economy 4) to ensure openness and transparency of information on the state of environment and potential ecological threats, 5) to disseminate of environmental information on ecological security among the population involving the mass media, 6) to design environmental Internet pages, publish ecological bulletins and magazines….".

Having focus on water, the project will provide capacity building by addressing in particular points 1), 2) and 3) and to a lesser extent points 4), 5) and 6). SYKE's wide expertise covers majority of these points but the actual application into current local practices is in the hands of SAEPF and its political and expert collaborators whose work SYKE will back up. The commitment to UNECE/CEP work is expected to more or less directly help SAEPF in its mission to make progress within the Kyrgyz Ecological Security Conception. SAEPF's experts have participated e.g. in the preparation of the UNECE/CEP/WGEMA guidelines which aim at improving the performance of water quality monitoring /7/.

Pre-project situation

In 2005 Kyrgyzstan adopted the Water Code. It promotes actively the integrated water resources management (IWRM) approach through new provisions that establish the National Water Council

[3] Web site of SAEFP: www.nature.kg

[4] Enforced in Nov 2007 by the President's Decree No 506 the partner organization (SAEPF) has been set to be the lead for promoting ESC 2007

(NWC) and river basin councils and require development of a National Water Strategy and basin management plans. It also includes new provisions on drinking water and dam safety. Except for the provisions on the establishment of the NWC, many provisions of the Water Code have yet to be implemented.

The pre-project situation may be characterized briefly as follows: (a) There are still shortcomings in legislation or other contradictions in setting basic requirements for environmental monitoring and reporting, this has also a connection to state budget allocations; (b) Lack of coordination and communication between environmental, health and statistics[5] authorities at different levels in collecting and handling environmental data coherently; (c) Lack of trust between public authority and industry, and to a certain extent between public authority and citizens; (e) Degraded water-environmental and hydrological[6] monitoring networks and capacities to carry out reporting compared to former Soviet times; (f) Weak state-of-environment reporting, data storage and data exchange capabilities including data exchange on the quantities and qualities of trans-boundary waters.

The pan-European[7] environmental assessments and the country-specific environmental performance reviews[8] have constantly reconfirmed that improvements in environmental monitoring and data collection, transfer and exchange practices are needed. This gives even more weight to the project's role in improving the capacity of the partner organization to respond to the increasing commitments related to domestic and international water quality reporting and also to develop inspectors' ability to control waste water permits thus providing a way to improve water quality conditions[9].

Owner of the project and direct beneficiaries

The **State Agency on Environment Protection and Forestry KR (SAEPF)** is the main Kyrgyz agency responsible for environmental management and the owner of the project. SAEPF's tasks are to develop and execute national monitoring legislation on environmental and water monitoring. SAEPF collects levies and fees into the National Environment Fund (NEF) and uses the resources in environmental management functions. Sustainability of project results is interlinked with SAEPF's abilities to maintain resource inflow to NEF.

In practice, the main direct beneficiary within SAEFP is the monitoring department and its ecological laboratory that carries out water analytics and water sampling. The lab exercises control on industrial waste water permits and provides assistance when state control inspectors need help in collecting samples or need analytics services to check whether the quantities of pollution discharged are within pre-set limits or within carrying capacity of the recipient. The laboratory takes also part in trans-boundary water quality studies and monitoring. Indirect beneficiaries are the SAEPF's regional laboratories and central and regional water quality managers and technicians, who exercise control functions of permits. All their activities result in revenues into National Environment Fund (NEF) thus providing resources for water protection management in Kyrgyzstan.

[5] This has been broadly recognized within EECCA countries, and through UNECE/CEP/WGMA cooperation the environmental authorities and national statisticians have started to communicate with each other. One of the purposes of this project is to back up this process;

[6] High altitude glacier and snow reserves in Kyrgyzstan, Tajikistan and Afghanistan are crucial early warning indicators on upcoming water and drought situations in the semi-arid Central Asian agricultural area.

[7] pan-Europe (UNECE framework): Western and Central Europe, South Eastern Europe, Eastern Europe, Central Asia, Caucasus, in all 53 countries including the Kyrgyz Republic. Coordinated by European Environment Agency, the "Environment for Europe" reporting takes place in every 4 years and all the countries have to deliver their contribution.

[8] UNECE / CEP has Environmental Performance Review (EPR) program for EECCA. For the Kyrgyz Republic the latest, EPR has been carried out in 2008-2009 (2nd EPR).

[9] To protect human health in terms of safe water quality for people using surface water sources for drinking and their household purposes. People, who have to use open surface water sources without any treatment, belong into the poorest segment of the population. Through this way the project will indirectly affect on poor people's living conditions by influencing to improvements of the quality of water they use.

Another direct beneficiary within SAEFP is the division of Environmental Policy and Strategy which takes care of the State-of-Environment reporting on national and international level. Among its tasks is to carry out Environment-for-Europe reporting, to provide means for improved decision making within UNECE context and to improve access to environmental and water information, including maintenance of SAEPF's internet pages www.nature.kg .

