Horizontal Component

1. Basic information

1.2 Title: Capacity Building in Horizontal Sector (INSPIRE and

Liability Directive)

1.3 Sector Environment and Climate Change

1.4 Location: Turkey

Implementing arrangements:

1.5 Implementing Agency: CFCU

The Central Finance and Contracts Unit (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. The contact details of the CFCU Director are given below.

Mr. Muhsin ALTUN (PAO-CFCU Director)

Central Finance and Contracts Unit

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TURKEY

1.6 Beneficiary (including details of SPO):

Beneficiary: Ministry of Environment and Urbanization

Sedat KADIOĞLU

Deputy Undersecretary of MoEU

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Financing:

1.7 Overall cost (VAT excluded)¹: 5 480 000 EUR

1.8 EU contribution: 4 932 000 EUR

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

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)

- 1.10 Final date for execution of contracts: 3 years following the final date for contracting
- 1.11 Final date for disbursements: 1 year following the final date for execution of contracts

2. Overall Objective and Project Purpose

2.1 Overall Objective:

To enhance the protection of environment by preventing or remedying environmental damage and by fostering exchange of spatial information between institutions

2.2 Project purpose:

Main purpose of the project is to strengthen the institutional, technical and legislative framework for effective implementation of the EU INSPIRE and Environmental Liability directives and establishment of strong administrative and technical capacity at all levels.

2.3 Link with AP/NPAA / EP/ SAA/ Progress Report

Accession Partnership (AP) priority

Turkey 2008 AP document (2008/157/EC), under the subtitle of Environment indicates "continue transposition, implementation and enforcement of the acquis, in particular horizontal and framework legislation ..." INSPIRE and Environmental Liability Directives (ELD) are the most important Directives under horizontal legislation and this project will be the first step in terms of transposition studies of these Directives.

Turkey 2011 Progress Report, Environment Spatial Data Infrastructure in Turkey State of Play in 2011

With reference to the Report on State of Play, several initiatives were taken to develop components of the NSDI and to implement INSPIRE in Turkey. Despite the clear progress, there are still several persisting problems in the field of geographical information such as lack of coordination among relevant institutions, no standardization with regard to the reference system, the data quality and duplication, and exchange of data.

In addition to the above issues, the institutional reorganization was a significant milestone of the year 2011. That is to say, the Ministry of Environment and Urbanization was established on 4.7.2011 by the decree law no. 644 as a result of the unification of the former Ministry of Public Works & Settlement and Ministry of Environment & Forestry. The Ministry of Environment and Urbanization is the responsible for the implementation of the INSPIRE Directive at present. Nevertheless, the Ministry needs **at least one** year to draw a road map for Turkey to implement relevant INSPIRE standards by considering institutional reorganization of not only its own but also some other ministries in Turkey. The Ministry will host the INSPIRE 2012 Conference in 23-27 June 2012 in Istanbul. The Conference will also be another significant milestone to mobilize resources of Turkey with a view to adapt to the INSPIRE standards.

NPAA priority

According to Turkey National Programme on Commitment of Acquis Communautaire, preparation of regulations for harmonisation of regulations of Spatial Information Infrastructure in Turkey by taking into account the INSPIRE Directive, establishment of national regulatory authority in this area and national spatial planning data\information infrastructure are responsibilities of Ministry of Environment and Urbanization. By taking the studies performed in European Union and in our country, Ministry of Environment and Urbanization targets implementation of INSPIRE Directive in our country with the participation of the responsible parties for the relevant layers.

The Turkish Government approved National Programme published in Official Gazette of the Republic of Turkey dated 31 December 2008 numbered 27097(Bis. 5) for the Adoptation of the Acquis (NPAA). Some of the main priorities within the NPAA includes the following issues for 2009 and 2010.

- Implementation of the metadata service and the other INSPIRE components, integration of the data into the INSPIRE database (Directive No. 2007/2/EC)
- Training on the dissemination of the use of Geographical Information System (Directive No. 2007/2/EC)
- Training on the implementation of European Infrastructure for Spatial Information (INSPIRE) (Directive No. 2007/2/EC)
- Training on remote sensing studies and projects (Directive No. 2007/2/EC)
- Development of the INSPIRE based models to monitor the environmental data and variables (Directive No. 2007/2/EC)
- Consultancy for adaptation of the implementation of European infrastructure on spatial information (Directive No. 2007/2/EC)

According to the National Program, the following activities are planned to be realized for proper implementation of INSPIRE Directive:

- Following the results of INSPIRE applications in EU Member States,
- Preparation of legislation of INSPIRE Directive in Turkey,
- Preparation of technical infrastructure studies of INSPIRE Directive in Turkey,
- Following the implementation of TEIEN (Establishment of a Turkish Environmental Information Exchange Network) Project,
- Ensuring all the institutions and organizations responsible for the layers published in the Appendix of Directive.

