

Standard Summary Project Fiche – IPA decentralised National programmes
(maximum 12/15 pages without the annexes)

1. Basic information

- 1.1 CRIS Number: TR2009/0327.01
- 1.2 Title: Control of Industrial Volatile Organic Compound Emissions
- 1.3 ELARG Statistical code: 27 - Environment
- 1.4 Location: Turkey

Implementing arrangements:

1.5 Implementing Agency:

The CFCU will be Implementing Agency and will be responsible for all procedural aspects of the tendering process, contracting matters and financial management, including payment of project activities. The director of the CFCU will act as Programme Authorizing Officer (PAO) of the project.

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1.6 Beneficiary (including details of SPO): Main beneficiary of the project is the Ministry of Environment and Forestry. Other beneficiary for the component of this project is Ministry of Transport. Details of the **Senior Programme Officer (SPO)** , Project leader, RTA counterpart and technical experts are as follows:

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Financing:

1.7 Overall cost (VAT excluded)¹: 2.850.000€

1.8 EU contribution: 2.625.000

1.9 Final date for contracting: 2 years after the signature of the Financing Agreement

1.10 Final date for execution of contracts: 2 years after the last date of the contracting deadline.

1.11 Final date for disbursements: 3 years after the last date of the contracting deadline.

2. Overall Objective and Project Purpose

2.1 Overall Objective: Control of Volatile Organic Compound (VOC) emissions to improve environmental quality in Turkey and to reduce or prevent the potential risks to human health and to prevent ground level ozone pollution.

2.2 Project purpose:

Develop administrative and legal conditions and structures to harmonise and implement the three EU Volatile Organic Compound Directives (Storage-94/63/EC, Solvents-99/13/EC, Paints-2004/42/EC)

2.3 Link with AP/NPAA / EP/ SAA

The Accession Partnership(AP):

Council Decision of 18 February 2008 on the principles, priorities and conditions contained in the Accession Partnership with Republic of Turkey and repealing Decision 2006/35/EC. (2008/157/EC)

In the short term those priorities for environment are:

- Adopt a comprehensive strategy for the gradual transposition, implementation and enforcement of the *acquis*, including plans for building up the necessary administrative capacity at national, regional and local level and required financial resources, with an indication of milestones and timetables
- Continue transposition, implementation and enforcement of the *acquis*, in particular horizontal and framework legislation, such as the environmental impact assessment, including transboundary aspects, as well as strengthening of administrative capacity

In the medium- term the priorities for Environment are;

- Continue to transpose and implement the *acquis* related to the framework legislation, international environmental conventions and legislation on nature protection, water quality, chemicals, industrial pollution and risk management and waste management

¹ The total cost of the project should be net of VAT and/or other taxes. Should this not be the case, the amount of VAT and the reasons why it should be considered eligible should be clearly indicated (see Section 7.6)

- pursue integration of environmental requirements into other sectoral policies,

The National Programme for the Adoption of Acquis (NPAA):

Turkey National Programme document, under the sub-priority air quality; indicates that Regulation on the control of Volatile Organic Compounds from the petroleum storage facilities with scope of control of the Volatile Organic Compounds emissions from the petroleum and petroleum products storage, filling and discharging and transportation facilities will come into force by the end of 2012.

- Determination of the competent authority, standards for storage and transportation units and approval procedures, present situation of the facilities
- Ensuring the coordination and cooperation between the corporations
- Deciding on the investments needed to be done between 2010-2015 as laid down in National Programme of the year 2008 .

Turkey National Programme document, under the sub-priority air quality, indicates that Regulation on the control of Volatile Organic Compounds pollution will come into force by the end of 2011

- Inventory preparation,
- Provisions and limit values laying down in national legislation
- Solvent reduction and change programs preparation
- About programs and VOC emission calculation procedure education
- VOC emission calculation criteria determination
- Permission and monitoring mechanisms formation
- Proper paint criteria formation and standard preparation
- Determination of the produced paints to be consistency with directive 2004/42 requirements needed to be done between 2010-2015 as laid down in National Programme of the year 2008 .

2.4 Link with MIPD

To provide IPA assistance to Turkey to support progress towards adoption and implementation of the *acquis communautaire*, is a priority expressed in MIPD. Furthermore, MIPD states that: “Meeting environmental norms will constitute one of the most expensive aspects of Turkey’s EU integration effort. Meeting environmental norms will constitute one of the most expensive aspects of Turkey’s EU integration effort. Legal and institutional harmonization with the environmental acquis and the activities of environmental NGOs will be supported under Component I; Components II and III will cofinance environmental investment projects; environmental protection considerations will also be taken into consideration in other investment projects, notably transport infrastructure, and in agriculture-sector projects (Component V). Environmental authorities and NGOs will be involved in programme development and monitoring.

Among the *acquis communautaire*, industrial pollution control and air quality sectors are major sectors and the Project addresses one of the primary priorities of the investment policies.

2.5 Link with National Development Plan (where applicable)

- EU accession is mentioned as a primary target, and legal harmonization is agreed to be one of the first steps to be taken.
- It was stated that harmonization of the EU environmental standards will increase life standards in Turkey. The plan also mentions the need for capacity increase in the field of environment in order to achieve sustainable development goals and EU harmonisation in Industrial Pollution control sector (due to high investment needs and administrative burdens).