Skills of the Finnish Environment Institute (SYKE)

The Finnish Environment Institute's (SYKE) expertise is extensively used for the wide range of issues, including water management and monitoring, waste, chemicals, contaminated soils and biodiversity. SYKE develops environmental management methods and systems, and co-ordinates the prevention of environmental damage. SYKE is subject to the Ministry of Environment and to the Ministry of Agriculture and Forestry. Staff is about 650 in total. Additionally, SYKE issues certain statutory permits, evaluates the effectiveness of environmental permit systems and provides expert help to regional centers of Economic Development, Transport and Environment. SYKE's expert services are well used by environmental administrations, industries, companies and NGOs. SYKE provides all interested parties with a range of library services and information on emissions, chemicals, water resources, the current hydrological, water quality and ecological status of rivers and lakes, and biodiversity. SYKE runs National Reference Laboratory functions addressing water tests. The aim is to work practically and proactively to meet the needs of customers, using the latest technology and research data. Information produced by Finland's environmental administration is accessible on the website: www.environment.fi

SYKE can provide specific skills and knowledge in the preparation of national water quality monitoring programs including water sampling and laboratory procedures. In Finland, SYKE has been the lead in compiling nation-wide water monitoring programs, it has developed the central national reference laboratory for water and SYKE runs the accredited certification system for field-technicians collecting water samples. In Finland, the main components of water quality monitoring have been in place since 1970, when SYKE's predecessor, the National Board of Waters, was established.

SYKE's experience of UNECE's Water Convention and of its precursors stems from the more than 40 years' experience of work carried out on trans-boundary river monitoring and water management with Russia in the River Vuoksi watercourse. Finland and Russia are signatories to the Water Convention as are Kyrgyzstan's neighbours Kazakhstan and Uzbekistan. Kyrgyzstan is considering its access to UNECE's Water Convention or Protocol on Health and Water but has restrained herself so far. Kyrgyzstan is of the opinion that the Water Convention addresses compensations of water services weakly.

Commitment to the cooperation

As for international environmental reporting, SYKE and SAEPF are the official national Focal Points at European Environment Agency's (EEA) "Environment for Europe" reporting system like 's is in Kyrgyzstan. This means that both partner institutions are under the same umbrella of EEA coordination and can share experiences and procedures when responding to new needs of international water quality reporting called for either by EEA or UNECE/CEP[10] secretary. UNECE/CEP is a strategic partner for both partner institutions and provides a platform for better water management and decision making.

Stakeholders and indirect beneficiaries

Like outlined in the Kyrgyz Ecological Security Conception (ESC 2007)/3/, **the national development goal** is to create a uniform state system of environmental monitoring so that water quality monitoring is part of it. It should meet the water assessment and reporting requirements both domestically and internationally. In 2009, this issue has been discussed thoroughly between UNECE/CEP representatives and Kyrgyz authorities when preparing the 2nd Environmental Performance Review (EPR). To support

[10] UNECE/CEP secretary is the lead in organizing environment ministerial conferences in every 4-5 years, where the main directions of water management will be laid down. The next conference is in Kazakhstan in Sep 2011.

moving towards this national development goal, stakeholders like HydroMet, Ministry of Health, APEC of the Parliament and National Statistical Committee are interlinked with SAEPF to outline the main common components of environmental & water monitoring, including exchange of information and forms of reporting between different government authorities. Without exception these stakeholders have their say when preparing National Water Quality Monitoring Plan and they will benefit directly from the project activities. They will receive training, know-how and information, and they will also provide their inputs at seminars and monitoring field exercises, because SAEPF needs their cooperation. So, the project's set out is such that these stakeholders are direct beneficiaries to certain extent, and they will participate in training and seminars during the course of the project as will be agreed with SAEPF. Some of these beneficiaries will have their participation in the Project Board.

The very intention is to provide a platform for national coherence to improve water quality monitoring and reporting. An underlying model for this is the inter-sector program of Environmental Monitoring in Finland 2009-2012, which is coordinated by the Finnish Ministry of the Environment /4/. This has turned out to be a good administrative improvement linking different governmental sectors under a broad environmental monitoring objective thus providing better possibilities to carry through cross-sectoral causal studies to back up top level decision-making for more efficient environmental policies.

The main stakeholders and participants from the point of view of inter-sectoral monitoring co-operation are:

Main Hydro-Meteorological Administration (HydroMet) KR
The work of the Hydro-Meteorological administration includes observing and monitoring meteorological and hydrological parameters and water, soil and atmosphere quality indicators, including water quality and radioactivity measuring. The Hydro-Meteorological Administration produces weather prognoses, data of water level in rivers, estimates the productivity of crops and hydro-meteorological extremes. The World Meteorological Organization (WMO) Convention facilitates worldwide cooperation in establishing and operating networks of meteorological stations, including observations of atmospheric precipitation and hydrological and meteorological and other geophysical observations.

Ministry of Health; Scientific and Production Centre for Preventive Medicine KR
It samples potable water in urban and village distribution and takes care of food hygiene and hygiene of public places and licensing. Main areas of activity concerning environment are studying environmental and occupational conditions and their health effects on employees and the population in various regions of the republic, developing and implementing new re-search, diagnosis, treatment, prevention and rehabilitation technologies in the field of infectious diseases and hygiene. One of the key focuses is "Environment and Health".

The Parliament (Jogorku Kenesh) of the Kyrgyz Republic
The Agrarian Policy and Ecology Committee (APEC) (Комитет по земельно-аграрным вопросам и экологии) of the Parliament (Jogorku Kenesh) of the Kyrgyz Republic was also attending at the project preparation meeting in 2008. Through this committee environmental monitoring issues will be promoted into legislation.