In National Program it is also stated that "It is aimed that more efficient environmental decisions will be able to be made on the basis of important analyses in the environmental issues by fulfilling the calculation, application, monitoring, and assessment functions on the interfaces to be developed on the basis of spatial information system which will be established by organizing positional data (especially environmental data) which has been synchronized in line with the INSPIRE Directive and which has been standardized at a high quality."

As stated above according to National Program, two years of transposition period was envisaged. The first year of this process (2009) was assigned to training and infrastructure studies and development of relevant legislation. In the second year (2010) implementation of technical infrastructure according to prepared legislation in line with the INSPIRE Directive is aimed to be achieved.

The date of transposition and implementation of INSPIRE Directive is foreseen as 2009 and 2011, respectively. However, the date is postponed to 2014.

In the National Programme for the Adoption of the Acquis (NPAA) 2008; under the heading "Priority.27.3" it is stated that besides strengthening the administrative capacity, continuing transposition and implementation of the acquis like horizontal legislation especially including transboundary issues as environmental impact assessment, framework legislation, international environmental conventions, nature protection, water quality, chemicals, industrial pollution, risk management and waste management.

Under the heading "27.3.1 Horizontal Legislation" Draft Turkish Legislation is stated as "Law on Environmental Liability" the scope take place as "According to polluter pays principle holding the operators financially liable to remedy the damage whose activities cause environmental damage, bringing the existing

relevant provisions in Turkish legislation together and to have new provisions. The publishing date is foreseen after 2011.

2.4 Link with MIPD

In 2011-2013 MIPD document indicators are defined to measure developments, one of them is directly related to the transposition and enhancing implementation of horizontal legislation, i.e.

to achieve relevant sector indicator: "Transposition and enhancing implementation of framework and horizontal legislation and establishment of strong administrative capacity at all levels."

2.5 Link with National Development Plan (where applicable)

Ninth Development Plan (2007-2013) designed as the basic strategy document that would contribute to the EU accession process approved by Turkish Grand National Assembly on 28.06.2006 with Law No: 877. National Development Plan (NDP) is the fundamental policy document that sets forth the transformations Turkey will realise in economic, social and cultural areas in an integrated approach. As a compound policy document NDP focuses basic goals and priorities. Hence, either INSPIRE Directive or ELD is not directly addressed. However, "e-government implementations" are among the key targets indicated in the document.

Moreover; in the Ninth Development Plan (2007-2013) under the "7.1.6. Protecting the Environment and Improving the Urban Infrastructure" it is stated that, in the stages of investment, production and consumption in all sectors, the instruments, which consider the principle of the polluter and user pay, will be effectively used. In the scope of EU harmonization, during the preparation of legal regulations determining the environmental standards and management, country conditions and efficiency in public administration will be considered. Also in the same section it is emphasized that activities for researching, protecting and utilizing the biological diversity and genetic resources in Turkey and for transforming them into economic value will be accelerated. Some further links are mentioned below:

- 10.Natural resources, cultural assets and the environment will be protected considering the future generations as well.
- 52. The necessary administrative capacity will be set up for the effective implementation of the legal arrangements for harmonization and the problems arising from implementation will be identified and eliminated
- 54. Effective measures will be taken in order to educate the work force required for new duties and responsibilities. In this context, the number of qualified public sector personnel will be increased and necessary steps will be taken for continuous training of the existing personnel.
- 454. Fulfilment of international obligations will be realized in the framework of the principle of sustainable development and the principle of common but differentiated responsibility.
- 474. Training and informing activities for public will be realized to increase the environmental consciousness.

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

In Negotiating Position Document transposition of INSPIRE Directive is one of the short-term priorities since it is stated that "In line with the requirements of the INSPIRE Directive and needs of Turkey, a draft By-law on the Establishment of Turkish Spatial Information Infrastructure will be prepared in 2009, and it is envisaged to be adopted and implemented by 2011."

In this respect implementation of this project is of crucial importance to catch the time limit set in the Directive and also in the Negotiating Position Document.

According to the above mentioned document it is planned to prepare a "By-law on the Establishment of Turkish Spatial Information Infrastructure" on the requirements of Infrastructure for

Spatial Information in the European Community (INSPIRE) Directive (2007/2/EC) and needs of Turkey in 2009.

Related to ELD, in the Negotiation Position Document, it is stated that "For full harmonisation in this area, various provisions which already exist in Turkish legislation will need to be combined, and additional provisions concerning detection and assessment procedures of environmental damage / damage risk, and procedures of determination of prevention / removal / betterment of detected damage / damage risk will need to be added in the legislation. In this regard, legislative studies are envisaged to be completed following a project planned to be initiated in 2011 under IPA (Instrument for Pre-Accession) Programme or national budget, which will include legislation gap analysis, Regulatory Impact Assessment and other needs for transposition of this Directive and implementation. Full harmonisation is envisaged to be achieved by the end of 2018 depending on the project outcomes."

