STANDARD SUMMARY PROJECT FICHE

1. Basic Information

1.1 Désirée Number: CZ01.06.01

1.2 Title: Instrumentation for the monitoring of air pollutants covered by Daughter Directives 99/30/EC and 2000/69/EC to the 96/62/EC Directive.

1.3 Sector: Environment

1.4 Location: Czech Republic

2. Objectives

2.1 Overall Objective

Ability to take on the obligations of membership of EU in the field of Air Quality Sector.

2.2 Project Purpose

- The project assists in the implementation of the Framework Council Directive 96/62/EC on Ambient Air Quality Assessment and Management and Daughter Directives 99/30/EC and 2000/69/EC establishing a framework for Community action in the field of ambient air quality management with the ultimate aim of ensuring full compliance with these Directives and other EC legislation concerning ambient air quality. The regular ambient air quality monitoring network must be fully compatible with requirements laid down by Framework Directive and Daughter Directives as to principal components to be measured and assessment (measuring and modelling) of techniques to be used.

- The implementation of the project is a logical continuation of the Phare CZ 2000-05-03 “Institutions for Permitting and Monitoring in the Air Quality Sector” project which is aimed to provide: specification of the responsible persons and institution in order to fulfil the implementation of Directives 96/62/EC, 99/30/EC and 2000/69/EC; evaluation of the air quality from the standpoint of pollution compared with the set limit values; development of means of measurement and other methods of evaluation (methods, instruments, measuring network, laboratories); establishing and maintenance of the quality and control of measurements, including internal provision, analysis of evaluation methods, co-ordination of control of establishing and maintenance of quality assurance programs according to EU rules; information for public.

2.3 Accession Partnership and NPAA Priority

The Czech Republic is currently elaborating on 1st update of the implementation plans for all the Directives in the acquis communautaire including these in the ambient air quality sector. The basic directives in air quality sector the Framework Council Directive 96/62/EC on Ambient Air Quality Assessment and Management, Daughter Directives 99/30/EC and 2000/69/EC relating to limit values for sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter and
lead in ambient air are implemented in a newly prepared Czech legislation. The full-wording draft of the Clean Air Act and subsidiary legislation has been already prepared and is being submitted to the government for its approval prior to submitting to the Parliament (April 2001).

2.4 Contribution to National Development Plan


3. Description

3.1 Background and justification

The project is undertaken to develop the ambient air quality monitoring network over the territory of the Czech Republic able to comply with the requirements set by 96/62/EC Framework Directive and Daughter Directives 99/30/EC and 2000/69/EC.

3.2 Linked activities

Phare projects:
  The principal outputs of the project are economic impacts of the implementation of EC legislation in the air quality field.
  The principal outputs of the project will be description and in particular establishment of all relevant institutions, specification of their individual responsibilities and how they will interact to ensure compliance with the EC legislation in the air quality area and a partial equipment for air quality monitoring: PM 10 and PM 2,5 Analysers, Sampling PAH devices. Procured material is defined complementary and extending the investment component of the project CZ 2000-05-03.

3.3 Results

The project will produce a nation-wide ambient air quality monitoring network that will ensure measurements and results required by the Framework Directive 96/62/EC and Daughter Directives 99/30/EC and 2000/69/EC.
To be specific:

- The ambient air pollutants set up by the Framework Directive 96/62/EC and covered in detail as to their levels by Daughter Directives 99/30/EC and 2000/69/EC will be monitored;
- The limit values specified will be introduced and their excess reported to EC;
- The requirements specifying the number of measuring stations, their types, and microsetting will be met;
- The methods for ambient air quality sampling and analytical methods required will be introduced;
- The requirements on information of public will be fulfilled;
- The reporting obligations to EC will be assured.

3.4 Activities

All activities envisaged will be based on fulfilment of requirements of the Directive 96/62/EC and Daughter Directives 99/30/EC and 2000/69/EC:

- Instrumentation for measurement and analyses of sulphur dioxide, nitrogen dioxide and nitrogen oxides, SPM, PM-10, ozone, lead, benzene, carbon monoxide, heavy metals and organic compounds in the air will be installed.
- Establishment of air pollution measuring network for sulphur dioxide, nitrogen oxides, dust, ozone, lead, benzene and carbon monoxide fully compatible with requirements laid down by Framework and Daughter Directives.
- After introducing instruments into operation the air pollution monitoring network will be fully operational according to Framework and Daughter Directives.

4. Institutional Framework

The Ministry of the Environment is the responsible body for overall harmonization and implementation of environmental legislation. The currently prepared draft of the Clear Air Act maintain the responsibility of the ministry as the supreme permitting body in the Czech Republic.

