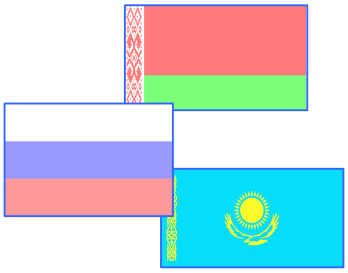
EECCA PROJECT



JOINT PROJECT
BY

Republic of Belarus
Republic of Kazakhstan and
Russian Federation

In cooperation with the Secretariat of
the UNECE Convention on Long-range Transboundary
Air Pollution

FACILITATING THE IMPLEMENTATION AND RATIFICATION OF THE PROTOCOLS OF THE CONVENTION ON LONG-RANGE TRANSBOUNDARY AIR POLLUTION IN EASTERN EUROPE, CAUCASUS AND CENTRAL ASIA

April 7, 2010

LRTAP
Long-range Transboundary Air Pollution

The proposal has been developed within the EECCA Project Preliminary step financed by the Russian Federation through the UNECE Technical Cooperation Fund.

The text has been prepared by the Scientific Research Institute for atmospheric air protection – SRI Atmosphere – St.Petersburg, the Russian Federation in cooperation with the UNECE CLRTAP Secretariat and the project partner countries, 2010.

1. Executive summary

PROJECT TITLE	Facilitating the implementation and ratification of the protocols of the Convention on Long-Range Transboundary Air Pollution (CLRTAP) in Eastern Europe, Caucasus and Central Asia (EECCA): a joint project from the Russian Federation, Republic of Belarus and Republic of Kazakhstan
DURATION	2 years (3rd quarter, 2010 – 2nd quarter, 2012)
LOCATION	Republic of Belarus, Republic of Kazakhstan, Russian Federation
COOPERATING ORGANIZATION	CLRTAP Secretariat, United Nations Economic Commission for Europe (UNECE)
NATIONAL COUNTERPARTS	The Ministry of Natural Resources and Environmental Protection of the Republic of Belarus; The Ministry of Environmental Protection of the Republic of Kazakhstan; The Ministry of Natural Resources and Environment of the Russian Federation
REQUIRED BUDGET	€ 1,000,000 Euro
PROJECT OBJECTIVE	The objective of the project is to facilitate the implementation the UNECE Convention on Long-Range Transboundary Air Pollution (CLRTAP) by partner countries to promote the application of air quality management approaches and practices developed within the Convention which shall result in ratification of the three most recent Protocols: the Protocol on Heavy Metals, the protocol on Persistent organic pollutants (POPs) and the Gothenburg Protocol. Facilitation of the work within the CLRTAP and promotion of sound air quality management approaches will be achieved through building up new and strengthening existing links between regional and international experts and expert networks aiming at individual and institutional experience exchange. With common challenges identified and review of lessons learned in the past, environmentally sound and cost-effective policy measures will be developed to meet the requirements of the CLRTAP and its protocols allowing for prospective ratification and implementation of their provisions by the partner countries.

2. Background

2.1. Introduction

This project is proposed by the Russian Federation jointly with the Republic of Belarus and the Republic of Kazakhstan. It takes place within the framework of the Revised Action Plan for the countries of Eastern Europe, Caucasus and Central Asia (EECCA) (ECE/EB.AIR/WG.5/2007/17) adopted in 2005 by the Executive Body of the UNECE Convention on Long-range Transboundary Air Pollution (CLRTAP) (ECE/EB.AIR/91). The Action Plan aims at mobilizing countries of EECCA in the work carried out under the Convention to combat air pollution and its adverse effects on human health and environment. The approach is to analyze and adjust the national practices concerning the protection of atmospheric air under the CLRTAP mechanisms with the ultimate objective to join the three most recent Convention Protocols: **the 1998 Protocol on Heavy Metals (HM Protocol), the 1998 Protocol on Persistent Organic Pollutants (POPs Protocol) and the 1999 Protocol to Abate Acidification, Eutrophication and Ground-level Ozone (Gothenburg Protocol)**.

Belarus, Kazakhstan and the Russian Federation stretch over vast territories of EECCA, and significantly contribute to the atmospheric pollution of the UNECE region. The promotion of the activities carried out by the countries participating in the project to combat air pollution and their prospective accession to the LRTAP Convention's Protocols would represent a significant milestone in the thirty-year history of the Convention. Moreover, formulating a unified regional approach toward protecting atmospheric air in countries of EECCA will stimulate a more comprehensive dialogue concerning the strategic development of the Convention.

The following sections present short outlines of the LRTAP Convention and its protocols followed by a description of the current situation in the partner countries and links to Convention's strategy on involvement of EECCA into the work underneath.