Republic of Turkey has prepared "Plan for Setting up Necessary Administrative Capacities at National, Regional and Local Level and Required Financial Resources for Implementing the Environmental Acquis Opening Benchmarks in Chapter 27" in September 2009.

Strategy Paper:

Environmental Liability Directive takes place in the Plan for Setting up Necessary Administrative Capacities at National, Regional and Local Level and Required Financial Resources for Implementing the Environmental Acquis and it is stated that "During the studies for transposition of Environmental Liability Directive, various provisions which already exist in our legislation will need to be combined, and additional provisions concerning detection and assessment procedures of environmental damage / damage risk, and procedures of determination of prevention / removal / betterment of detected damage / damage risk will need to be added in the legislation. An accurate assessment will be able to be made after completion of regulatory impact analysis. A project is planned to be initiated after 2011, which will include legislation gap analysis, RIA and other needs for transposition."

3. Description of project

3.1 Background and justification:

Component 1 INSPIRE

Geospatial information is a category that benefits most from the technological progress towards more processing power, storage and transmission. OGC (Open Geospatial Consortium) is dealing with the open standards for modelling, storing, publishing, transforming, discovering geospatial information and its related services for a long period of time. OGC standards are widely accepted in the geospatial community such that most of the standards are converted (and still being converted) to ISO (International Standards Organization) standards due to their vendor neutral, format unspecific, service oriented approach. Therefore, those widely accepted standards are becoming official international standards and current trend indicates that this process will go on in the near future.

European Union has caught the train from the beginning by starting implementation of INSPIRE Directive. The main idea behind INSPIRE is to increase interoperability and data sharing among interrelated institutions. The technical infrastructure proposed is parallel with the studies of OGC and with the standards of ISO about geospatial information. INSPIRE is a long-lasting approach for the proper and sustainable management of spatial information with a roadmap very clear from the beginning. The main architecture, infrastructure, services proposed and their interrelationships have to be understood correctly.

According to INSPIRE Roadmap (published on http://inspire.jrc.ec.europa.eu/index.cfm/pageid/44), a long-lasting implementation plan is proposed by the Commission; in this project, which can be called as the first part, MoEU is willing to concentrate on the steps covered under period 2007-2011 (already implemented part at EU level) like preparation of draft INSPIRE legislation, preparation of Metadata Regulation for Turkey, preparation of INSPIRE Regulation on Network Services and a prototype

implementation for the services described in INSPIRE Directive. In this project, also a Strategic Plan and an Implementation Plan is to be prepared for the 2012-2019 period described in INSPIRE Roadmap. This project is the first part and the second part will cover the implementation steps for 2012-2019 period.

Ministry has also completed an important project to establish an electronic exchange network to share environmental data among related institutions. TEIEN is active and accessible from the 13 stakeholders and 81 provinces to any authorised user. During conducting TEIEN project we have also realised the importance of interoperability when dealing with spatial data. There is no problem to share tabular data but if spatial data is concerned the scale and standards becomes very important. By implementing INSPIRE, interoperability of layers from different institutions will be achieved and in case of lack of data the preparation of relevant layers will be completed.

Turkish MoEU (Ministry of Environment and Urbanization) is following the studies performed under INSPIRE from the first day and plans to take its part parallel to the roadmap proposed. Due to the geographic location and size, flora / fauna available, wide forests, rich resources of our country, Turkey has to manage its environmental data under the responsibility of MoEU in the most effective manner. Considering the options of interoperability with other countries and among national institutions, INSPIRE is the leading approach for accomplishing this mission.

Before stepping into such an important level, all the related decision makers and top-level managers have to be convinced and all the technical team responsible for the operation of such a system have to be trained. This is the step where this project fits into with proposed seminars, training programs, study visits, workshops, impact analyses, regulatory studies and prototype implementation with real environmental information selected from annexes of INSPIRE Directive. The level of understanding and vision of decision makers and top-level managers will be increased to be aware of the benefits INSPIRE shall bring into the theatre via seminars, conference attendances and study visits. Technical team know-how, experience and confidence to take the responsibility of the operating system will be moved to the peak via seminars, conference attendances, study visits and workshops. The resulting analyses reports such as impact analysis, cost-benefit analysis and regulatory studies will be the permanent products gained to be transferred into institutional knowledge base to keep the way lightened for the next generations.

The capacity building to be achieved by this project will be the pushing power for the next steps in the way to implement INSPIRE. The trainees of this project will be the trainers of the next generations for sustainable environmental information management within MoEU and will contribute the development of other institutions in the positive direction.

Besides all these outputs of this project, the actual and intangible effects of implementing INSPIRE in MoEU in the long term shall be forming more effective environmental policies; solving the problems regarding the availability, organisation, accessibility and sharing of geo-data more effectively; monitoring the environmental indicators more easily; and increasing interoperability among different studies together with reducing duplication of efforts.