2.6 Link with national/ sectoral investment plans(where applicable)

EU Integrated Environmental Approximation Strategy (UÇES) covering the period 2007-2023 contains the information on pertaining to the technical and institutional infrastructure, the environmental improvements that are required to be performed as well as the mandatory arrangements which are necessary to establish complete harmonization for compliance with EU Environmental Acquis Communautaire and the effective implementation of the legislation which are the two pre-conditions for Turkey to join European Union.

In the preparation of UÇES, outputs from the following documents were made use of; “National Environmental Strategy and Action Plan” that was prepared as a basis beforehand and the “Integrated Approximation Strategy Project” that was realized with the EC funds and the “Environmental Heavy Cost Investment Planning Project”. Furthermore, care was taken to make sure that the strategy paper was prepared in line with the Development Plan, Annual Programs, and the strategies and policies of the National Program.

Under the Air Quality title of UÇES, it is mentioned that on Volatile Organic Compound Emission(VOC) Directives (94/63/EC-99/13/EC&2004-42/EC) technical studies and infrastructural investments are needed in order to strengthen technical capacity. It is also mentioned as the directives on Volatile Organic Compound Emissions have not yet been reflected into our legislation yet.

3. Description of project

3.1 Background and justification:

Current situation:

From 1986, there is an environmental legislation to limit the organic gases and vapors emissions and to set the permission procedure according to their capacity and activity. Ministry of Environment and Forestry is responsible from giving emission permits from May 2003. MoEF had revised this legislation two times and last version, By-Law on Control of Air Pollution From Industrial Plants (BCAPIP) was published in O.J.26236, dated on 22.07.2006. Facilities classified according to their capacities as in List A and List B by By-Law on Control of Air Pollution Caused by Industry Facilities. List A permit is given from Ministry by Industrial Pollution Control Division, List B permit is given from Provincial Directorates. Scope of List A permit was wider since capacity for giving emission permit was not sufficient in Directorates. By-Law on Control of Air Pollution Caused by Industry Facilities was revised, Draft By Law was prepared and it is expected to come into force until

the half of the 2009. Important change is increasing the scope of List B since it is easier to take permit from Provincial Directorate where facility is located. It is expected that work load of the staff of Industrial Pollution Control Division will decrease significantly with this change. Another change in the Ministry was increasing the number of technical staff, number of technical staff of the Division is increased with %50 at the beginning of the 2007. All new staff know English, orientation period of them is completed.

BCAPIP is not fully accord in the EU Directives. Industrial Pollution Control Division is responsible to transpose six European Council Directives. These Directives are; Integrated Pollution Prevent and Control (IPPC) Directive, Large Combustion Plants Directive (2001/80/EC), Limitation of Emissions of Volatile Organic Compounds due to the use of Organics Solvents in Certain Activities 99/13/EC, Limitation of Emissions of Volatile Organic Compounds due to the in Certain Paints and Vehicle Refinishing Products 2004/42/EC, Control of Volatile Organic Compound (VOC) emissions resulting from the storage of petrol and its distribution from terminals to service stations 94/63/EC and Sulphur Content of Liquid Fuels Directive (99/32/EC). Teams were established for each Directive that division is responsible to transpose. Therefore six teams was established in the division; each team has at least three technical staff. There is at least one staff who knows English and one staff who has minimum 10 year experience. Head of the division is the leader of all these teams. Since teams for each Directive is different, it is not expected that any difficulty will be faced during the implementation period of the project .

Two MATRA project (bilateral projects with the Netherlands) for IPPC Directive and IPA project for LCP Directive was completed by coordination of this division. These finalised projects increase the experience of the technical staff of the division on project management and coordination of all competent authorities during projects. Therefore problems about project management are not expect during the implementation of the project.

Project proposal for IPPC Directive is accepted in IPA-2008 Programme and is expected to start at the end of the 2009. Twinning project was completed for LCP Directive and there is draft legislation for LCP transposition but for effective implementation it is required to determine realistic transition periods for existing large combustion plants.

For 99/13/EC, 2004/42/EC, 94/63/EC Directives transposition studies started in the beginning of 2008. At least three meetings with component authorities and stake holders were done in a year. Awareness of related sectors and component authorities are increased. Transposition studies of these three directives had been postponed because of priorities of transposition studies of IPPC and LCP Directives and heavy work load.

Problems faced:

Air Quality Framework and its Daughter Directives are fully transposed with By-Law of Air Quality Management and Assessment which came into force on 06 June 2008. To effective implementation of Air Quality Framework Directive in our Country three VOC Directives have to transpose rapidly. Also to comply especially ozone limit values in the By-Law of Air Quality Management and Assessment; decreasing Volatile Organic Compound Emission is a must. Transposition of these three directive will help to control and decrease VOC emissions and effect the implementation period of the Air Quality Framework Directive.

Key Problem:

94/63/EC Directive:

European Parliament and Council Directive 94/63/EC on the control of volatile organic compound (VOC) emissions resulting from the storage of petrol and its distribution from terminals to service stations have not been fully transposed in Turkey.