2.2. LRTAP Convention and its three latest Protocols

a) The 1979 Geneva Convention on Long-range Transboundary Air Pollution

The Convention on Long-range Transboundary Air Pollution is one of the most successful regional treaties aimed at air quality monitoring and management. Besides establishing the general principles of international cooperation for air pollution abatement, the Convention has also set up an institutional framework bringing together scientific research and policy. It has, over the years, served as a bridge between different political systems and as a factor of stability in years of political change. It has substantially contributed to the development of international environmental law and has created the essential framework for controlling and reducing the damage to human health and the environment caused by transboundary air pollution.

The Convention entered into force in 1983. In 2010, the Convention counts 51 Parties, including Belarus, Kazakhstan and the Russian Federation. It has been extended by eight specific protocols. Earlier Protocols (1985 on Sulphur, 1988 on Nitrogen Oxides, 1991 on Volatile Organic Compounds and 1994 on Sulphur) are out of the scope of the project since target years for obligations have already passed. Moreover, the 1984 Geneva Protocol on Long-term Financing of the Cooperative Programme for Monitoring and Evaluation of the

Long-range Transmission of Air Pollutants in Europe (EMEP) has been ratified by Belarus and the Russian Federation, Kazakhstan is considering accession to it in near future.

b) The Protocol on Heavy Metals (HM Protocol)

The Protocol – adopted on 24 June 1998 in Aarhus (Denmark), entered into force on 29 December 2003 – targets three particularly harmful heavy metals (HM): cadmium, lead and mercury. Parties to it are obliged to reduce their emissions for these three metals below their levels in 1990 (or an alternative year between 1985 and 1995). For existing stationary sources the target is eight years after entry into force (exemptions apply), as for countries with economies in transition the target is extended to 10 years after the date of entry into force.

The Protocol aims to cut emissions from main sources, such as industrial sectors, combustion processes and waste incineration; it also introduces measures to lower heavy metal emissions from products. Apart of that, it proposes stringent limit values for emissions from stationary sources and suggests best available techniques (BAT) for these sources.

c) The Protocol on Persistent Organic Pollutants (POPs Protocol)

The Protocol – adopted on 24 June 1998 in Aarhus (Denmark), entered into force on 23 October 2003 – focuses on a list of 16 substances that have been singled out according to agreed risk criteria. The list includes eleven pesticides, two industrial chemicals and three by-products/contaminants. The Parties are to reduce their emissions of dioxins, furans, PAHs and HCB below their levels in 1990 (or an alternative year between 1985 and 1995) and to follow the specific limit values set up for the incineration of municipal, hazardous and medical waste. The ultimate objective is to eliminate any discharges, emissions and losses of POPs.

d) The Protocol to Abate Acidification, Eutrophication and Ground-level Ozone (Gothenburg Protocol)

The Protocol – adopted on 30 November 1999 in Gothenburg (Sweden), entered into force on 17 May 2005 – sets individually agreed emission ceilings for 2010 for four pollutants: sulphur, nitrogen oxides (NOx), non-methane volatile organic compounds (NMVOCs) and ammonia (Annex II). Parties whose emissions have a more severe environmental or health impact and whose emissions are relatively cheap to reduce will have to make the biggest cuts.

The Protocol is multi-pollutant and multi-effect oriented; it sets stringent limit values for specific emission sources and requires BATs to be implemented to reduce emissions. Guidance documents adopted together with the Protocol provide a wide range of abatement techniques and economic instruments for the reduction of emissions in the relevant sectors, including transport.

A specific feature of the Gothenburg Protocol is a provision for large states with the land area greater than 2 million sq. kms (as it is in cases of Kazakhstan and the Russian Federation) to have their obligations applied to particularly designated Pollutant Emissions Management Areas (PEMAs) only. Kazakhstan has not utilized this tool up to date as no respective emission ceilings are set and the PEMA is not designated. As for the Russian Federation the PEMA comprises Republic of Karelia, Kaliningrad, Leningrad, Murmansk, Novgorod and Pskov Regions as well as the City of Saint-Petersburg.

2.3. Current situation in the partner countries

Belarus

Belarus ratified the CLRTAP on 13 June 1980. Currently it is a Party to the following Protocols: the 1984 EMEP, the 1985 on Sulphur, the 1988 on Nitrogen Oxides.

Historically Belarus, located between the Russian Federation, Poland and the Ukraine, has experienced effects of transboundary air pollution. At the same time, the country itself accommodates significant industrial sources of air pollution such as oil refining, energy generation, mechanical industry, construction materials industry and, to a large extent, agriculture. Moreover, being a transit country, Belarus is substantially affected by road and railway transport of goods between Central and Eastern Europe, primarily the Russian Federation, as well as by a growing domestic vehicle fleet.

In terms of main pollutants such as SOx, NOx, CO, NMVOC and particulate matter (PM), Belarus has shown trends similar to other ex-Soviet Union countries with pollution significantly declining in 1990s and reversing trends in early 2000s. According to the latest data (as of 2008), the net national emissions were approximately 1600 thousand tons with 75 per cent being attributed to mobile sources.