This component is formulated as Technical Assistance since it requires not only preparation of a draft legislation or Regulatory Impact Assessment but also a serious software development for prototype implementation and data preparation for 5 Themes listed in Annexes of INSPIRE Directive. If these results of the project are taken into account, it is obvious that a Technical Assistance meets the requirements of this project better.

Component 2 ELD

Environmental Liability Directive establishes a framework liability based on polluter pays principle, with a view to preventing and remedying environmental damage. Under the terms of the Directive, environmental damage is defined as: direct or indirect damage to the aquatic environment covered by Community water management legislation, direct or indirect damage to species and natural habitats protected at Community level by the 1979 "Birds" Directive or by the 1992 "Habitats" Directive, direct or indirect contamination of the land which creates a significant risk to human health. The ELD imposes either a strict or fault-based liability - depending on the type of activity involved- for damage to protected species and habitats, for contamination of land and for damage to waters covered by the Water Framework Directive.

One of the primary objectives of the ELD is to remediate damage to the natural resources covered. The Directive, therefore, emphasizes remediation and chooses the costs of remediation measures as the primary and preferred method to assess damages. Also costs of preventing and remedying damage take place in the Directive.

In this project Ministry of Justice and Ministry of Forestry and Water Affairs are the main stakeholders. In the context of responsibilities related to Water Framework Directive, Bird and Habitat Directives described in Decree Law No:645, Ministry of Forestry and Water Affairs will be an important stakeholder also.

Though there are several provisions about environmental liability in Turkish Legislation, Environmental Liability Directive is not fully transposed yet. Not only for full transposition but also for full implementation, several issues need to be clarified. The key problems are:

- 1- To discuss the legal and optional issues in transposing specific articles of the directive.
- 2- According to the option preferred, both for authorities and operators identification of costs and benefits is needed. Also assessment and methodology is important.
 - 3- It is necessary to reveal which sectors are most likely to be affected by percentage.
- 4- Though baseline conditions and thresholds differ to case to case, information on options for calculating baselines will be useful.
- 5- Damage Assessment approaches should be clarified. A single approach or a combination of several approaches.
- 6- Remediation assessment in the context of complementary, compensatory and primary remediation measures. Which method (resource to resource, service to service, value to value) should be preferred under the conditions of our country?
- 7- Relevant to soil pollution, according to Annex II-2, risk assessment procedures should also be clarified.
- 8- Operators referred with this directive need to be informed about the additional obligations they will be faced by the directive.

Since Directive 2004/35/EC includes technical requirements that are mentioned above, Regulatory Impact Assessment of the directive will be guidance for transposition and implementation. Directive and the Annexes must be carefully analyzed due to its technical, economical aspects so it is decided to propose a project. The problems stated earlier can be solved by this project. Also this project is foreseen as a first step to our ultimate goal which is full implementation of ELD in Turkey. With this first project we aim to achieve carrying out a legislation gap analysis and to prepare draft legislation and necessary roadmap and manuals for implementation. After completing this project another project is to be formulated to take the necessary actions for full implementation of directive

By this project the following problems will be solved;

- Regulatory Impact Assessment (RIA) can be made
- "Legislation Gap Analysis" to be carried out in order to determine the problems in legislation
- Costs and benefits can be identified
- Damage Assessment approaches; remediation assessment methods, risk assessment methods can be clarified, taking into consideration the directives closely relevant
- Operators referred in the Directive, staff of the Ministry of Environment and Urbanization (both central and province) and relevant stakeholder can be trained,
 - The member states' experiences can be discussed
 - Draft legislation and a road map for implementation of the Directive can be prepared
- 3.2 Assessment of project impact, catalytic effect, sustainability and cross border impact (where applicable)

Project Impact

The project is expected to have the following impact:

- Increasing the Awareness on the INSPIRE Directive and ELD among the relevant institutions,
- More effective environmental policies is formed using standardised spatial data,
- Establishment of interoperable systems in the institutions based on the introduced standardization,
- Establishment of a communication channel among private sector organizations, MoEU, other relevant governmental institutions and NGOs and increasing cooperation and collaborations among them,
- Increasing the capacity in sharing information and data among relevant institutions,
- Increasing the capacity in high level environmental protection,
- Decreasing the investment costs and increasing the standardization in Geographical Information System implementations in organizations.

Catalytic Effect

The catalytic effect of the Project is increasing the capacity of MoEU in INSPIRE Directive and increasing the awareness of MoEU; thereby continuing steps of the implementation of INSPIRE Directive is ensured. Main result of the implementation; "standardization of geo-data used/produced by institutions" ensures an interoperable system idea among governmental institutions, private sector organizations, NGOs and other relevant bodies. Natural result of increasing interoperability among the relevant parties increases the cooperation and collaboration among each other that reduces repetition of data produced by relevant parties and access to secure and reliable data online. As a result of increased cooperation and collaboration, relevant parties reduces their investment costs on GIS based systems, accessing data, using resources and relevant parties increases their quality of work and service.