The organization technically responsible for the project implementation: Czech Hydrometeorological Institute (CHMI) is established by Ministry of the Environment of the Czech Republic (MoE). The CHMI is a central state institute of the Czech Republic for the fields of air quality, hydrology, water quality, climatology and meteorology providing objective expert services mainly for state administration bodies. The CHMI is responsible for air quality monitoring on the territory of the Czech Republic and for operation of the Air Quality Information System (AQIS) which includes also the air pollution sources. The CHMI has been authorized to serve as:

- a center for the definition of zones and agglomerations exceeding limit values with regard to EC legislation,
- an accredited calibration laboratory for measurements of air pollution and a reference center of ambient air pollution monitoring in compliance with EC legislation,
- a reference center for air pollution modelling with a view to air quality assessment pursuant to EC legislation for the Czech Republic,
• a reference center for emission and air pollution data processing according to the requirements of the Secretariat of the Economic Commission for Europe and for the European Community pursuant the respective EC legislation, incl. emission projection,
• a center processing the reports on air quality in the line with the respective EC legislation on the exchange of information and in agreement with international treaties,
• an administrator and operator of the Air Quality Information System, incl. the operation and development of the Register of Emissions and Air Pollution Sources,
• a control center, under Decree No. 41/1992 issued by the MoE which specifies the areas that require air quality control and lays down the principles governing the creation and operation of smog control systems and other measures for air quality protection,
• an expertise pool in air quality.

The Czech Hydrometeorological Institute is the organisation currently involved in project Phare Topic Link/Air Quality (PTL/AQ) “Strengthening Capacity in Phare Accession Countries in Environmental Reporting” under a contract number 99-0206.00. This project is closely linked to European Topic Centre Air Quality (ETC/AQ) Project and PTL/AQ main role is to assist with ambient air quality information and data flows from accession countries to ETC/AQ.

There are no institutional constraints with regard to the project contents. The CHMI’s activity ensues from the competencies specified in the charter issued by the MoE and is financed from the state budget. The project will be implemented by the employees of the CHMI. The results of the project will not lead to the change in the institutional framework. The CHMI, i.e. a state organization, will become the owner of the assets after the project completion.

5. Detailed Budget (in M €)

<table>
<thead>
<tr>
<th>Project Components</th>
<th>Investment Support</th>
<th>Institution Building</th>
<th>Total Phare (= I + IB)</th>
<th>National Co-financing</th>
<th>IFI</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
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<td>0</td>
<td>4.0</td>
<td>0</td>
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<td>0</td>
<td>0</td>
<td>1,451 x)</td>
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<td>1,451</td>
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<tr>
<td>TOTAL</td>
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<td>0</td>
<td>0</td>
<td>1,451</td>
<td>0</td>
<td>5,451</td>
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</table>

x) See Annex 4

6. Implementation Arrangements

6.1. Implementing Agency:

The CFCU is the Implementing Agency responsible for tendering, contracting and accounting. The project will be administered by CFCU: **Mr. Jan Slavíček**, CFA, kpt. Jaroše 1000, Praha 7, Czech Republic.
The technical implementation will rest upon Czech Hydrometeorological Institute
Address: Na Sabatce 17, 143 06 Praha 4 – Komorany
Mr. Jaroslav Santroch, CSc.
Phone: 02/4016719
Fax: 02/44032468
E-mail: santroch@chmi.cz

6.2 Contracts
Forseen 1 Phare contract – 4.0 M €

7. Implementation Schedule

7.1 Start of tendering
Expected start of tendering is 1 September 2001.

7.2 Start of project activity
Expected date of commencement of contract is 1 April 2002.

7.3 Project completion
Expected date of completion is 30 November 2002.

8. Equal Opportunity
Equal opportunities for men and women will be guaranteed.

9. Environment
Investment components in this project relate to Institution Building activities.

10. Rates of Return: N/A

11. Investment Criteria: N/A

12. Conditionality and Sequencing
Successful implementation of the project is related to the New Clean Air Act, which is supposed
to come in force in November 2001.

The project will use the results of the Phare project CZ 9809-02-01 ”Implementation Investment
Strategies for EC Air Directives”. Instrumentation requirements will be confirmed by the
principal outputs of this project.

The project is submitted as a logical follow-up of the Phare project CZ 2000 – 05 – 03
“Institutions for Permitting and Monitoring in the Air Quality Sector” will fulfil requirements set
by Implementation Plan. They ensure instrumentation for Air Quality Monitoring in order to fulfil the New Clean Air Act.