According to the Directive, VOCs from petrol and solvents in the Community would be in the order of 10 million tons per year if no control measures were taken; whereas VOC emissions contribute to the formation of photochemical oxidants such as ozone, which in high concentrations can impair human health and damage vegetation and materials; whereas some of the VOC emissions from petrol are classified as toxic, carcinogenic or teratogenic.

Technical provisions of the Directive can be classified in four groups as; storage tanks, loading and unloading operations, mobile containers and service stations. According to implementation areas of these four topics in our country, responsible institutions are determined as; Ministry of Environment and Forestry (MoEF), Ministry of Transport (MoT), Ministry of Industry and Trade (MoIT). MoEF issues emission permits for storage terminals, the Ministry of Transport is in charge of approval and registration of motor vehicles and trailers designed for transport of dangerous substances. Motor vehicles and trailers designed for transport of dangerous substances (covered by 98/91/EC) are approved and registered for traffic by Ministry of Industry and Trade. Ministry of Transport and Ministry of Industry and Trade were informed, invited to make changes in the LFA and the fiche. It was later stated by MoIT that MoIT would not act as a co-beneficiary for the Project but have responsibilities about the Directive. However; this is not regarded as a barrier against the successful implementation of this project; since the contribution of MoIT to the project is to be provided at a satisfactory level as a main stakeholder, for all the activities that their contribution is required.

Directive's scope for our country is not known. Inventory of storage terminals, service stations and mobile containers that are covered by the Directive must be established. There are 4 refineries that have been owned by Turkish Petroleum Refineries Corporation. Petroleum products of these refineries distributed to the country from private distribution companies. Storage terminals, service stations, vessels and railway tankers are registered by Energy Market Regulatory Authority (EMRA), licence had to be taken from EMRA to storage and distribute the petrol. Number of them is available on web site of EMRA, according to update data there are 78 Storage terminals with 3.951.124 m³ storage capacity and 14.864 service stations in Turkey. Detailed data about storage terminals is not available except total storage capacity. It is needed to determine throughputs of all storage terminals and service stations. However EMRA give license petroleum storage and distribution, EMRA is not responsible for transposition because it is indicated that licenses are given according to other institutions approvals/legislations. EMRA will be invited to project as a stakeholder.

Mobile containers are another key problem for transposition and implementation of the Directive. Precise data is not available about number of mobile containers. It is estimated that number of road tankers is around 12.000. Licenses for road tankers are given from Ministry of Transport. Other mobile containers (vessel, rail way) take licenses from EMRA, but license is

given to the company. Information on number of mobile containers that companies own is not available.

Another issue is the compliance with the Directive. A detailed inventory must be established to determine facilities that are affected from transposition of Directive and technical requirements for the compliance. Investment costs of the technical requirements must be determined. Thus regulatory impact analysis is needed before determine realistic transition periods.

99/13/EC & 2004/42/EC Directive:

Regulation namely By-Law on Control of Air Pollution From Industrial Plants. (BCAPIP) (Annex 2 and Annex 3) was published in O.J.26236, dated on 22.07.2006. In this regulation monitoring of VOC emissions and ambient air quality have been envisaged. However, a monitoring mechanism has not been established yet according to directive requirements.

There is difference about capacities and varieties of the installations subject to permission in the legislation and in the Directive. Some installations in the Directive are not subject to the permission in our country. The emission limits of installations, unit of measurement and emission concentrations differ in two cite. The emission limits being used in general are bigger than the ones in the directive. Also, the legislation is not consistent with the Directives 99/13/EC and 2004/42/EC

Turkish Standard Institute is responsible for preparing and publishing of various standards including paint standards (2004/42) also. As a result, on the scope of 2004/42 directive legislation studies TSE should study in coordination with the MoEF

On the state of play, the emission permission application of installations subject to permission are assessed by Provinces and MoEF according to the capacities of installations. However, there isn't inventory of facilities in the scope of Directives (99/13/EC and 2004/42/EC). Moreover, there is need for study to determine required technical and institutional capacities of competent authority. (MoEF and Provinces).

How will project solve key problem :

94/63/EC Directive

Since Directive 94/63/EC includes technical requirements about different topics, legal framework that will be include all competent authorities must be established. For this purpose, Turkey's legal situation must be clearly analysed, legal gap analysis must be made and legal framework propositions must be prepared with experiences of EU-Member state experts. Benchmarking with other EU member states is especially required on this topic.

Inventory of storage terminals, service stations and mobile containers can be prepared with technical assistance contract of this project with effective coordination of beneficiaries and stakeholders.

Since Directive provisions and especially annexes are very technical to be transposed by the competent authorities it is decided to propose a technical assistance/institution building project. Knowledge and technical capacity of staff of Beneficiaries must be increased on best available techniques and other techniques that referred in the Directive to convince the private sector to make investments. Techniques which were used in EU-Member States and best

available techniques in this topic must be studied and suitable techniques for our country must be selected with relevant sector.

99/13/EC Directive and 2004/42/EC Directive:

The problems mentioned earlier can be solved by the offered this Project. Draft legislation for transposition of the 99/13/EC and 2004/42/EC Directives will be prepared by the end of the project.

Inventory of facilities in the scope of Directives for selected sectors will be established by the end of the project. Also, Realistic time periods for full implementation will be determined by cost analysis and RIA report by the end of the project.

Required technical and institutional capacities of competent authorities will be determined and increased at the end of the project.