By means of increasing the awareness of INSPIRE Directive and the standards introduced by the Directive, governmental organizations are expected to restructure their Geographical Information Systems and share their data with each other. By means of shared data and information among the relevant parties, data of each relevant party is expected to be served to service of other parties which reduces analysis costs/duration, access to data, field analysis and increase capacity of organizations in almost every sector like agriculture, health, transportation, industry and energy so that increase the productivity to reach optimal planning results and decisions.

As Environmental Liability Directive is closely related with Water Framework Directive, Birds and Habitat Directives, all achievements in this project like draft legislation, trainings and seminars will positively affect all these sectors directly i.e. with this project damage assessment, remediation assessment, risk assessment methods will be developed and these will be serve to implementation. Also public awareness will be raised via seminars and trainings.

Sustainability

Most of the trainings are planned to be "Training of Trainers" so that they can transfer their knowledge to the inexperienced staff. Also, the reports and documentation of the project activities will be the guideline for the new comers.

Reports and documentation will be a guideline for the new comers

Prototype implementation will be ready for testing on pilot data sets

More focused and professional approach to INSPIRE via increased awareness and know-how

INSPIRE Directive requires participation and close collaboration of the other institutions and organizations, so during implementation of this project close collaboration of the related institutions will be provided. Main Beneficiary of the Component 1 is Ministry of Environment and Urbanization and the following institutions are the main stakeholders of the project:

- Ministry of Defence
- Ministry of Internal Affairs
- Ministry of Transport, Maritime Affairs and Communication

- Ministry of Energy and Natural Resources
- Ministry of Forestry and Water Affairs

Implementation of the Project will bring the standardization in sharing data, especially environmental data, and format and classification of the data, as well as the metadata infrastructures.

Main Beneficiary of Component 2 is Ministry of Environment and Urbanization and Ministry of Justice and Ministry of Forestry and Water Affairs are the main stakeholders. By the means of RIA report, draft legislation dissemination and trainings, both central and province organization of the MoEU will have information about Directive. Draft legislation, future roadmap and manuals will lead a proper implementation not only for MoEU but also other relevant institutions, such as Municipalities, Turkish Coast Guard Command which are delegated by monitoring and implementing the penalties according to the Environmental Law.

3.3 Results and measurable indicators:

Component 1 INSPIRE

Re	esults	Objectively Verifiable Indicators
1.	MoEU has increased its capacity to future implementation of the INSPIRE Directive	 Number of INSPIRE-capable administrative and technical staff in MoEU increased Preperation period of INSPIRE- compliant themes decreased through the trainings
2.	Raised awareness for related stakeholders and decision makers	 Number of INSPIRE-aware decision makers in stakeholders increased Stakeholders are aware of INSPIRE- compliant themes relevant to their study area
3.	More environmentally friendly land planning has developed in line with the EU spatial planning approach	 Related legislations and strategy document prepared or updated considering INSPIRE principles and roadmap Data Exchange Strategy constructed according to INSPIRE
		 Technical infrastructure is ready to serve spatial data in compliance with INSPIRE Spatial Data Inventory is prepared with metadata compliant to INSPIRE
		- Selected pilot themes from INSPIRE Annexes ready to be utilised in decision making

Component 2 ELD

Results	Objectively Verifiable Indicators
1. The institutional and technical capacity of	- Number of staff capable of implementing

Ministry of Environment and Urbanization and related stakeholders were defined and strengthened.	Environmental Liability Directive increased
Draft legislation is prepared to establish a framework of Environmental Liability	 Legislative, institutional and technical gap analyses are ready RIA study is ready Draft legislation and draft implementation plan are ready to implement
3. Increase of awareness of relevant stakeholders, especially the industry concerned, the NGOs concerned and Competent Authorities for the implementation of environmental liability.	 Analysis of the methods for Damage Assessment, Risk Assessment, Remediation Assessment are completed and the methods are defined. A roadmap is prepared
	 Competent authorities, relevant sectors are fully equipped and ready to fulfil the requirements of the legislation. Public is informed via internet website which is made operational

3.4 Activities:

Component 1 INSPIRE

Activity Set 1 Know-how and experience for administrative and technical staff increased

- 1.1. Training needs assessment was determined and a report was submitted to MoEU by Month 3.
- 1.2. A training programme was prepared and submitted to MoEU till the end of Month 4.
- 1.3. At least 15 trainings with 60 trainees were conducted according to the training programme by Month 18.
- 1.4. At least 2 seminars (on agreed subjects) with at least 100 participants were organized by Month 18.
- 1.5. Participation to INSPIRE Conference twice (during the project implementation period) with at least 10 participants was organized by Month 22.

Activity Set 2 Awareness for related major groups and decision makers raised

- 2.1. At least 2 seminars (on agreed subjects) with at least 100 participants were organized by Month 18.
- 2.2. At least 2 study visits with at least 10 visitors were organized by Month 18.
- 2.3. An internet website was operational by Month 3.