National Statistical Committee KR
Into the tasks of National Statistical Committee include compiling environmental and water statistics and reports concerning social conditions; to collect and maintain data files on society; to provide information service and promote the use of statistics; to conduct studies and surveys related to statistics compilation and develop statistical methodology; to develop the national statistical service in co-operation with other Government officials, to co-ordinate the national statistical service, and to participate in and coordinate international statistical cooperation. A member of the Statistical Committee is participating in the UNECE/CEP/WGEMA together with SAEPF personnel.

Indirect beneficiaries
There are five regional environment centers under SAEPF's direction, who will indirectly benefit from the project in terms of training, chemical analyses support and quality assurance and quality control services, including laboratory inter-calibrations.

2. Objective of the cooperation

The objective of cooperation is the exchange of experiences for capacity building to adopt broadly recognized good practices to carry out water quality monitoring for water management.

The purpose is to develop capacities to design and implement the National Water Quality Monitoring Program (NWQMP) in terms of improving administrative and legislative backup, upgrading QA/QC performance of laboratory and field work, and providing technical assistance in preparing indicators-based assessment reports. The expected outcome is a better institutionalized water quality monitoring program and it will cover the control of waste water permits, ambient water quality and cross-border water-borne substances and germs. An overall administrative performance indicator is the status of running and carrying through NWQMP.

Indirectly, this will convey to more efficient control practices of waste water and water use permits strengthening revenues inflow into National Environmental Fund. Later on, there should be more capacities to lay down more goal-oriented national water use, management and protection programmes. These will be discussed and outlined within the process of ongoing National IWRM Policy Dialogue having held its latest congress in May 2011.

The detailed performance indicators are the number of renewed standard operational procedures (SOPs) for water sampling and laboratory tests and in use including the number of quality assurance and quality control practices improved. Another set of indicators are the UNECE water indicators in producing state of environment reports (SoE) like indicated in the publication of "Guidelines for the Application of Environmental Indicators in Eastern Europe, Caucasus and Central Asia (EECCA)" /1/. The Guidelines cover in all 36 key indicators[11], of which 11 address water.

Other processes in line with the objectives

A draft document on detailed guidelines on water quality has been developed within the project Water Quality in Central Asia, a project funded by the UN Development Account and implemented in cooperation between UNECE and CAREC. It builds on “Guidelines on monitoring and assessment of trans-boundary rivers” from March 2000 developed by the Task Force on Monitoring and Assessment under the UNECE Convention on the Protection and Use of Trans-boundary Watercourses and International Lakes (UNECE Water Convention). The project will use this guideline document to the extent possible and provide valuable test experience on ground to further development. A conference on this was held in Bishkek in May 2011 having focus on the five key parameters (NO3 & NH4, O2, COD, TDS, TSS, current / river discharge) as a minimum requirement to be measured within water quality monitoring.

3. Expected results and activities

The following project components (1) – (3) are in line with working program of UN/ECE Environmental Policy working group on Environmental Monitoring and Assessment.

[11] For each indicator there is a description on the importance of the environmental issue for which the indicator has been designed; its international targets; requirements for its measurements and data collection; internationally agreed methodologies for the indicator development; and references to useful literature and supporting Internet sites. Discussion how to use and how to compile indicators is an ongoing process in UNECE/CEP/WGEMA working group participated by personnel from SAEPF and SYKE. thus providing direct support for running through the project.

Component 1: Policy package supporting a National Water Quality Monitoring Program (NWQMP).

Activity (1): Upgrading water monitoring legislation and preconditions to run national water quality program; The component will be worked out in strong co-operation with the EU/WI National Water Policy Dialogue on integrated water resources management in Kyrgyzstan (NPD-IWRM/Kyrgyzstan)

Result (1) : Policy package supporting a National Water Quality Monitoring Program (NWQMP); A set of proposals for backing up Kyrgyz environment administration to design and implement national water quality monitoring program so that ground for continuity and consistency exist. The preparation for this will be worked out by the Task Force 1 (TF1, see page 18).

Component 2: Indicators-based reporting on water quality monitoring

Activity (2): Capacity building on producing indictor-based reporting as a part of the national water quality monitoring program; Based on the decision in the environment ministers' conference in Beograd in 2007, the UNECE guideline (2007) on "Environmental Indicators and Indictors-based Assessment Reports" was published. The follow-up for this decision will take place in the ministerial conference in Astana in September 2011 (Kazakhstan). The purpose of this component is to facilitate using these indicators. In all, there are 36 indicators of which 11 are water indicators. Training and capacity development in compiling these indicators and including them into national water quality monitoring reporting system is one of the priorities of this project. To fulfill this activity, the strategic partner is the UNECE/CEP/WGEMA, which has a joint co-operative working group with UN Statistics Conference. The meetings of this working group will be held in July and in October in 2011 to provide more information. Finland and Kyrgyzstan are active participants of this working group with other countries from EECCA. This provides the common overall ground and platform into which directions indicators-based assessments will develop based on experiences of their use.

Result (2) : Indicators-based reporting of water quality monitoring recognized and in use; The progress towards national water quality monitoring program, which includes capacity development for preparing the UNECE/CEP recommended indicators-based water quality reports. The preparation for this will be worked out by the Task Force 2 (TF2, see page 18).