For paints standards by the help of the project, coordination with TSI will be achieved.

3.2 Assessment of project impact, catalytic effect, sustainability and cross border impact (where applicable)

Project Impact

Major impact of the project is to preparation of draft legal legislation for harmonisation of EU VOC Directives and implementation plans.

Catalytic Effect

Project results when achieved are foreseen to have catalytic positive effects on public administration, application of good governance principles, reinforcing local and regional bodies, project will also positive catalytic effects on the implementation of the Directives. Draft legislation will include suitable legal framework for the implementation and realistic transition periods, coordination between competent authorities and awareness of all stakeholders will be increased as project results. In this situation problems during the implementation will be minimized and more effective implementation of the Directive will be ensured. Increasing the technical capacities of the staff of component authorities will have positive effect other transposition studies .

Sustainability:

Sustainability depends on governmental will to improve environmental administration, empower local administrations to carry out duties with regard to subsidiary principle. Annual updating the data of facilities inventory is required to determine compliance situation of the Country to the Directive. For this purpose, MoEF will trained Provincial Directorates to ensure the sustainability of inventory.

Technical requirements of three VOC Directives require investment costs that belong to private sector. Private sector will be enforced by the government with harmonization of the

Directives and since they will contribute the cost analysis and regulatory impact analysis activities, awareness of them will increase and it will more easier to convince them to make investment as a result of this project.

3.3 Results and measurable indicators:

Results	Objectively verifiable indicators
1. Draft legal text was prepared at the end of the project.	Draft legislations for transposition of the 94/63/EC, 2004/42/EC and 99/13/EC Directives has been prepared by the end of the project.
2. Implementation plan was prepared.	2.1 Inventory of facilities in the scope of Directives (94/63/EC& 2004/42/EC) or in the selected sectors for the Directive 99/13/EC was established by the end of the project. 2.2 Realistic time periods for full implementation were determined by cost analysis and RIA report by the end of the project
3. Administration and technical capacity to roll-out implementation plan was developed.	3.1 An agreed document on required institutional and technical capacities of competent authorities was prepared by the end of the project. 3.2 At least 3 training seminars and 3 study visits were made at the end of the project

3.4 Activities

Activity 1.1 (Twinning)

Legal/institutional evaluation report for the three Directives was prepared.

For this activity our proposal were given below;

- Kick off meeting of project with 100 participants for 2 days. In the meeting all stakeholders were informed about project.
- 1 workshop with 50 participants from competent authorities for 4 days was made. In this workshop working groups were established and MS experts were informed about relevant legislations of competent authorities.

Activity 1.2 (Twinning)

Legal gap analysis was made for the three Directives.

For this activity our proposal were given below;

- 1 workshop with 50 participants from competent authorities for 4 days was made. Legal gaps were determined by working groups as a draft.

Activity 1.3 (Twinning)

Roles and responsibilities of competent authorities and coordination strategies for transposition of 94/63/EC were determined optionally.

For this activity our proposal was given below;

- 1 workshop with 25 participants from competent authorities for 1 day. All competent authorities were informed about their roles and responsibilities for transposition.

Activity 1.4 (Twinning)

Benchmarking with MS for all directives transposition and implementation structures.

For this activity our proposal was given below;

- 2 study visits with 15 participants and 3 days, one for 99/13/EC&2004/42/ EC and one for 94/63/EC was made to support this activity. Integration of the visit is not possible because as mentioned earlier teams of 94/63/EC and 99/13/EC&2004/42/EC are different, number of technical staffs in the teams are %75 of the total staff number of the industrial pollution control division. Therefore, they would not be allowed to go together because of other work load of the division.

Activity 1.5 (Twinning)

Benchmarking with MS standards for paint criteria on the scope of the Directive 2004/42/EC and draft paint standards if necessary preparation with working group including TSI

For this activity our proposal was given below;

- 2 meetings with 10 participants for 3 days was arranged. Aim of first meeting is; information exchange with TSI and MS standards, inform and convince TSI to prepare new standard. Second meeting was arranged to study about draft standard for 5 days.

Activity 1.6 (Twinning)

Preparation of draft legislation proposals for transposition of three Directives and the guidelines to help the stakeholders for three Directives.

Activity 2.1 (Technical Assistance)

Establishment of inventory and evaluation of compliance to the three Directives.

Inventory was established for storage terminals, loading-unloading operations, service stations and mobile containers that covered by Storage Directive; for selected sectors within the Solvents Directive and paint sector that mentioned in the Paints Directive. Inventory was reported as a database that ensures data entry, storage and processing.

For this activity our proposal was given below;

- 2 seminars with 100 participants from all stakeholders were made at beginning and at the end of inventory preparation.

For the evaluation of compliance of selected sector for 99/13/EC to the Directive our proposal was given below;

- 1 site-visits with 15 participants of MoEF for 3 days was made.

Activity 2.2 (Technical Assistance)

Assessment of implementation costs of three Directives.

Implementation costs of Directive 94/63/EC was determined for different scenarios.

- sharing vapor recovery unit for closer terminals
- different vapor recovery techniques, etc.

Implementation costs for selected sectors within the Solvents Directive and paint sector that mentioned in the Paints Directive was determined.