Activity Set 3.1 INSPIRE impact analyses are performed and related legislations / plans / reports are prepared

- 3.1.1. A legislation gap analysis is conducted and a report was submitted to MoEU by Month 6.
- 3.1.2. Draft legislation (By-Law for Directive transposition, Metadata Regulation, Regulation on Network Services) was prepared by Month 6.
- 3.1.3. A MoU among related institutions was prepared by Month 6.
- 3.1.4. Data Exchange Strategy was prepared by Month 8.
- 3.1.5. Implementation Plan and Methodology was prepared by Month 8.
- 3.1.6. Regulation Impact Analysis Report was prepared by Month 8.
- 3.1.7. Cost-Benefit Analysis Report was prepared by Month 12.
- 3.1.8. A requirement analysis was performed and reported for the proper implementation of INSPIRE Directive for required software and hardware by Month 12.

Activity Set 3.2 Prototype implementation carried out

- 3.2.1.Services (WMS, WFS, WCS, CSW, Meteorology Services, described in INSPIRE Directive) were developed and installed by Month 18.
- 3.2.2.Metadata Editor application was developed and installed by Month 18.
- 3.2.3. Client application was developed and installed by Month 18.
- 3.2.4.Detailed Design Report was prepared till the end of 18th month.
- 3.2.5.Operations Manual was prepared till the end of 18th month.
- 3.2.6.User's Manual was prepared till the end of 18th month.
- 3.2.7. Training and advertorial materials were prepared till the end of 18th month of the project implementation
- 3.2.8. User trainings were organized till the end of 18th month of the project implementation
- 3.2.9. Test Plan and Test Scenarios were prepared till the end of 18th month of the project implementation
- 3.2.10.Test Results Report for test scenarios, performance tests and stress tests was prepared till the end of 18th month of the project implementation

Activity Set 3.3 Spatial data inventory in the context of INSPIRE prepared

- 3.3.1. Analyses were conducted with related stakeholders in the context of INSPIRE Directive by Month 5.
- 3.3.2. Spatial Data Inventory Report and related digital products were prepared till the end of Month 6.

Activity Set 3.4 Pilot theme implementations on "Environmental Monitoring Facilities", "Area Management / Restriction / Regulation Zones and Reporting Units" and "Meteorological Geographical Features" (all in Annex III of INSPIRE) are carried out on the prototype implementation

- 3.4.1.Spatial datasets on "Environmental Monitoring Facilities" were transferred to the prototype implementation environment completely (with discovery, view, download capabilities) till the end of Month 22.
- 3.4.2.Spatial datasets on "Area Management / Restriction / Regulation Zones and Reporting Units" were transferred to the prototype implementation environment completely (with discovery, view and download capabilities) till the end of Month 22. implementation
- 3.4.3. Spatial datasets on "Meteorological Geographical Features" were transferred to the prototype implementation environment completely (with discovery, view, download capabilities) till the end of Month 22.
- 3.4.4.Spatial datasets on "Protected Sites" were transferred to the prototype implementation environment completely (with discovery, view, download capabilities) till the end of Month 22.
- 3.4.5. Spatial datasets on "Land Cover" were transferred to the prototype implementation environment completely (with discovery, view, download capabilities) till the end of Month 22.

Component 2 ELD

Activity Set 1 The institutional and technical capacity of Ministry of Environment and Urbanization and related Stakeholders were defined and strengthened.

- 1.1. Training needs assessment performed and training needs assessment report prepared by Month 6.
- 1.2. Training and public awareness materials (Documents and Leaflets, etc.) were prepared by Month 8.
- 1.3. Five (5) workshops with 30 participants in each workshop (The workshop subjects are Roadmap, Draft Legislation, defining criteria for implementation)
- 1.4. 5 seminars with 100 participants (What is ELD, central and local admin units of MoEU, related stakeholders, relevant sector representatives)
- 1.5. 2 study visits with 10 participants were conducted by Month 18 (best transposition practices in EU, implementation in EU countries)
- 1.6. 5-day training with 15 participants (Project Cycle Management Training for the core project team)

Activity Set 2 Draft legislation to harmonise the Environmental Liability Directive is prepared.

- 2.1.Gap Analysis to determine the legislative, institutional and technical gaps conducted by Month 6. (Determination of already existing and missing provisions on environmental liability in Turkish legislation, defining institutional and technical needs)
- 2.2. RIA study conducted and a report is prepared by Month 9.(Discussing the legal and optional issues in transposing specific articles of the directive, identification of costs and benefits)
- 2.3. Draft legislation and draft implementation plan are prepared by Month 18

Activity Set 3.1 Manuals on Damage Assessment, Risk Assessment and Remediation Assessment including the approach methods prepared

- 3.1.1. Damage assessment and risk assessment studies, remediation assessment methods studies are undertaken by Month 12.
- 3.1.2. Analysis of the methods for Damage Assessment completed and manuals are prepared by Month 18.
- 3.1.3. Analysis of the methods for Risk Assessment completed and manuals are prepared by Month 18.
- 3.1.4. Analysis of the methods for Remediation Assessment and manuals are prepared completed by Month 18.
- 3.1.5.A roadmap prepared for the proper implementation of ELD by Month 18.