Component 3: Laboratory and field work with appropriate technology

Activity (3): Capacity building on water laboratory and on water sampling; Promoting the objectives of water quality monitoring in terms of improved water sampling procedures and laboratory analytics of the indicated water quality parameters. Guidelines for the parameters have been developed within the project Water Quality in Central Asia funded by the UN Development Account and implemented by UNECE and CAREC. Within ecological lab of SAEPF there are needs to increase competence in sampling and analysing the indicated water quality parameters properly. This helps to act more credibly as the central national lab for other labs. The purpose is to provide quality assurance services and inter-calibration tests for regional (oblast) laboratories. This will support their abilities to check the self-monitoring of waste water permits or to follow up whether the discharges are within the designated limits.

Result (3): Laboratory and field work equipped with appropriate technology to deliver basic services for national water quality monitoring and for compliance enforcement of water permits; A set of revised and renewed procedures for Quality Assurance and Quality Control (QA/QC) and upgraded tools and instruments to carry out water sampling and to test for water quality. The inter-calibration program between laboratories is in progress. The preparation for this will be worked out by the Task Force 3 (TF3).

Table 1. A logical framework in brief on results, indicators and activities. The full logical framework of the project is provided in the Appendix 1.

Result (Component)	Indicators	Activities
1. Policy package supporting a National Water Quality Monitoring Program (NWQMP).	A set of upgraded statutes backing up water quality monitoring.	1.1 Needs assessment for capacity building of water quality monitoring legislation and administration. 1.2 Workshops (WS) and seminars to exchange experience on preparing national water quality (w.q.) monitoring programme, including trans-boundary monitoring, including inter-sector seminars on implementing the road map to National Water Quality Monitoring Program (NWQMP) and how to reach its major milestones and to overrun the barriers 1.3. A study tour to Finland to get the latest know-how about regulatory and administrative arrangements to meet the objectives of w.q. monitoring 1.4 Seeking political commitment to get firm regulatory basis and political support for national water quality monitoring; Needs assessment to improve water quality monitoring regulations
2.Indicators-based reporting of water quality monitoring recognized and in use.	Publications or www-pages produced for reporting monitoring data in the form of indicators.	2.1 Needs assessment for capacity building to prepare indicators-based reports. 2.2 On-the-job training to use UNECE guidelines, www-pages and manuals on water indicators and indicator-based reporting. 2.3 Upgrading and procurement of data management and communicating tools to carry out reporting including teleconferences with UNECE/CEP and SYKE advisors on indicators and data mgmt. 2.4 Study tour or hands-on working of Kyrgyz experts in Finland to get deeper understanding how to set up a modern water quality database and how to provide public access to environmental information.
3. Laboratory and field work equipped with appropriate technology to deliver basic services for national water quality monitoring and for compliance enforcement of water permits.	Number of prepared or upgraded Standard Operational Procedures (SOP) in use at the Ecological Laboratory to meet the requirements of relevant ISO or GOST standards.	3.1 Needs assessment for capacity building of laboratory and sampling. 3.2 Training workshops for exchange of experience on capacity building for QA/QC and for laboratory inter-calibration program including preparing SOPs. 3.3 Equipment upgrades and procurements for laboratory tests and sampling for water quality. 3.4 Study tour to Finland to get practical experience and to hear lessons learnt to carry through trans-boundary water quality monitoring within the frame-work of Finnish-Russian trans-boundary water agreement. 3.5 Field exercises to collect samples and on-site measurements

4. Approach on capacity building

The project is planned so that it is adjusted to the already ongoing activities of the partner agency as tight and as deep as possible thus broadening and deepening the skills and improving tools and working procedures. A capacity building needs assessment in detail will be carried out for each project component at the beginning of the project. In Component 1, capacity building will be provided for all the stakeholder organizations mentioned in page 9. In other two components the capacity building will be mainly directed to SEAPF's personnel. Participants' capability to get benefit for their work performance will be assessed. Some have already participated in earlier capacity building projects meaning that their background is quite well known. The outcome of the needs assessment together with the capability assessment will be taken into account in setting up the ambition level of the project. Based on participant CVs received so far, all seem to have local vocational or university level education in chemistry or biology or related sciences. An initial list of participants is provided in the chapter 8. The latest environmental performance review /2/ will also be taken into account in planning. Based on the findings of the needs assessment, the Project Board (PB) will hold its meeting to discuss the objectives, policies and organizational issues of the project. At the same time the next 6 months working program will be agreed on..

The overall approach of the project is the Integrated Water Resources Management approach (IWRM) the principles of which Kyrgyzstan has adopted. The main principle of IWRM is equity: the basic right for all people to have access to water of adequate quantity and quality. Also the principle of environmental and ecological sustainability is included in the IWRM: The present use of the resource, like water, should be managed in a way that does not undermine the life-support system thereby compromising use by future generations of the same resource. In the long term, the activity has a positive impact on the lives of women, and on gender and social equality. This will be attained through awareness rising on water quality and its reflections and impacts to health risks.

Approaches and methods of capacity building to be used are exchange of experiences on good practices, real cases on sampling, laboratory tests' QA/QC, inter-calibration and EEA[12] -tools for reporting. Training materials to be used should be in Russian language which may to some extent affect what kinds of issues are possible to deal with in practice. SYKE has already prepared study materials in Russian covering issues of water sampling /5/, biological monitoring methods /6/ and laboratory QA/QC. Other good materials have been produced in the context of neighborhood-cooperation between Finland and Russia, or by Finnish-Russian trans-boundary water commission or UNECE/CEP. The project should have a reservation for preparing new translations either from Finnish to Russian or from English to Russian. As well, all instruments to be procured should have its user support in Russian. Recognizing difficult communication circumstances, the interpretation and translation needs are to be taken fully into account in the budget allocations.