Belarus fulfils reporting obligations, under the respective instruments it has ratified, on emissions of basic pollutants, HMs and POPs. The reporting is based on data inventories carried out on yearly basis. Air quality is assessed through an extensive national monitoring system which is comprised of 62 monitoring stations located mainly in cities and towns, one background monitoring station “Berezinski reserve” and one transboundary air pollution migration station “Vysokoe” both covering major EMEP requirements for the second and the first level monitoring stations respectively (with some exceptions).

Concerning the HMs and POPs Protocols as well as the Gothenburg Protocol, additional measures for source identification, monitoring and reporting of pollutant releases along with development and application of effective abatement techniques are still required. Meeting these specific needs is the aim of the current project. It must be noted though that the scale of data and knowledge gaps related to the abovementioned protocols differs. In particular, since Belarus joined the Stockholm Convention on Persistent Organic Pollutants in 2003, significant amount of work has been carried out already with development of detailed inventories of POPs in use and in storage, but most importantly, a “National Action Plan on meeting the obligations under the Stockholm Convention on POPs by the Republic of Belarus for 2011-2015 and till 2028” has been drafted and is currently under the final revision prior to the adoption. It aims, inter alia, at policy and technology changes, introduction of POPs release monitoring, handling and disposal of POPs and other measures.

The situation with HMs, PM, NMVOCs and ammonia releases is more challenging and still requires assessment and further inventory development with application of modern techniques. There is also lack of understanding in terms of application of proper policy regulations related to these substances.

Overall, the monitoring system still requires major development in terms of HMs, POPs and PM emissions. National air quality policies and strategies are being updated to meet European criteria, yet, expert and technical assistance is required for changes to happen in the foreseeable future.

Kazakhstan

Kazakhstan ratified the CLRTAP on 11 January 2001. However, it has not acceded to any of the Protocols thus far.

Kazakhstan is an industrialized country with major mining, converting, refining and chemical industries accompanied by power generation (coal-fired power plants are accountable for 78% for all energy generated). Out of some 2700 thousand tons of air pollutant releases in 2008 about 15% is attributed to mining, 29% to power generation and distribution and 56% to other main industrial sectors. The issue of air pollution from road transport in major cities is acute with its contribution to the overall urban air pollution estimated at some 90%.

As Kazakhstan is not a Party to any of the CLRTAP Protocols up to date, it has no reporting obligations. Moreover, the overall situation with air pollutant release monitoring is the following: only four major pollutants are observed – SOx, NOx, CO and PM (net quantity). There is no monitoring of NMVOCs, POPs, HMs, ground-level ozone and PM10 and PM2.5 in place. 43 meteorological monitoring stations perform chemical analysis of atmospheric depositions (sulphates, chlorides, nitrates, ammonia, potassium, sodium, magnesium, HMs such as lead, copper, cadmium and mercury). There is lack of data on air pollution from mobile sources neither in major cities nor around the country, only expert estimates on benzapyrene emissions are partly available.

In 2007, Kazakhstan became a Party to the UNEP Stockholm Convention on Persistent Organic Pollutants. Subsequently, a National Action Plan and related strategies are being developed.

The first attempt to encourage Kazakhstan to actively participate in activities under the CLRTAP was the UNECE/ UNDA project "Capacity Building for Air Quality Management and the Application of Clean Coal Combustion Technologies in Central Asia" (CAPACT).

The CAPACT project resulted in the following major outcomes:

- The 2005 National Concept of the Republic of Kazakhstan for air quality management and for implementing selected CLRTAP protocols – which was presented to the Government. These strategic directions served as the basis for the National Programme for air quality management;
- The 2007 National Programme and implementation plan to Improve Air Quality Management and Enforce Selected Protocols to the Convention on Long-range Transboundary Air Pollution in Kazakhstan between 2008 and 2010 – which was developed and integrated into the national policy in the field of environment protection.

One EMEP monitoring station "Borovoe" has been established within the CAPACT framework in collaboration with UN ECE and the Norwegian Institute for Air Research (NILU). Since 2007 it has been working within the EMEP Programme.

Currently, accession to the EMEP Protocol is under consideration by the national Government as the three other Protocols are considered too complex to ratify before additional studies are carried out, especially, on costs and benefits of their implementation. In particular, the National Programme "Environmental protection in the Republic of Kazakhstan for 2008-2010" outlines three research topics related to the CLRTAP and financed from the national budget: emission inventory consistency analysis on the basis of the EMEP/EEA Emission Inventory Guidebook; development of emission reporting in accordance with the UNECE

requirements with refining of national emission factors and the long-range transboundary air pollutant transport modeling.

The Russian Federation

The Russian Federation ratified the CLRTAP on 22 May 1980. Currently it is a Party to the following Protocols: the 1984 EMEP, the 1985 on Sulphur, the 1988 on Nitrogen Oxides.