Activity 2.3(Twinning)

Regulatory impact analysis for three VOC Directives was made using inventory (Activity 2.1) and cost analysis data (Activity 2.2). Inventory and cost analysis data were taken from technical assistance team.

For this activity our proposal was given below;

- 1 training on regulatory impact assessment with 30 participants for 3 days was made.
- 1 seminars with 100 participants from all stakeholders were made at the end of regulatory impact assessment.

Activity 2.4 (Twinning)

Implementation plan was prepared.

Activity 3.1 (Twinning)

Institution needs assessment studies was conducted.

Activity 3.2 (Twinning)

Training according to results of needs assessment studies (activity 3.1).

For this activity our proposal was given below;

- 1 training on the technical requirements of the three Directives with 100 participants for 3 days was made
- 1 training on the best available techniques about petroleum storage and API standards that referred in the Directive 94/63/EC with 25 participants for 3 days was made.
- 1 training on the best available techniques in the IPPC BREF's linked to VOC related activities 99/13/EC and 2004/42/EC directives on the concept of emission reduction techniques (ex. organic fine chemicals and surface treatment of metals.) with 50 participants with the related institutes and stakeholders for 3 days was made.

Activity 3.3 (Twinning)

Study visit to analyze related techniques with three Directives and technical implementations of the Directives in different EU-Member States.

94/63/EC

- Technical requirements of the Directive such as Stage 1&2 vapor recovery system and bottom loading operations were need to analyzed where these techniques fully implemented by 1 study visits with 15 participants for 4 days.

99/13/EC&2004/42/EC

- Study visit arrangements to analyze related techniques, transposition and implementation condition about 99/13/EC and 2004/42 Directives which were used in different EU-Member States and best available techniques in this topic by 1 study visits with 15 participants for 4 days.

Study visits can not planned as combined because technical requirements and related sectors and technical teams of Directives are very different.

Activity 3.4 (Twinning)

Technical requirements of the Directive 94/63/EC and best available techniques were studied with relevant sector in workshops and site-visits.

For this activity our proposals were given below;

- 2 workshops with 50 participants from all stakeholders for 2 days and
- 1 site-visits with 15 participants for 3 days were made.

This directive requires investment cost that belongs to private sector. This activity was planned for the sustainability of the project. Awareness of private sector must be increased and must be convinced to make required investments. Other advantage of this activity is increasing technical knowledge of the technical staff by investigating techniques on site.

3.5 Conditionality and sequencing:

There are no preconditions for the execution of this project. But activity 2.3 and 2.4 will start after activity 2.1 and 2.2 was completed.

Sequencing of events is due to change according to the resources to be mobilised; yet the activities depending on each other's outputs shall be duly arranged. The training activities of the TA contractor have to be fine-tuned with the procedural manuals prepared under the twinning contract. Co-operation and communication between the twinning partner and the TA partner is a must. Following tables include planning orders of the activities.

Activity in Twinning Component	YEAR 1				YEAR 2			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
1.1 Legal/institutional evaluation report for the three Directives was prepared.	X							
1.2 Legal gap analysis was made for the three Directives.	X	X						
1.3 Roles and responsibilities of competent authorities and coordination strategies for transposition of 94/63/EC were determined optionally.		X	X					
1.4 Benchmarking with MS for all directives transposition and implementation structures.		X	X					
1.5 Information exchange with MS standards for paint criteria on the scope of the Directive 2004/42/EC and draft paint standards if necessary preparation with working group including TSI			X	X				
1.6 Preparation of draft legislation proposals for transposition of three Directives and the guidelines to stakeholders						X	X	
2.3 Regulatory impact analysis for three VOC Directives was made using inventory and cost analysis data.					X	X		
2.4 Implementation plan was prepared.					X	X		
3.1 Institution needs assessment studies was conducted.	X							
3.2 Training according to results of needs assessment studies		X		X		X		

3.3 Study visit to analyze related techniques with three Directives and technical implementations of the Directives in different EU-Member States.		X		X				
3.4 Technical requirements of the Directive 94/63/EC and best available techniques were studied with relevant sector in workshops and site-visits.					X	X		

Activity in Technical Assistance Component	YEAR 1				YEAR 2			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
2.1 Establishment of inventory and evaluation of compliance to three Directives.	X	X	X	X				
2.2 Assessment of implementation costs of three Directives			X	X				

3.6 Linked activities

There is a need for strengthening of the institutional structure to ensure the full and effective implementation, monitoring and inspection of the existing legislation as well as the related EC Directives. Many of the EU funded projects have been completed in Ministry of Environment and Forestry. These projects provided a base for improving at institutional level.

“Air Pollution Measurement and Monitoring Systems”: It is a national project, which has been finalized in 2002. In this project, generally, locations and number of measurement stations were determined in 81 cities, and financial analysis was made according to EU requirements.

“Analysis of Environmental Legislation in Turkey”: This project was completed in 2002. An analysis of Turkish environmental legislation and the gaps according to EU legislation were given.