Real-life examples will be provided during the study tour field expeditions in Finland within the context on how water quality monitoring tasks are carried out fulfilling Finnish-Russian trans-boundary water agreement. In practice, samples are collected once per month providing a good platform to be included in study tour programs. On the other hand, field expeditions to Chu-Talas border area between Kyrgyzstan and Kazakhstan provide Finnish experts an opportunity to get an understanding about the specific conditions underlying the local water quality problems. These are linked to high altitude mountain river systems and their connection to glacier dynamics. This will provide capacity building and understanding on global water and climate change connections for both partners.

[12] European Environment Agency has already provided same reporting tools to Finland and to Kyrgyzstan to fulfill reporting obligations within "Environment for Europe" process.

Context within Finnish development policy

The cross cutting themes of the Finnish development policy are:
1) Promotion of the rights and the status of women and girls, and promotion of gender and social equality
2) Promotion of the rights of groups that are easily excluded and discriminated, particularly children, persons with disabilities, indigenous peoples and ethnic minorities, and the promotion of equal opportunities for participation
3) Combating HIV/AIDS; HIV/AIDS as a health problem and as a social problem

The Project doesn't address directly any of the items mentioned above. However, water is a cross-cutting issue for the society and improved water quality conditions help the living conditions of women and girls. Women are water users in households, in taking care of children, laundry, home-gardens and for producing dairy products and watering domestic animals. Improving water quality or being better informed on bad water quality will help women to take better care of their daily duties and avoiding use of bad water. In practice, women bear the cost of bad water in their daily house keeping operations including the burden of sick family members. When clean water is unavailable, whole communities remain impoverished and are much more likely to suffer from diarrhea, which is one of the cause of infant deaths. When the water is dirty, villagers also have to spend several hours each day collecting firewood or use dung as fuel--- which gives off harmful fumes --- or buy charcoal to boil water. Higher altitudes in Kyrgyzstan need extended boiling times meaning increased costs.

The indicator for house-hold water quality is the amount of gastro-intestinal sicknesses recognized per year in local health-care centers or indirectly infant mortality in some cases. If only possible, the project will establish contacts to one or two health-care centers in the project area with help of the Ministry of Health (MH). This is a reason to have a representative from the MH in the Project Board (like discussed in the Chapter 1, clause "Stakeholders and indirect beneficiaries"). This is to get a direct contact and information source to recognize consequences of unsafe water in the project area. The project will support water quality measuring for hygienic indicators to track importance of needed water management actions in terms of sanitary measures.

Infected people are socially a vulnerable part of the society and they need safe water as well. A prerequisite for sustainable social and economic development is a healthy and secure environment and access to safe water. In Kyrgyzstan, poverty is linked with unsafe and polluted environment and low-income level people have to use contaminated and hygienically unsafe open surface waters sources for drinking and household purposes. These are mainly irrigation canals. From time to time typhoid fever epidemics occur among migrant people and gastroenteritis are very common. Sometimes the statistic show that the number of diarrhea incidents has even decreased, but the reason can be as well that people living under the poverty line are dropped out from health care services and their cases of illness don't enter into statistics.

Currently the population living near the polluting enterprises or close to former uranium or mining processing waste dumps or tailings sites, have only little information, if any, on the actual health hazards, which the contamination possibly causes for them and their children. They are as well a vulnerable part of the society in terms of health consequences of their degraded living environment. At the same time the water protection authority is under-equipped and in lack of capacities to tackle the pollution down in terms of controlling the discharges and emissions so that they could be within the carrying capacities of the environment. Pollution control is carried through by environmental impact assessments, issuing justified permits or licenses and controlling the fulfillment of permit conditions. All this benefit people, who are bound to have their dwellings and lifetime close to industry or dumping sites. Especially house-fives and children are bound to their homes and near-by surroundings, and if these areas are contaminated they are not able to protect themselves and their exposure time under pollution is

disproportionate to men, who are better able to spend their time elsewhere like at working places. Improving monitoring so that contaminated water sources are better known and characterized will help managers and people to respond or manage risks and beneficiaries are women and children, who are bound to live within conditions where their homes are.

As to access to environmental information; to take fully into account ethnic minorities, e.g. living close to uranium dumping sites, there are at least 16 different languages by which the information should be delivered in Kyrgyzstan. How to help these people to avoid contaminated areas will be discussed and outlined during the project. The project provides information in preparing "a big picture" of Kyrgyz national water quality conditions indicating, where the worst water are, and which problems should be tackled first.

Public access to information, including information on the environment, is an important prerequisite for a democratic society. Therefore the project also has a democracy and human rights aspect. Strengthened water monitoring and management improves situation so that the decision makers have reliable information, which enables to make prioritized, cost-effective water management decisions serving the people.

The rough overall approximation is that approximately 80% of participants will be from SAEPF and the rest from stakeholder organizations due to reasons, which have been discussed in the section of "Stakeholders and indirect beneficiaries" in the Chapter 1.

Gender issue will be recorded through-out the project and the goal is set to 50-50. Earlier similar projects have shown a little higher participation for women, and the underlying reason is that if the project has a direct focus on laboratory development it brings in more women.