Being the biggest country of the UN ECE region, the Russian Federation is located in both Eastern Europe and Northern Asia. Centers of economic activities and urbanization lie within the European part of the country accommodating about 79% of the population. Due to this and other reasons during the development of the CLRTAP framework, it was decided that the scope of EMEP monitoring programme in the East would be limited by European territory of the former Soviet Union (USSR). Thus, nowadays, the Russian Federation as the legal successor of the USSR reports its emissions and utilizes related emission control strategies and policies under the CLRTAP within its European territory only.

The European territory of the Russian Federation is accountable for some 52% of all air pollutant releases within the country which equal about 20 000 thousand tons in 2008 from both stationary and mobile sources. Similar to the two other partner countries, the major increase in air pollution is caused by the ever growing car fleet which currently contributes about 60% to the overall air emissions.

Monitoring and reporting practices carried out by the Russian Federation under the CLRTAP are focused on the main pollutants such as SOx, NOx, CO, NMVOCs and particulate matter (net quantity) and are mostly consistent with the reporting requirements. Voluntary reporting of the basic heavy metals release was carried out up to 2007 when inconsistencies leading to underestimations of related compounds were discovered. Since then the reporting on heavy metals has ceased.

Air quality monitoring is carried out in 120 cities and towns within the European territory of the Russian Federation based on the monitoring data of around 300 monitoring stations of the RosHydroMet network. There are also four EMEP stations in use.

In terms of the three latest CLRTAP Protocols, the Russian Federation still needs to undertake a number of research, policy and technical actions in order to be able to accede to the Protocols. In particular, HM and POPs emission inventories are yet to be developed along with the monitoring of major related compounds to be established. Moreover, methods for estimating air pollutant releases require updating in terms of disaggregation of net PM emissions into PM10 and PM2.5 species.

Due to economic and political restructuring which was taking place in 1990s and early 2000s, issues of transboundary air pollution were not a priority in the Russian Federation. However, since 2007-2008 a more active participation in the work under the Convention has been initiated. Moreover, the development of a new national law “On protection of ambient air” with specific provisions on transboundary air pollution has been initiated by the Federation Council of the Russian Federation – the upper chamber of the National Parliament – in 2009. In addition, a Governmental Order “On measures aimed at environmental protection in terms of ecological and nuclear safety in the Russian Federation” no. 1166-p containing specific provisions on cooperation with the UN ECE under the CLRTAP and its protocols has been issued on 18 August 2009.

Intermediate conclusions

The project partners share common problems related to their socio-economic profiles: alike major industrial sources of air pollution and emission control – or lack of – techniques utilized, urbanization with consequent increase in car fleet and subsequent elevated air emission levels, similar command and control approaches to air quality management, lack of heavy metals and POPs monitoring and reporting, difficulties with PM10 and PM2.5 monitoring and reporting etc.

At the same time, gradual integration into the international environment-concerned processes has resulted in the development of more relevant monitoring and reporting practices, the application of more stringent limit values and the introduction of up-to-date technical standards, including the phasing out of leaded petrol and setting up EURO-2 and EURO-3 emissions standards for mobile vehicles.

Moreover, on their respective sides, partners have already gained knowledge and built up practical experience both in application of technical measures and in air quality and pollution abatement policy development. Thus, a mutual exchange of experience between partners and international expert support will facilitate the development and introduction of better practices and approaches under the CLRTAP and its Protocols on the national level aimed at solving environment and health related problems caused by air pollution.

2.4. Relationship to the Action Plan for the countries of Eastern Europe, Caucasus and Central Asia (EECCA)

Implementation of the project will be in line with the revised Action Plan for the countries of Eastern Europe, Caucasus and Central Asia (EECCA) in the work of the Convention (ECE/EB.AIR/WG.5/2007/17), in particular, addressing item 2, sub-items (a)-(e):

a. "Use the EMEP Protocol as an important first step for all countries for achieving major benefits from cooperation with the Convention's programme centres and other Parties";
b. "Develop a ratification process with recommended technical annexes or flexible time schedules for compliance; as relaxing the provisions of existing protocols would require amendments, this might be best addressed during the revision of the protocols";
c. "Support the countries of EECCA at various stages of the ratification processes";
d. "Using the synergies with the ratification of the Stockholm Convention, help countries ratify the Protocol on POPs";
e. "Analyse the option of applying the pollution emissions management area (PEMA) of the 1999 Gothenburg Protocol".

3. Objective and expected accomplishments

3.1. Objective

The overall objective of the project is to facilitate the work of Belarus, Kazakhstan and the Russian Federation aimed at implementation of the CLRTAP and ratification of its three latest Protocols in order to promote better air quality management practices and decrease the adverse effects of air pollution, in particular on human health and on ecosystems. Implementation of the project within the proposed timeframe will, moreover, enable

comprehensive participation of the partner countries in the ongoing review process of the CLRTAP Protocols.

Elaboration and Implementation phases of the project aim at building up the capacity of partner countries required for implementation of related provisions, including the development of legal, regulatory and institutional framework, and accession to the CLRTAP Protocols.