**Annexes to Summary Project Fiche**

1. Logframe Matrix
2. Detailed Implementation Chart
4. Contracting and Disbursement Schedules for the Project
### LOGFRAME PLANNING MATRIX FOR

**Programme name and number:**

<table>
<thead>
<tr>
<th>1.1. CZ01-06-01</th>
</tr>
</thead>
</table>

**Contracting period expires:** 31/10/2003

**Disbursement period expires:** 31/10/2004

**Total Budget:** 5,451 MEUR

**Phare contribution:** 4.0 MEUR

#### Overall objective

- Ability to take on the obligations of membership of EU.
- Compliance with the Acquis Communautaire for the environment sector – Air Quality Area
- After successful completion of the project the chapter Environment in the field Air Pollution Monitoring should be closed

#### Project purpose

- The project assists with the implementation of the Framework Council Directive 96/62/EC on Ambient Air Quality Assessment and Management and Daughter Directive 99/30/EC and 2000/69/EC establishing a framework for Community action in the field of ambient air quality management with the ultimate aim of ensuring full compliance with these Directives and other EC legislation concerning ambient air quality. The regular ambient air quality monitoring network must be fully compatible with requirements laid out by Framework Directive and Daughter Directive as to principal components to be measured, as to assessment (measuring and modelling) techniques to be used.
- Full compliance of the Czech air quality monitoring network with the EU Framework Directive on ambient air quality and with the standards of EU countries in air pollution monitoring.
- The delivery of instrumentation for air pollution monitoring is an important condition for fulfilment obligations of air quality reporting to EU and EEA;
- Air quality data will be obtained, verified and evaluated according to appropriate directives and instructions of EU;
- New Clean Air Act will be in effect November 2001
- New IPPC Act will be in effect in September 2001
- Instrumentation for Air Pollution monitoring Network in the framework of Phare 2000 twinning project in the Air Quality Sector is successfully completed.

#### Objectively verifiable indicators

<table>
<thead>
<tr>
<th>Sources of verification</th>
</tr>
</thead>
<tbody>
<tr>
<td>After successful completion of the project the chapter Environment in the field Air Pollution Monitoring should be closed</td>
</tr>
<tr>
<td>New Clean Air Act will be in effect November 2001</td>
</tr>
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</tbody>
</table>
The implementation of the project is a logical continuation of the Phare CZ 2000-05-03 “Institutions for Permitting and Monitoring in the Air Quality Sector” project which is aimed to provide: specification of the responsible persons and institution in order to fulfil the implementation of Directives 96/62/EC, 99/30/EC and 2000/69/EC; evaluation of the air quality from the standpoint of pollution compared with the set limit values; development of means of measurement and other methods of evaluation (methods, instruments, measuring network, laboratories); establishing and maintenance of the quality and control of measurements, including internal provision, analysis of evaluation methods, co-ordination of control of establishing and maintenance of quality assurance programs according to EU rules; information for public.

<table>
<thead>
<tr>
<th>Results</th>
<th>Objectively verifiable indicators</th>
<th>Sources of verification</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>The project produces a nationwide ambient air quality monitoring network that will ensure measurements and results required by the Framework Directive 96/62/EC and Daughter Directives 99/30/EC and 2000/69/EC. To be specific:</td>
<td>Fulfilment of requirements of the EC Framework Directive 96/62 and Daughter Directives 99/30/EC and 2000/69/EC; Exchange of Information according to 97/101/EC from Air pollution Monitoring Networks Connection to the environmental MIS (Management Information System)</td>
<td>Established and full operation of national automated air quality monitoring network according to the Framework Council Directive 96/62/EC and Daughter Directives for: - sulphur dioxide – 15 stations, nitrogen oxides – 60 stations, PM 10 – 60 stations, PM 2.5 – 20 stations, Ozone – 33 stations, BTX – 20 stations, PAH sampling – 20</td>
<td>Effective management of Air Pollution Monitoring Network in the CR; By the project completion will be fulfil monitoring requirements not only of existing EU Directives but also of the EC Daughter Directives which are under the preparation in EU (Heavy metals, persistent organic compounds)</td>
</tr>
</tbody>
</table>
- The ambient air pollutants set up by the Framework Directive 96/62/EC and covered in detail as to their levels by Daughter Directives 99/30/EC and 2000/69/EC are monitored;
- The limit values specified are introduced and the exceedance of these reported to EC;
- The requirements specifying the number of measuring stations, their types, macrosetting and microsetting are met;
- The methods for ambient air quality sampling and analysing methods required are introduced;
- The requirements on information of public are fulfilled;
- The reporting obligations to EC are assured;
- System) and EUROAIRNET provided by the Czech Hydrometeorological Institute
- Providing data for AIRBASE of EIONET
- Obtained data for the public sector, governmental authorities in the Czech Republic, international exchange of information and reporting to the responsible EU and EEA bodies
- stations, Heavy Metal – 20 stations, Mercury – 3 stations, HM analysis – ICP analyser, GIS workstations, ORACLE SW, Network output.
- Prepared network meets the criteria of stations density according to EC Directives;
- The extend and instrumentation of network is comparable with the Member states
- Operational and maintenance cost are included in the Approximation strategy of the Ministry of Environment of the CR