Within the framework of the MATRA Pre-Accession Projects Program (MAT02/TR/9/2), “Strengthening of the implementation of the Council Directive 96/62/EC and Council Decision 97/101/EC on ambient air quality assessment and management, and reciprocal information exchange in the RSCH, MoH, Turkey” Project has been carried out in the period of January 2003-December 2004. This project consists of the preparation for reporting of Turkish air quality information to EU, the development at institutional level of RSCH and MoEF in air quality, the preparation of preliminary assessment and basis air quality monitoring and policy, introduction of a quality system according to ISO17025 in the RSCH-air quality and research laboratory. Ankara Metropolitan Area and City of Kütahya preliminary assessments were made.

“Capacity Building (Human Resources Aspect) on the adoption of Integrated Pollution Prevention and Control Directive (IPPC-96/61/EC)”: The project was supported by the Dutch PSO Program. The objective of the project was to develop in-depth understanding of

the IPPC Directive and design an action plan for adoption and implementation in Turkey. The project was finalised in 2004.

”Integrated Harmonisation Strategy Project” project defined the programme through which the necessary changes in legislation and implementation will be achieved in Turkey. The strategy covers a period of 20 years, starting in 2003, in order to ensure that all long term investment needs are included. The strategy covers all nine sectors of the environmental acquis. The environmental approximation strategy was prepared at three levels: Firstly, a series of Directive Specific Implementation Plans (DSIP) was prepared. Secondly, a Sector Approximation Strategy (SAS) was prepared for each of the nine sectors including air sector. Finally, a single Integrated Approximation Strategy (IAS) for Turkey was prepared based on the nine sectors’ Approximation strategies. This project was completed in April 2004.

“Environmental Heavy Cost Investment Planning Project” The project was launched in the framework of 2002 European Union Financial Cooperation Programme and finished by the end of 2005. Among others, the consequences of implementation of the air quality framework directive were evaluated and estimated in terms of necessary investment costs. The inception report for the project has already been prepared.

EU-Twinning Project Air Quality, Chemicals, Waste, Component 1: “Air Quality” was completed in 2006. The main aims of the project were reached. The transpositions of the Council-Directive 96/62/EC (Air Quality Framework Directive) including the 4 Daughter Directives and the Directive 2001/80/ EC (Large Combustion Plant Directive) into Turkish Legislation were drafted and agreed. Under the Project the following studies were completed.

- Preparation of Draft regulation on ambient air quality assessment and management
- Preparation of Draft regulation on large combustion plants
- Designation of zones and agglomerations with a view of the ambient air quality assessment
- Determination of the number of stations necessary and regional network structure
- Preparation of a Strategy for the implementation and enforcement of the regulation on air quality assessment and management in Turkey
- Preparation of a Strategy paper on the implementation of the large combustion plant directive
- Calculating the cost of ambient air quality monitoring
- Use of EURAD model for air quality forecast

The MATRA programme “IPPC Implementation in Turkey” was started in January 2006. The project purpose is to assist the Turkish Ministry of Environment and Forestry with the implementation of the IPPC Directive. More specifically, the project should lead to the preparation of a roadmap towards full implementation of the IPPC Directive in Turkey. The project completed in January 2008.

Support for Implementation of IPPC Directive in Turkey project was accepted in IPA-2008 Programme and is expected to start at the end of the 2009.

Improvement Emission Control Project that aims to transpose 2001/81/EC National Emission Ceiling Directive (NEC) which also sets emission ceilings for VOCs was accepted in IPA-2008 Programme and is expected to start at the end of the 2009.

3.7 Lessons learned

All projects mentioned above have highlighted a number of weaknesses such as;

- Weakness in collection of data and the transformation of data into an inventory,
- Absence of adequate planning system and sectoral strategies,
- Weakness in demands analysis,
- Absence of methodology for data collection and use of this data in a correct manner,

Currently, it is clear that effective implementation of the air quality strategy and environmental legal programme will require;

- Reliable data collection system,
- Effective system and institutions for monitoring and reporting of emissions and environmental quality and inspection,
- Procedures and tools for raising environmental awareness of industry and public in order to secure understanding, cooperation and support of environmental measures,
- Institution procedures facilitating public participation and environmental management,
- Administrative and judicial resource relation to (actual and threatened),
- Violation and Environment Law accompanied by appropriate systems of adequate and dissuasive fines and penalties including provision for liability under criminal jurisdiction for serious violations ,
- Training of staff and susceptible sector of society,
- Adequate funding of implementing and enforcement institutions

All the above remedial actions to avoid identified problems have been addressed in the project design and need to be addressed during the project implementation.

4. Indicative Budget (amounts in EUR)

			SOURCES OF FUNDING										
			TOTAL EXP.RE	TOTAL PUBLIC EXP.RE	IPA COMMUNITY CONTRIBUTION		NATIONAL PUBLIC CONTRIBUTION						PRIVATE CONTRIBUTION
ACTIVITIES	IB (1)	INV (1)	EUR (a)=(b)+(e)	EUR (b)=(c)+(d)	EUR (c)	% (2)	Total EUR (d)=(x)+(y)+(z)	% (2)	Central EUR (x)	Regional/ Local EUR (y)	IFIs EUR (z)	EUR (e)	% (3)
Twining contract	X	–	1.200.000	1.200.000	1.140.000	95	60.000	5	60.000				–
Technical Assistance contract	X	–	1.650.000	1.650.000	1.485.000	90	165.000	10	165.000				–
TOTAL IB			2.850.000	2.850.000	2.625.000		225.000						
TOTAL INV													
TOTAL PROJECT			2.850.000	2.850.000	2.625.000		225.000						