3.2. Expected accomplishments

The implementation of the project will result is the following expected accomplishments:

a. **Raised awareness** on both policymaker and expert levels in the partner countries on development and implementation of air quality management mechanisms and benefits from regional and international cooperation under the CLRTAP aimed at reduction of adverse effects on human health and environment caused by air pollution;

b. **Advanced** of air quality management and increased capacity of technical and policy experts in the partner countries.

3.3. Expected outputs

The implementation of the project will result is the following expected outputs:

a. Up to date **National Strategies (concepts) for air quality management** within the CLRTAP and its three latest Protocols' framework for all partner countries, **Rationale documentation** for implementation of the three selected CLRTAP Protocols as the basis for the National Programmes and respective Implementation Plans to be developed upon accession to the Protocols;

b. The CLRTAP framework-based **review of the common challenges, improvements required and cost-benefit issues** in the field of national air quality management in Belarus, Kazakhstan and the Russian Federation;

c. **Model national air emission inventories** for focal national sectors (as determined by each partner country) in accordance with requirements of the three selected Protocols and a registry of cost-effective regionally available air pollution abatement techniques;

d. Establishment of a **regional expert network** comprising scientists and policy makers of the partner countries and international community, development of a **publicly accessible website** for use by all project participants as an open opinion and experience exchange platform and for dissemination of project outputs.

4. Elaboration and implementation phases

In order to achieve the expected accomplishments the project is split in Elaboration and Implementation phases. The **Elaboration phase** comprises four stages which are focused on development of the technical and policy framework required for potential accession to the CLRTAP Protocols by the partner countries. The **Implementation phase** accommodates steps following the successful completion of the Elaboration phase and is mainly focused on

promoting developed tools and procedures at a higher governmental level aiming at implementation and ratification of the three selected Protocols.

4.1. Elaboration phase

The Elaboration phase comprises the following stages:

a) Development of National Strategies (concepts) and the Rationale documentation

National Strategies (or concepts, subject to the decision of each partner country) **for air quality management** within the CLRTAP framework will be developed primarily for Belarus and the Russian Federation with the reference to the work carried out for Kazakhstan's Concept within the CAPACT Project. Major requirements and legislative measures for meeting obligations under the Protocols will be defined. The Concept of Kazakhstan will also be reviewed and updated if deemed necessary.

National Concepts will serve as guidelines for development of the **Rationale documentation on implementation of the three selected Protocols** by Belarus and the Russian Federation which will become the basis for the National Programmes and Implementation Plans upon ratification of the Protocols. At this sub-stage the National Programme for Kazakhstan for all three Protocols as well as the "National Action Plan on meeting the obligations under the Stockholm Convention on POPs by the Republic of Belarus for 2011-2015 and till 2028" should be analyzed for possible synergies to become the common framework for the Programme of the Russian Federation.

The Rationale documentation will focus on technical issues related to monitoring, emission inventory development and compliance to the protocols obligations and policy gaps to be filled in for effective implementation of the protocols as well as on the analysis of costs and benefits of accession to the CLRTAP Protocols.

Three workshops for national experts will be organized (in accordance with the timeline of the Elaboration phase, Tab. 1) to establish the common theoretical and technical framework for development of the National Concepts and the Rationale documentation as well as for discussion of the results of this sub-stage. These workshops will be carried out within the Project start-up seminar, the First and the Second intermediate project seminars.

b) Establishment of a regional expert network and dissemination of information

Regional cooperation on air quality management is the key factor of the project as air pollution problems of the partner countries have similar roots. **The focal expert group** will comprise scientists and policy makers of competent national research and public institutions as well as external international experts. This will allow experience exchange and regional expertise capacity building. Work of the expert group will be done via seminars and workshops on sub-stage topics as well as by routine communication via a **publicly accessible website**

The issues of proper emissions assessment and reporting, questions of air quality monitoring and modeling, effectiveness of policy and technical measures to abate pollution are complex and often carry high level of uncertainties. Therefore, it is essential to establish and maintain an effective information exchange system based on straightforward and transparent methodology clear for all stakeholders. Collaboration between leading national scientific

institutions as the Kazakh Ecology and Climate Research Institute (KazNIIek), the Scientific Research Institute for Atmospheric Air Protection (SRI Atmosphere), the Russian Federation, and the Institute for natural resources use of the Belarus Academy of Sciences, should become the regional pillar of the expert group. Moreover, the project will seek assistance from all relevant Working groups and Task Forces under the CLRTAP.

Coordination workshop for the expert network will be organized within the Project start-up seminar. The First and the Second intermediate project seminars (in accordance with the timeline of the Elaboration phase, Tab. 1) will further facilitate cooperation and capacity building.

c) Development of the Model national air emission inventories

Air emission inventories are essential for comprehensive understanding of the scale of problems and areas requiring improvements. Moreover, establishment of a proper system of emission inventory development on both the national and the regional levels will allow the partner countries as well as the CLRTAP as a whole achieve a higher level of transboundary air pollution modeling application and create more comprehensive pollution abatement strategies.