5. Proposed activities' relation to the other activities of the partner agency

The project is bound to the partner organization's sector of ecological monitoring which covers water, air and soil contamination issues. The other parallel partner activity is the management of nature reserves and biosphere area of the Issyk-Kul[13] lake. Forestry and nature reserve administration issues are important sectors in the partner agency in terms of staff allocation. Forestry has the linkage to water management in terms of issues like erosion, landslides and retaining surface waters to be infiltrated into groundwater sources. The SAEPF organization is presented in Appendix 6. Similar administrative context we can find in Finland where water resource issues are administered by the Ministry of Agriculture and Forestry and water protection by the Ministry of the Environment.

Since the Kyrgyzstan parliamentary elections in Oct 10th 2010 the govt. structure has been in development process. There are high expectations to establish a combined administrative body covering environment and water protection and use of nature resources. However, at the beginning of March 2011, no decisions have been made. As for project's purposes it is anticipated that water sampling, laboratory, permit control and reporting obligations will find their new setting within the same administrative body meaning that project components will stay under the same command.

The project is planned so that it is adjusted to already ongoing activities of the partner organization, so there is staff, some office facilities and service people. Key persons from SAEPF have participated in many UNECE meetings so they are familiar with the overall policy of UNECE objectives. Also the OECD EAP Task Force for the Implementation of the Environmental Action Plan (EAP) and its permitting, enforcement and self-monitoring is well-known for SAEPF's senior managers.

[13] Lake Issyk-Kul, being completely inside the borderline of Kyrgyzstan, is the worlds' 4th deepest lake (650m) and one of the largest in terms of volume (1730 km3). It is still in pristine condition, but if water protection is not properly managed due to increased tourism the risk is to lose its natural purity accompanied by future economic disadvantages.

The upgraded "Environment for Europe" policy outlines will be discussed at the ministerial conference in Astana in Sep 2011 and SAEPF will have a key role there on behalf of Kyrgyzstan. After the conference it might be necessary to refine project's tasks so that they are in line and fulfil the new outcomes and resolutions of the conference.

The expected changes within SAEPF will be seen in how they fulfil the water monitoring program including timely assessments and reports serving decision-making. SAEPF will regularly prepare and publish specialized reports on water quality with the access through internet. These reports should include not only water quality monitoring data together with their interpretation, but also data on water quantity and relevant emission/discharge data. International (e.g. EEA) developments in water quality and quantity reporting are taken into account (/7/, clause 55).

Earlier Japan, Finland and ADB have supported water quality monitoring capacity building. At the moment no specific donor projects are ongoing at SAEPF addressing water quality or covering other monitoring-related issues. During the project, contacts will be established with the developing agencies of Japan and German to communicate about their future project planning that might cover water quality issues.

6. Time schedule

The kick-off meeting for the project has been held in Bishkek on May 25th, 2011. The tentative time schedule and timing of tasks are presented in Appendix 2.

7. Sustainability and perceived risks

The set up of the project is connected to UNECE water monitoring processes to improve water resources management. Both partner countries, Kyrgyzstan and Finland, are involved in UNECE water processes and this provides a common platform and ground for carrying out long term mutual cooperation also after this ICI-project is over. SYKE has had contacts and communication and exchange of experience with the partner and its predecessors since 1998. Based on the experiences so far, the partner organization has provided enough personnel working hours to carry out these kinds of projects which are injected into ongoing processes as subtly as possible and thus avoiding expanding the scope of work.

The progress of the project is an ongoing process within its timeline and the risk is that there might be certain weaknesses on SYKE's side to react to requests for advice or material support in timely manner. This is partly due to language difficulties, because SYKE staff is more favor to use English language as a working language and staff within SAPF like to use Russian language. So the weakness to carry out direct communication between experts or assisting personnel is very limited. This meaning that direct contacts are bound to availability of interpreters and conversations need more time creating increased costs of telecommunications as well. A key issue is to allocate project resources enough to good communication facilities and taking care of their running costs.

The scope of issues to be dealt with are the fundamentals of water monitoring, which both partner institutes have worked on and which are their core tasks. However, the reason to exercise capacity building cooperation arises from the emerging new requirements to prepare improved state-of-environment assessments by using modern lab and sampling techniques and ICT applications within reporting on Environment-for-Europe or preparing national State-of-Environment (SoE) reports, at the same time taking into account exchange of information with National Statistics, whose task is to prepare national official statistics in line with broadly accepted international rules of compiling statistics.

The progress should be towards on-line reporting and delivery of information. This calls for revised working strategies and a new set of skills, tools and capacities at different levels of water and environment management. On the other hand, to carry out nation-wide multi-objective tasks like SoE need effective cooperation between government institutes which is becoming more than important, e.g. in assessing the climate change impacts and outlining adaptation measures in the water sector. So there is need to exchange experiences how to improve administrative cooperation between sector ministries.

In Central Asia, trans-boundary water resources management is becoming more important because water is vital for economic development and scarcity of water is already faced from time to time inflicting disturbances on political climate and insecure perspectives. The destroyed Aral Sea is still a live example of long-term water mismanagement in the region.

When the project is over, the UNECE's program to promote water management within EECCA countries will continue which means that the project results will get their momentum that enhances sustainability. In the future, the upcoming 3rd Environmental Performance Review in Kyrgyzstan, which will be prepared presumably by the end of year 2020, will indirectly evaluate the long-term results, outputs and catalyzing effects of the project.