Activity Set 3.2 Awareness for related groups and decision makers raised

- 3.2.1. Two seminars on Dissemination of Roadmap and Draft Legislation up to 100 participants are organized till the end of Month 20. (One of the seminars for MoEU and other relevant public institutions, the other is for industry concerned, the NGO's concerned)
- 3.2.2.At least 1 study visit with at least 10 visitors are organized till the end of 18th month of the project implementation
- 3.2.3.An internet website is operational by Month 3.
 - 3.5 Conditionality and sequencing:

Conditionality: NA

3.6 Linked activities

Component 1 INSPIRE

"Institutional Building and Access to Environmental Information" component of "Capacity Building in the Field of Environment Project" conducted under 2002 Programme and "Establishment of a Turkish Environmental Information Exchange Network (TEIEN)" Project conducted under 2006 Programme are the main linked activities of the project. Both of these projects are related to the access to environmental information and MoEU has gained deep knowledge and experience throughout these projects in terms of implementation of information systems projects.

3.7 Lessons learned

TEIEN Project has been conducted in two separate Components; "Supply of Equipment for the Establishment of a Turkish Environmental Information System" and "Technical Assistance for the Establishment of a Turkish Environmental Information System". These two Components are directly related to each other and delays in Supply Contract has badly affected the implementation of the Service Contract.

4. Indicative Budget (amounts in EUR)

				SOURCES OF FUNDING									
			TOTAL EXP.RE	TOTAL PUBLIC EXP.RE	EU CONTRIBU	TION	NA	ATIONA	AL PUBLIC CO	ONTRIBUTIO	N	PRIV CON' UTI	TRIB
ACTIVITIES	IB (1)	IN V (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)
Activity 1													
Component 1_TA	X	_	4 000 000	4 000 000	3 600 000	90	400 000	10	400 000				_
Component 2_TA	X	_	1 480 000	1 480 000	1 332 000	90	148 000	10	148 000				
TOTAL IB			5 480 000	5 480 000	4 932 000	90	548 000	10	548 000				
TOTAL INV			-	-	-	-	-	-					
TOTAL PROJECT		Т	5 480 000	5 480 000	4 932 000		548 000		548 000				

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))

"The Turkish authorities commit themselves to provide national co-financing according to the above provisions. The NAO will verify that co-financing has been provided in line with the above provisions before submitting requests for funds and final declarations adjusting payment requests to the above ratio as necessary."

In the context of beneficiary staff participating in missions outside of Turkey paid for under a contract, the maximum amounts eligible for accommodation costs and daily allowances ("per diems") are the official rates provided for by EuropeAid for the destination country (see website for the latest rate). Provided the total cost of daily allowance and accommodation charged to the contract remains below these maximum rates, the applicable Turkish rules and regulations for per diems shall be applied when reimbursing these costs for public servants from the beneficiary institutions. Where a contract foresees the reimbursement of such expenses for Turkish public servants and other beneficiaries of IPA projects during missions inside of Turkey, the maximum costs reimbursed under the contract will be those provided for domestic missions under the applicable Turkish legislation provided that they are subject to the same ceiling for maximum rates. This provision cannot be construed and applied in contradiction with the IPA Framework Agreement and in particular the IPA Implementing Regulation.

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

Contracts	Start of	Signature of	Project
	Tendering	contract	Completion
Component 1_TA	QR3 2012	QR1 2013	QR1 2015
Component 2_TA	QR3 2012	QR1 2013	QR1 2015

The implementation period is foreseen as 24 months for both of the components. Tender dossiers will be prepared by the Beneficiary.

6. Cross cutting issues (where applicable)

6.1. Equal Opportunity

The principle of equal opportunities should be taken into account when evaluating the quality of all projects proposed. Specific attention will be paid to this dimension when determining the benefit of training activities.

While implementing the project activities and, to the extent applicable, the Beneficiary will try to ensure that gender disaggregated data will be made available to carry out an analysis of the social and economic impact of the actions undertaken.

The promotion of equality between women and men and the application of a gender mainstreaming approach exists in all Community policies. In Turkey the picture is not pessimistic when compared to this policy route of the European Union. In Turkey there are legal exams for selecting personnel for public institutions. The ministries are employing the people by considering their exam grades not their genders. Also for monitoring purposes, the participants can be asked to fill out questionnaires and evaluation forms during the project period, and their genders can be asked on the forms for statistical studies. By this way, equal participation in the project by women and men will be assured and measured. As a conclusion, this component will comply with the European Commission's equal opportunity policy.