Separate case-studies previously carried out by the partner countries on HMs, POPs, PM and precursors of tropospheric ozone releases will be brought together for comprehensive analysis. The results of it are expected to show the information and methodology gaps and provide a basis for development of the advanced pollution inventories.

Focal national industrial sectors will be determined by each partner country on the basis of the abovementioned case studies for actual emission measurements using the up to date tools and methodologies. The special inventory work plans will be developed for each partner country. In particular, the plans will comprise the focal sources short-listed and pollutants to be measured, internationally recognized methodologies for sampling and analyzing of air pollutant releases, administrative and related procedures (equipment procurement, logistics etc.).

Implementation of this sub-stage will require special training for emission sampling at various sources with the use of specific modern equipment. There will be three training and experience exchange sessions organized within the Project start-up, the First and the Second intermediate seminars (in accordance with the timeline of the Elaboration phase, Tab. 1) with participation of regional and international experts.

Successful completion of this sub-stage will substantially contribute to the increased accuracy of air pollutant transport and deposition modeling and ensure clear scientifically proven basis for decision-makers on perspectives of accession to the CLRTAP Protocols, which directly relates it to the Implementation phase. Additionally, the model inventories will allow the more comprehensive development of the nation-wide air pollutant registries.

d) Development of the review on the common challenges, improvements required and cost-benefit issues

Raising the overall and, particularly, political awareness on the air quality problems and related management gaps, on costs and benefits, on ways for resolving these issues under the CLRTAP is the ultimate goal of the project, granted, that it is effective enough to initiate action. To reach this goal the CLRTAP framework-related **review of the common**

challenges, improvements required and cost-benefit issues in the field of national air quality management in Belarus, Kazakhstan and the Russian Federation will be developed. Benefits in terms of reduced effects of air pollution on human health, environment and infrastructure will be outlined and cross-analyzed against corresponding direct costs of pollution abatement and indirect costs for policy and regulation improvements.

In order to make this tool as effective and powerful as possible, two seminars for national and international technical and policy experts, as well as policy-makers from the partner countries will be arranged within the Project start-up seminar, the First and the Second intermediate project seminars (in accordance with the timeline of the Elaboration phase, Tab. 1).

Expected outputs (E.O.) and progress indicators of the phase

The Elaboration phase of the project is expected to have the following outputs serving as progress indicators:

i. National Strategies (concepts) for air quality management within the CLRTAP framework developed for Belarus and the Russian Federation as well as the updated National Concept for Kazakhstan;

ii. Rationale documentation for implementation of the three selected CLRTAP Protocols developed for Belarus and the Russian Federation as the basis for the National Programmes and respective Implementation Plans upon ratification of the Protocols; and the updated National Programme and Implementation Plan for Kazakhstan;

iii. Regional focal expert group of 15 to 20 experts from the partner countries and bodies of the CLRTAP;

iv. Online Internet platform for information exchange and dissemination of the project outputs;

v. Model air emission inventories for the indicative sectors of the partner countries based on estimations and actual measurements;

vi. Registry of cost-effective regionally available abatement techniques;

vii. Comprehensive review of common challenges, improvements required and cost-benefit issues in the field of national air quality management in Belarus, Kazakhstan and the Russian Federation as a tool for promotion of action under the CLRTAP and beyond;

viii. 15-20 regional experts trained on various technical and policy issues related to the CLRTAP framework and capable of developing the National Programmes and Implementation Plan as well as emission inventory establishment and maintenance.

Expected timeline and tentative budget of the phase

The Elaboration phase is clearly the basis for further actions towards the air quality management improvements and the more active participation the partner countries in the CLRTAP-related work and, thus, requires substantial time and resources to be effectively and successfully implemented. Table 1 and Table 2 below present the provisional timeline and the tentative consolidated budget for the Elaboration phase execution respectively.

Table 1. Timeline of the Elaboration phase with Expected outputs

Stage/ E.O. / Time	*a) Development of National Strategies (concepts) and Rationale documentation*		*b) Establishment of a regional expert network and dissemination of information*		*c) Development of Model national air emission inventories*		*d) Development of the review on the common challenges, improvements required and cost-benefit issues*
	E.O. I	*E.O.II*	*E.O.III*	*E.O.IV*	*E.O.V*	*E.O.VI*	*E.O.VII*
	E.O.VIII						
3rd quarter, 2010	X		X	X	X		X
	Start-up WS/S						
4th quarter, 2010	X		X	X LAUNCH	X		X
1st quarter, 2011	X	X	X	X	X	X	X
2nd quarter, 2011	X	X	X	X	X	X	X
	First intermediate WS/S						
3rd quarter, 2011	X	X	X	X	X	X	X
4th quarter, 2011	X	X	X	X	X	X	X
1st quarter, 2012	X	X	X	X	X	X	X
2nd quarter, 2012		X	X	X	X	X	X
	Second intermediate WS/S						

Notes: E.O. – expected outputs of the phase, WS/S – workshop/seminar.