To get continuity, sustainability and institutional back-up, the UNECE/CEP/WGEMA working group provides a platform for broad communication and exchange of experiences with other EECCA countries; The countries have acknowledged its goals, aims and objectives to improve environmental monitoring and state-of-environment reporting as part of "Environment for Europe (EfE)" process. The WGEMA has prepared 1) the Guidelines for the Application of Environmental Indicators and 2) the Guidelines for the Preparation of Indicator-based Environment Assessment Reports in Eastern Europe, Caucasus and Central Asia (EECCA). In practice, the WGEMA is one of the preparatory bodies for fulfilling resolutions of Ministerial Conferences and preparing the next ones. The latest congress was held in Beograd in 2007 and the next will be in Astana in 2011. As a whole, the issues the project will address are in process on several levels. Connecting the project firmly into EfE process provides ground for continuity although this ICI project itself will be over by the end of 2013.

Taking into account the outlooks on the Central Asian regional cooperation within UNECE/CEP, one of the major setbacks could be that the SAEPF (the representative of the Kyrgyz Republic) will gradually fall aside from being an active UNECE/CEP/WGEMA cooperator. This is to say that if demands gradually increase beyond the level of capacities to respond it is tempting to step aside. The purposed impact of this ICI Project is to back up the SAEPF so that it keeps on going as an active member of WGEMA and through that way it will get all additional values and push for capacity building, which a membership within UNECE can provide.

After getting its independence in 1991, after the break down of Soviet Union, Kyrgyzstan has gone through uprisings in 2005 and 2010, which turned out revolutions. Basically the very reason for revolutions has been corrupt practices of governance. Corrupt practices are still a risk providing its reflections to the success of the Project as well. The partner organization of SAEPF was established after the 2005 revolution and there is imbalance between the amount of staff between Environment and Forestry blocks. The downgrading of environmental authorities described on page 6 has important implications, because performing their key functions often requires an appropriate status to initiate and facilitate inter-ministerial and inter-sectoral cooperation. As a result, it is often not possible for SAEPF to properly carry out its responsibilities with regard to environmental protection or the promotion of sustainable development. If downgrading continues, it will pose a threat mainly to the implementation of Component 1. In such circumstances, the establishment of effective integration and cooperation mechanisms with parallel institutes like Hydromet and Prophylaxis would become even more important. This is one reason why important stakeholders are invited to participate in the project and they have their representation in the Board.

In any case, although organizational changes are probable, the ecological laboratory within monitoring department will most probably keep its entity. At the ecological lab the senior staff has kept its position in all upheavals within past ten years and they will form the back-bone for the activities. The junior staff will get a

significant share of the capacity building, but they are considered to be more volatile. However, based on past experience, capacity to accept and to take in education is well developed among personnel within SAEPF and its collaborators.

8. Project organization and the role of SAEPF in project implementation

A tentative list of SAEPF 's personnel, including collaborators from other Kyrgyz institutes, is shown in the table below. In Kyrgyzstan, like in Finland, water quality monitoring responsibilities are divided between several institutes working under different ministries. This is the reason, why collaboration and coordination between institutes should be laid down already at the level of the Project Board.

The project is planned on three main results to be gained. For each result a thematic group, called Task Force (TF), has been formed for fulfilling the activities needed to meet the objectives:
TF1 for improving monitoring legislation and developing nation-wide water quality program,
TF2 for developing water indicators and indicators-based assessments, and
TF3 for developing water sampling and laboratory procedures and improving quality control and quality assurance procedures.

Task Forces will get their guidance and coordination from the Project Group. The Project Group members take part in the work of TFs. All lead positions to fulfill tasks and activities are at hands of SAEPF personnel. SYKE advisors provide experience on how the water quality monitoring work should be organized and what kind of developments should be taken into account from UNECE, EEA or Water Convention guidelines. The project will adjust its pace and issues to the institutional intake capacities of the partner organization and improving ongoing processes by strengthening them.

Both SAEPF and SYKE will nominate a project manager having the responsibility for reporting and accounting on behalf of SAEPF and SYKE, and to carry out exchange of administrative information to the extent needed to follow the ICI rules or other administrative procedures and accounting requirements. The experts and their responsibilities are presented in the following table.

Name	**Position /**	**Organisation**	**Area of responsibility within the Project**
Project Board			
Mr Toktoraliev, B.A.	Director	State Agency of Environmental Protection and Forestry of the Kyrgyz Republic (SAEPF)	Directions and guidance in adjusting the project activities into those of SAEPF
Mr. Rustamov, A.A.	Vice director	State Agency of Environmental Protection and Forestry of the Kyrgyz Republic (SAEPF)	Taking care of organizational issues within SAEPF to manage the participation into project activities
Mr Kasimov, O.T.	Director	Institute of Prophylaxis under the Kyrgyz Ministry of Health	Providing the connection to the health sector, because UNECE Protocol on Water and Health will be addressed to the certain extent..
Mr Isabaev, Z.S.	Director	Kyrgyz Hydro-meteorological service	Providing the connection to the sector of the Ministry of Emergences through functions and cooperation with Hydromet, whose task is to carry out ambient water quality monitoring and