NOTE: DO NOT MIX IB AND INV IN THE SAME ACTIVITY ROW. USE SEPARATE ROW

Amounts net of VAT

(1) In the Activity row use "X" to identify whether IB or INV

(2) Expressed in % of the **Public** Expenditure (column (b))

(3) Expressed in % of the **Total** Expenditure (column (a))

5. Indicative Implementation Schedule (periods broken down per quarter)

Contracts	Start of Tendering	Signature of contract	Project Completion
Twinning Contract (24months)	2010 I	2010 IV	2012 IV
TA Contract (13 months)	2010 I	2010 IV	2012 I

All projects should in principle be ready for tendering in the 1ST Quarter following the signature of the FA

6. Cross cutting issues (where applicable)

6.1 Equal Opportunity

The project is running on the environmental field, rehabilitation of which increases life standards, and chance of every party for taking part in the society. Environmental administration in Turkey is one of the sectors with the highest rate of women employed. Thus, the project is believed to have quite a positive impact on equal opportunity creation.

6.2 Environment

Industrial VOC emissions consist of the important share of the environmental pollution and cause ground level ozone pollution. Project purpose is to transpose three Directives that aims to control Volatile Organic Compounds arise from different industrial activities into national legislation. When project purpose is achieved, in Turkey better environmental protection performance in the sense of industrial pollution control will have been attained and air quality will improve.

6.3 Minorities

“According to the Turkish Constitutional System, the word minorities encompasses only groups of persons defined and recognized as such on the basis of multilateral or bilateral instruments to which Turkey is a party”.

This project has no negative impact on minority and vulnerable groups. Environmentally vulnerable groups are the parties who are most affected by the increase of environmental pollution and degradation of environmental quality. The project aims to increase environmental quality and will have highly positive effect on the life quality of vulnerable groups such as elderly, youngsters and less mobile groups.

ANNEXES

- 1- Log frame in Standard Format
- 2- Amounts contracted and Disbursed per Quarter over the full duration of Programme
- 3- Description of Institutional Framework
- 4 - Reference to laws, regulations and strategic documents:
 - Reference list of relevant laws and regulations
 - Reference to AP /NPAA / EP / SAA
 - Reference to MIPD
 - Reference to National Development Plan
 - Reference to national / sector investment plans
- 5- Details per EU funded contract (*) where applicable:
 - For *TA contracts*: account of tasks expected from the contractor
 - For *twinning covenants*: account of tasks expected from the team leader, resident twinning advisor and short term experts
 - For *grants schemes*: account of components of the schemes
 - For *investment contracts*: reference list of feasibility study as well as technical specifications and cost price schedule + section to be filled in on investment criteria (**)
 - For *works contracts*: reference list of feasibility study for the *constructing works* part of the contract as well as a section on investment criteria (**); account of services to be carried out for the *service part* of the contract

(*) non standard aspects (in case of derogation to PRAG) also to be specified

(**) section on investment criteria (applicable to all infrastructure contracts and constructing works):

- Rate of return
- Co financing
- compliance with state aids provisions
- Ownership of assets (current and after project completion)

ABBREVIATIONS

CFCU	Central Finance and Contracting Unit
EC	European Commission

EU	European Union
IPPC	Integrated Pollution Prevention and Control
LCP	Large Combustion Plant
MATRA	Funding Program of the Government of the Netherlands for Candidate Countries
MoEF	Ministry of Environment and Forestry
EMRA	Energy Market Regulatory Authority
VOCs	Volatile Organic Compounds
TUIK	Turkish Statistical Institute
UÇES	EU Integrated Environmental Approximation Strategy
TIS	Turkish Standards Institute
MoIT	Ministry of Industry and Trade
MoT	Ministry of Transport

ANNEX 1: Logical framework matrix in standard format

LOGFRAME PLANNING MATRIX FOR CONTROL OF INDUSTRIAL VOLATILE ORGANIC COMPOUNDS IN TURKEY	Programme name and number	IPA-1 2009 PIS 24&25
	Contracting period expires : 2 years after the DATE signature of the Financing Agreement	Disbursement period expires: 3 years after the last date of the contracting deadline.
	Total budget: TW:1.200.000 TA: 1.650.000	IPA budget: TW: 1.140.000 TA:1.485.000

Overall objective	Objectively verifiable indicators	Sources of Verification	Assumptions
Control of Volatile Organic Compound (VOC) emissions to improve environmental quality in Turkey and to reduce or prevent the potential risks to human health and to prevent ground level ozone pollution.	Decline in the mass flow rates of industrial volatile organic compound emissions was obtained by the application of the implementation plan.	Emission reports of related sectors	
Project purpose	Objectively verifiable indicators	Sources of Verification	Assumptions
Develop administrative and legal conditions and structures to harmonise and implement the three EU Volatile Organic Compound Directives (Storage 94/63/EC Solvents-99/13/EC, Paints-2004/42/EC)	Draft legal legislation and implementation plans have been prepared by the end of the project.	Commission progress reports on Turkey. Project progress monitoring reports. Draft legislation Implementation plans (with roles and responsibilities)	