Table 2. Tentative consolidated budget of the Elaboration phase

No.	Item	TOTAL (€)
1.	*(a) Development of National Strategies (concepts) and Rationale documentation*	263 817
2.	*(b) Establishment of a regional expert network and dissemination of information*	19 760
3.	*(c) Development of Model national air emission inventories*	391 544
4.	*(d) Development of the review on the common challenges, improvements required and cost- benefit issues*	72 020
	PHASE TOTAL	***747 141***
	(in US dollars, the UN exchange rate as of April 1, 2010, 1 USD=0,743 EUR)	1 004 905

Note: Please, see the breakdown of the budget in the Annex.

The development of the respective outputs – the documentation packages for the partner countries – will ensure the comprehensive and potentially successful completion of the Implementation phase described in the following section.

4.2. Implementation phase

This phase will build on the results of the Elaboration phase and will directly involve official legislative and administration work to be carried out by the related ministries and agencies of the respective partner countries in accordance with the national procedures. This phase is focused on the awareness raising activities and on providing guidance to the national authorities on implementation of the Elaboration phase results.

The Implementation phase comprises the following stages:

(a) Awareness raising at the level of the national government officials

National awareness raising seminars will be conducted to present the results of the Elaboration phase and initiate the focused discussion at each of the partner countries targeting the middle and higher-level decision- and policy makers at the related governmental bodies. Apart from the executive summaries of the National Implementation Programmes and Plans,

the review of common challenges, costs and benefits of the CLRTAP Protocols will be presented and thoroughly discussed in order to raise the level of understanding of air quality management issues and its importance for the overall development of the respective nations.

The preliminary feedback received from the experts of the related ministries and agencies will be analyzed and structured into the sets of technical recommendations annexed to the National Implementation Programmes and Plans documentation packages.

(b) Review of the documentation packages by related national governmental bodies

Circulation of the document packages (Strategies and Rationale) with the preliminary comments and proposals will occur between relevant governmental bodies – ministries and agencies – at each of the partner countries for their approval of the proposed measures, additional amendments to national legal acts and other actions in accordance with national procedures.

(c) Finalizing the enhanced legal framework

Based on the information received at the Stage (a) and the Stage (b) the national Ministries responsible for environmental protection in the partner countries will complete the policy framework enhancement (in accordance with the national procedures).

(d) Decisions on the National Strategies (concepts) and Rationale by the respective national Governments

The documentation packages with approvals of the related governmental bodies and proposed amendments to the respective national legal acts will be submitted to the appointed governmental bodies of the partner countries for consideration.

(e) Ratification of the CLRTAP Protocols

Adopted Rationale incorporated into the national legal framework will serve as the basis for ratification of the CLRTAP Protocols and for the National programmes and Implementation plans development.

Expected outputs (E.O.) and progress indicators of the phase

The Implementation phase of the project is expected to have the following outputs serving as progress indicators:

i) Three awareness raising seminars carried out on the national and regional air quality issues and related approaches under the CLRTAP at the middle and higher governmental levels in the partner countries;
ii) Consolidated position of the respective national Governmental bodies – Ministries and Agencies – on the Implementation plans aimed at the ratification of the CLRTAP Protocols reached and the required documentation submitted to the national Governments;
iii) CLRTAP Protocols ratified by the partner countries.

Expected timeline and tentative budget of the phase

The Implementation phase is the final step of the project aimed at positive changes of the air quality policies and management in the partner countries, which, in turn, should result in the establishment of compliance with and ratification of the CLRTAP Protocols. Taking into account specific procedural issues unique at each of the partner countries the overall timeline of the phase is rather tentative with the Stage (a) only embodied in the project framework. Albeit, the completion of this phase is expected in the vicinity of 2 years following the successful implementation of the Elaboration phase.

Table 3 and Table 4 below present the provisional timeline and the tentative consolidated budget for the Implementation phase execution respectively.

Table 3. Tentative timeline of the Implementation phase with Expected outputs

Stage/ E.O. / **Time**	*(a) Awareness raising seminars for national government officials*	*(b) Review of the documentation packages by related national governmental bodies*	*(c) Finalizing the enhanced legal framework*	*(d)Decisions on by the respective national Governments*	*(e) Ratification of the CLRTAP Protocols*
	E.O. I	*E.O. II*		*E.O. III*	
3rd quarter, 2012	X	X	X	X	
4th quarter, 2012		X	X	X	X

Notes: E.O. – expected outputs of the phase

Table 4. Tentative budget of the Implementation phase (awareness raising only)