<table>
<thead>
<tr>
<th>Activities</th>
<th>Means</th>
<th>Assumptions</th>
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</thead>
</table>
| Based on requirements of the Directive 96/62/EC and Daughter Directives 99/30/EC and 00/60/EC: | Investment – equipment (12 types of equipment =195 pieces of monitoring equipment). A list of required equipment is specified in Annex 1 | Linked activities – Phare projects
- CZ 9809 / 02 01 “Implementation / Investment Strategies for EC Air Directives”, started in 7/2000. Outputs: economic impacts of the implementation of EC legislation in the Air Quality Area
- CZ 2000 – 05 – 03 “ Institutions for Permitting and Monitoring in the Air Quality Sector” - will be started 7/2001. Outputs:
  - description and in particular establishment of all relevant institutions, specification of their individual responsibilities and how they will be interact to ensure compliance with the EC legislation in the air quality area
  - a partial equipment for air quality monitoring: PM 10 and PM 2.5 Analysers, |
| 1. Essential instrumentation for 60 air quality monitoring stations monitoring will be bought and introduced into operation. | Documentation/manuals and guidelines for devices for monitoring of air pollutants in Czech language | |
| 2. The air pollution monitoring network will be fully operational according to Framework and Daughter Directives | Training for operation and service of devices listed in Annex 1 | |
| 3. Monitoring of sulphur dioxide, nitrogen dioxide and nitrogen oxides, SPM, PM-10, ozone, lead, benzene, carbon monoxide heavy | |
 metals and organic compounds will be provided.
4. Training of technicians for operation and service of instruments and network will be provided.

<table>
<thead>
<tr>
<th>Sampling PAH devices (see Annex 1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procured material is defined complementary and extending the investment component of the project CZ 2000-05-03.</td>
</tr>
<tr>
<td>Co-financing from the state budget: 1.451 MEUR. A chart which describes financing of the project is in the annex 1</td>
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<tr>
<td>This project will cover all the needs of the National Air Quality Network.</td>
</tr>
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</table>

Preconditions
• Using existing monitoring stations (shelters, radio transmission, PCs, regional centres) for upgraded network
• Successful implementation of the project Phare 2000 in the Air Quality Monitoring (the investment parts) till the end of the year 2001.

The new network will reduce number of stations from existing 96 to 60 stations in which the going equipment will be replaced. Remaining 30 stations will be either financed from private sources on the base of national projects or might be closed down. Number of newly equipped stations will be fully sufficient for performance of Directives of EU and the network will be more effective.
- Detailed Implementation Chart for the Project

<table>
<thead>
<tr>
<th>Year</th>
<th>2001</th>
<th></th>
<th>2002</th>
<th></th>
<th>2003</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Detailed Project Implementation</td>
<td>J</td>
<td>J</td>
<td>A</td>
<td>S</td>
<td>O</td>
<td>N</td>
</tr>
<tr>
<td>a) Productive investment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Tendering</td>
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<tr>
<td>Contracting</td>
<td></td>
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<tr>
<td>Implementation</td>
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INVESTMENT COSTS FOR PHARE 2000, 2001 AND STATE BUDGET MINISTRY OF ENVIRONMENT OF THE CR

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<tbody>
<tr>
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<td>MEUR</td>
<td>Pcs</td>
<td>MEUR</td>
<td>Pcs</td>
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<td>Analyser PM-2,5</td>
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<td>Sampler PAH</td>
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<td>Software ORACLE</td>
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<td>Nox analyser</td>
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<td>Automat.dilut.syst.</td>
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<td>BTX analyser</td>
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<td>Samplers for HM</td>
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Contracting and Disbursement Schedule for the Project

Cumulative Quarterly Contracting Schedule (MEUR)

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<th>1Q/02</th>
<th>2Q/02</th>
<th>3Q/02</th>
<th>4Q/02</th>
<th>1Q/03</th>
<th>2Q/03</th>
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<tbody>
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Cumulative Quarterly Disbursement Schedule (MEUR)

<table>
<thead>
<tr>
<th>Project</th>
<th>4Q/01</th>
<th>1Q/02</th>
<th>2Q/02</th>
<th>3Q/02</th>
<th>4Q/02</th>
<th>1Q/03</th>
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<th>3Q/03</th>
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