Results	Objectively verifiable indicators	Sources of Verification	Assumptions
1. Draft legislation was prepared by the end of the project.	Draft legislations for transposition of the 94/63/EC, 2004/42/EC and 99/13/EC Directives has been prepared by the end of the project.	<ul style="list-style-type: none"> • Draft legislation and Table of Concordance of the drafts. • Project progress monitoring reports • Commission progress reports on Turkey. 	<ul style="list-style-type: none"> - Other Beneficiaries interested in the project and participated all of the workshops. - All relevant stakeholders willing to cooperate and open to information exchange.
2. Implementation plan was prepared.	<p>Inventory of facilities in the scope of Directives (94/63/EC& 2004/42/EC) or in the selected sectors for the Directive 99/13/EC have been established by the end of the project</p> <p>Realistic time periods for full implementation have been determined by cost analysis and RIA report by the end of the project</p>	<ul style="list-style-type: none"> • Inventory report • RIA report • Project progress monitoring reports 	<ul style="list-style-type: none"> - Effective participation of competent authorities - Stakeholders interested in the project and shared accurate data during inventory preparation.
3. Administration and technical capacity to roll-out implementation plan was developed.	<p>Agreed document on required institutional and technical capacities of competent authorities has been prepared by the end of the project.</p> <p>At least 3 training seminars and 3 study visits were made by the end of the project The guidelines prepared to help the stakeholders</p>	<ul style="list-style-type: none"> • Agreed document • Participant certificates and/or signature list • Education documents 	<p>Full attention and participation of related institutions</p> <p>Contents of training was satisfactory</p>

Activities	Means	Costs	Assumptions
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<p>1.1 Legal and institutional assessment report for the three VOC Directives was prepared.</p> <p>* Kick of meeting</p> <p>* 1 workshop with 50 participant for 4 days</p>	TW	<p>TW: 1.2 M € TA: 1.65 M € Total Cost: 2.85 M € IPA Budget : 2.625 M €</p>		
<p>1.2 Legal gap analysis was made for the three Directives.</p> <p>* 1 workshop with 50 participant for 4 days</p>	TW			
<p>1.3 Roles and responsibilities of competent authorities together with coordination strategies for implementation of 94/63/EC was determined.</p> <p>- 1 workshop with 25 participant for 1 day</p>	TW			
<p>1.4 Benchmarking between Turkey and Member States regarding transposition and implementation structures for all three directives.</p> <p>*2 study visits with 15 participant for 3 days.</p>	TW			
<p>1.5 Information exchange with Member State's standards for paint criteria in the scope of Paints Directive and drafting of paint standards</p> <p>*2 meetings with 10 participant for 3 days.</p>	TW			
<p>1.6 Preparation of draft legislation proposals for transposition of three Directives and guidelines for stakeholders.</p>	TW			
<p>2.1 Establishment of an inventory and evaluation of compliance to the three Directives. <u>94/63/EC</u></p> <p>- For the scope of Directive.</p> <p>- Establishment of a database that ensures data entry, storage and processing.</p> <p><u>99/13/EC&2004/42/EC</u></p> <p>- For selected sectors within the Solvents Directive and paint sector that mentioned in the Paints Directive.</p> <p>* 2 seminars with 100 participants at the beginning and the end of inventory preparation.</p> <p>*1 site visit with 15 participants.</p>	TA			

Activities	Means	Costs	Assumptions
<p>2.2 Assessment of implementation costs of three Directives. <u>94/63/EC</u> for various scenarios. - common vapor recovery units for agglomerated terminals -different vapor recovery techniques, etc. <u>99/13/EC&2004/42/EC</u> for selected sectors within the Solvents Directive and paint sector that mentioned in the Paints Directive.</p>	TA		
<p>2.3 Regulatory impact analysis for three VOC Directives was made using inventory and cost analysis. * 1 training on RIA with 30 participants for 3 days. * 1 seminar with 100 participants at the end of RIA.</p>	TW		
<p>2.4 Implementation plan was prepared.</p>	TW		
<p>3.1 Institutional structure and capacity needs assessment studies was conducted.</p>	TW		
<p>3.2 Training according to results of needs assessment studies. - the technical requirements of the three Directives. * 1 training with 100 participants for 3 days. - best available techniques about petroleum storage and API standards referred in the Directive <u>94/63/EC</u>. * 1 training with 25 participants for 3 days. - best available techniques in the IPPC BREF's linked to VOC related activities referred in the Directives <u>99/13/EC</u> and <u>2004/42/EC</u>. * 1 training with 50 participants for 3 days.</p>	TW		
<p>3.3 Study visit to analyze related techniques with three Directives and technical implementations of the Directives in different EU-Member States. <u>94/63/EC</u> Technical requirements of the Directive such as Stage 1&2 vapor recovery system and bottom loading operations were need to analyzed where these techniques fully implemented by 1 study visit with 15 participants for 4 days, <u>99/13/EC&2004/42/EC</u> 1 study visit with 15 participants for 4 days</p>	TW		

<p>3.4 Technical requirements of the Directive 94/63/EC and best available techniques were studied with relevant sector in workshops and site-visits.</p> <p>* 2 workshops with 50 participants from all stakeholders for 2 days</p> <p>* 1 site-visits with 15 participants for 3 days were made.</p>	TW		
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Pre conditions