No.	**Item**	**Per unit (€)**	**TOTAL (€)**
1.	*(a) Awareness raising at the level of the national government officials**		
	National awareness raising seminars for middle- and higher level officials:		
	– Belarus		14 000
	– Kazakhstan		22 000
	– the Russian Federation		16 000
		PHASE TOTAL	***52 000***
	(in US dollars, the UN exchange rate as of April 1, 2010, 1 USD=0,743 EUR)		69 940

* other aspects of the Implementation phase will be funded internally

Overall expected result of the project

The overall outcome of the successfully implemented project will be the raised capacity of the partner countries required for effective implementation of the air pollution abatement mechanisms with related costs and benefits accounted for under the CLRTAP Protocols and ratification of the Protocols by the partner countries. Moreover, improved understanding of environmental and economic feasibility of measures under the Protocols aimed at better air quality will allow Belarus, Kazakhstan and the Russian Federation implement the former and take an active part in the cooperation within the CLRTAP.

ANNEX

Detailed budget of the project

No.	Item	Per unit (€)	TOTAL (€)
	ELABORATION PHASE		
1.	*(a) Development of National Strategies (concepts) and Rationale documentation*		
	– The National Strategies (NS) on air quality management: for Belarus		28 000
	for the Russian Federation		33 000
	revision of the existing NS for Kazakhstan		18 100
	– The Rationale documentation (RD):		
	for implementation of all three CLRTAP Protocols in the Russian Federation		46 100
	for implementation of all three CLRTAP Protocols in Belarus		42 100
	revision of the existing National Programme and Implementation Plan in Kazakhstan		15 100
	First expert group workshop on development of NSs and RD (within the Project start-up seminar)		14 140
	Second workshop/seminar on the intermediate results of the Stage A (within the First intermediate project seminar)		17 140
	Third seminar on the final results of the Stage A (within the Second intermediate project seminar)		33 140
	Russian-English Translation of NSs, RD and reference documents, ca. 1000 pages	17	17 000
	Stage A sub-total		***263 817***
	*(in US dollars, the UN exchange rate as of April 1, 2010, 1USD=0,743EUR)**		354 834*
2.	*(b) Establishment of a regional expert network and dissemination of information*		
	Coordinating seminar (within the Project start-up seminar)		10 380
	Online Internet platform for information exchange and dissemination of the project outputs (development and maintenance)		9 380
	Stage B sub-total		***19 760***
	*(in US dollars, the UN exchange rate as of April 1, 2010, 1USD=0,743EUR)**		26 577*
3.	*(c) Development of Model national air emission inventories*		
	Model air emission inventory for Belarus		82 206
	Model air emission inventory for Kazakhstan		97 206
	Model air emission inventory for the Russian Federation		107 206
	Register of cost-effective regionally available abatement techniques		47 206
	First workshop on common methodologies of emission inventory development (within the Project start-up seminar)		16 206
	Second workshop on the intermediate results and obstacles (within the First intermediate project seminar)		18 206
	Third workshop/seminar on the final results of the Stage C: discussion of national inventories and the abatement technique registry (within the First intermediate project seminar)		18 206
	Russian-English Translation of the national inventories and the abatement technique registry ca. 300 pages	17	5 100
	Stage C sub-total		***391 544***
	*(in US dollars, the UN exchange rate as of April 1, 2010, 1USD=0,743EUR)**		526 627*
4.	*(d) Development of the review on the common challenges, improvements required and cost- benefit issues*		
	The review document on the common challenges, improvements required and cost- benefit issues		40 923
	First workshop on common methodologies (within the Project start-up seminar)		10 923
	Second workshop on the results of Stage D: discussion of the review document (within the First intermediate project seminar)		15 923

No.	Item	Per unit (€)	TOTAL (€)
	Russian-English Translation of the review and reference documents, ca. 200 pages`	17	4 250
	Stage C sub-total		***72 020***
	*(in US dollars, the UN exchange rate as of April 1, 2010, 1USD=0,743EUR)**		96 867*
	PHASE TOTAL		***747 141***
	*(in US dollars, the UN exchange rate as of April 1, 2010, 1USD=0,743EUR)**		1 004 905*
	IMPLEMENTATION PHASE		
5.	*(a) Awareness raising at the level of the national government officials*		
	National awareness raising seminars for middle- and higher level officials:		
	– Belarus		14 000
	– Kazakhstan		22 000
	– the Russian Federation		16 000
	PHASE TOTAL		***52 000***
	*(in US dollars, the UN exchange rate as of April 1, 2010, 1USD=0,743EUR)**		69 940*
6.	**Contingency**	2%	15 983
7.	**Standard UN fee**	13%	103 888
8.	**Secretariat**		74 300
9.	**Assessment of Project and Outputs**		6 687
	GRAND TOTAL		**1 000 000**
	*(in US dollars, the UN exchange rate as of April 1, 2010, 1USD=0,743EUR)**		1 345 000*

Note: respective budget values are estimated on the basis of national practices for environmental policy and regulation development