			assessments of radiation situation.
Ms Salikmambetova, B.H.	Chief	SAEPF, Unit of international cooperation	Administrative and organizational issues on behalf of SAEPF
Mr Eloheimo, K.L.	Representative of SYKE	Finnish Environment Institute (SYKE), FinWater WEI program	Direction on behalf of FinWater WEI program
Project Group			
Mr Sadybekov, T.A.	Head of the Ecological laboratory	State Agency of Environmental Protection and Forestry of the Kyrgyz Republic (SAEPF)	CV, National project coordinator, secretary of the project board
Ms Janova, S.V.	Senior expert	Head of the department of ecological monitoring	Team leader of the TF1
Ms Barieva, A.Z.	Senior expert	Leading specialist within the department of ecological strategy and policy	Team leader of the TF2
Ms Sutskova, T.G.	Senior expert	Leading specialist in the water laboratory analytics	CV, Team leader of the TF3, organizing the work in lab and field. Chemist and biologist.
Mr Mäkelä, A. J.	Technical adviser and project manager on behalf of SYKE	SYKE, Water Center, Integrated River Basin Management.	CV, Capacity building expert on water quality monitoring, international reporting and water sampling.
Ms Katarina Björklöf	Technical advisor for chemical and microbiological analyses.	SYKE Reference Laboratory	CV, Capacity building within lab QA/QC development. Expert on personnel certification
Ms Kaija Korhonen	Technical advisor in inter-calibration	SYKE Reference Laboratory	CV, Expert on laboratory inter-calibration and QA/QC
Participants			
Ms Natalia Baidakova	International Reporting and expert on legislation addressing environmental monitoring	SAEPF, the head of the TF2, State of Environment reporting and updating Internet pages of the Agency. As well, a key person at the beginning in organizing the work of TF1.	Counterpart within State-of-Environment reporting, Indicators-based assessments, indicator compiling
Ms Tatjana Shmeleva	Chemist, quality control	SAEPF, quality control manager in the lab, inter-calibrations and upgrading quality manual for the ecological lab..	CV, Counterpart within QA/QC activities
Ms Ainash Sharshenova	Medic, water and health	Ministry of Health; Scientific and Production Centre for Preventive Medicine KR-Advisor for the TF1, TF2 and	Counterpart within adopting water and health assessment and measuring methods

		TF3.	
Ms Gulzat Zolzybekova	Chemist, biologist, field work and sampling	SAEPF, laboratory analyses, member of TF3	CV, Counterpart within preparing updated Standard Operational Procedures of chemical methods
SYKE Junior Expert	Field work and laboratory test procedures	SYKE, technical advisor for TF3	Advising in preparing Standard Operational Procedures.
Present gender ratio (M/F) 5/8			
to be con'd.,..			

9. Budget

The total sum of the budget between May 2011-Oct 2013 is approximately 500 000 euro including the costs of preparation in 2010-2011.

10. Other issues

Kyrgyz Republic[14]

The reorganization of the government structure is still ongoing after the April 7th 2010 revolution. After revolution there have been severe constraints in the state budget. However, the Kyrgyz counterpart has been an active participant in UNECE meetings and they have carried out information collection and country assessment preparation for the environment ministerial conference to be held in Kazakhstan in September 2011.

Water resources in Kyrgyzstan

The first UNECE Environmental Performance Review (EPR) in 1999 highlighted the difficult situation of Kyrgyzstan regarding the management of water resources, a complex issue with components both at national and regional levels. It recommended to the country to improve water monitoring, elaborate a water strategy and move step-by-step toward integrated water resource management. Little progress has been made in all these directions mostly due to lack of capacities.

Kyrgyzstan has made progress in implementing environmental impact assessment (EIA) and environmental permitting through a number of regulatory documents issued and scope of their application. Trans-boundary EIA is more complex than national EIA due its cross-border nature. In 2001 Kyrgyzstan ratified the UNECE *Convention on Environmental Impact Assessment in a Trans-boundary Context*.

The quality of water resources is still under serious threat due to pressures of past pollution and current economic activities. The tailings dams located at closed uranium mining and processing sites as well as the disposal of radioactive waste from the Soviet era present grave risks to environmental safety and human health in the region, mainly through pollution of surface waters. Ground-waters are also threatened by various anthropogenic activities, including agriculture, industry and transport, and protection rules are not implemented. As informed in the 2nd EPR Kyrgyzstan should take preventive actions and, if not able to afford the costs, seek a substantial part of the funding from international donors.

Used languages

[14] The Kyrgyz Republic is a land locked mountain country having the common border with China, Kazakhstan, Tajikistan and Uzbekistan. Almost 90% of the territory is above altitude of 1500m. By geology the are a is unstable; processes like earthquakes, landslides, floods and snow avalanches are common, annually about 150 emergencies take place meaning serious risk to man made constructions like industry installations, dams and waste dumping sites calling for environmental monitoring to uncover possible cracks and pathways of pollutants and then for targeted actions of management. More than 3900 river basins are prone to mudflows and floods. Annually, the seismic stations register about 3000 earthquakes and a few of them cause damage. The latest took place on Oct 5th 2008 and 74 persons died.

The official languages in Kyrgyzstan are Kyrgyz and Russian. Taking into account the level of skills in English language in the SAEPF, there is a need to take into account in particular the needs for interpretations and translations and to make appropriate budget reservations for that, because communication is the most important tool for carrying through the project having an aim at maximum impacts on capacity building.

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Appendices

Appendix 1: Logical Framework of the KGZ-Water project

Appendix 2: Time schedule