6.2. Environment

The Project itself is focused on the achievement of long-term environmental improvements in Turkey. The Project itself will probably not have any adverse environmental impacts, other than those due to normal activities (e.g. transport). Nevertheless, as an example to others and as a matter of principle, the environmental impact of activities must be minimised as far as possible, e.g. by conserving paper.

6.3. Minority and vulnerable groups

According to the Turkish Constitutional System, the word minorities encompass 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. The project will apply the policy of equal opportunities for all groups including vulnerable groups.

6.4. Civil Society/Stakeholder involvement

Civil society will be informed by the documents and website to be developed by the Project. NGO's working on environmental issues will be invited to the workshops and seminars, their active involvement to the project activities will be ensured.

ANNEXES TO PROJECT FICHE

- 1. Logframe
- 2. Amounts contracted and Disbursed per Quarter over the full duration of the Programme
 - 3. Institutional Framework
 - 4. Reference List of Relevant Laws and Regulations
 - 5. Details per EU funded Contract Where Applicable

ANNEX 1: Logical framework matrix in standard format

LOGFRAME PLANNING MAT	Programme name and number		"Capacity Building in Horizontal Sector"	
		Contracting per FA+2 years	riod expires	Disbursement period expires 1 year after the end of execution of contract
			Total budget:	IPA budget:
			5 480 000	4 932 000
Overall objective	Objectively verifiable indicators	Sources of Verif	fication	
To enhance the protection of environment by preventing or remedying environmental damage and by fostering exchange of spatial information between institutions.	Environment Index improved by 0.1 points 3 years from the end of the project (indicate baselines) Environmental Performance Index increased by 10 points by 3 years from the end of the project (indicate baseline)	Yale Centre for I Law & policy, Y (YCELP)	ale University	
Project purpose	Objectively verifiable indicators	Sources of Verif	ication	Assumptions

Main purpose of the project is to	Draft legislation related to	Legislation and related document	Commitment and cooperation of
strengthen the institutional,	INSPIRE are prepared and	Logistation and related document	target groups.
technical and legislative	published together with		unger groups.
framework for effective	implementation plan by Month 8	MoU Document	
implementation of INSPIRE and	mipromentation plan by Month b	Wide Bounding	
Environmental Liability Directive	Draft legislation for the		
and establishment of strong	transposition of ELD and plan and		
administrative and technical	manuals for the implementation		
capacity at all levels.	are prepared by Month 18		
capacity at all levels.	are prepared by World 10		
	A MoU is prepared among related		
	stakeholders by Month 6.		
	A Data Exchange Strategy is	Data Exchange Strategy	
	prepared by Month 8.	Document Document	
	Trainings are conducted for	Training Evaluation Forms,	
	related major groups by Month	Participant Lists	
	18.	1 articipant Lists	
	RIA document is prepared by	RIA Document, Cost Benefit	
	Month 12.	Analysis Documents	
Results	Objectively verifiable indicators	Sources of Verification	Assumptions
	Objectively verifiable indicators	Sources of Verification	Assumptions
Component 1 INSPIRE	N. 1 CDICDIDE 11	m · · · · · ·	
1. MoEU has increased its	- Number of INSPIRE-capable	-Training needs assessment	Continuity of trainers and the
capacity to future implementation	administrative and technical staff	report, participant lists,	trained staff from relevant
of the INSPIRE Directive	in MoEU increased	certificates, evaluation forms	institutions other than MoEU.

	-Preperation period of INSPIRE- compliant themes decreased through the trainings	-Project completion time recorded for the preparation of an INSPIRE theme -Reports on seminars, participant lists, certificates -Reports on Conference, participant lists	
2. Raised awareness for related stakeholders and decision makers	- Number of INSPIRE-aware decision makers in stakeholders increased	-Reports on seminars, participant lists, certificates	Commitment and cooperation of target groups.
	-Stakeholders are aware of INSPIRE-compliant themes relevant to their study area	-Participants lists, reports on the outcomes of the study visits -Internet website	
3. More environmentally friendly land planning has developed in line with the EU spatial planning approach	-Related legislations and strategy document prepared or updated considering INSPIRE principles and roadmap	-Draft legislation -MoU among related institutions -Implementation Plan and Methodology document -Regulation Impact Analysis Report -Cost-Benefit Analysis Report	Cooperation of key stakeholders
	-Data Exchange Strategy constructed according to INSPIRE	-Data Exchange Strategy document	
	-Technical infrastructure is ready to serve spatial data in compliance with INSPIRE	-Services developed -Metadata Editor Application -Client Application -Design Report	All relevant institutions are willing to co-operate

		-Operations Manual	
		-User's manual	
		-Training material	
		-Certificates, participant lists	
		-Test Plan Report	
		-Test Result Report	
	-Spatial Data Inventory is	-Spatial Data Inventory Report	All datasets related to the topic
	prepared with metadata compliant		are delivered to MoEU
	to INSPIRE		completely
	-Selected pilot themes from	-The system will allow to	
	INSPIRE Annexes ready to be	discover, view and download data	
	utilised in decision making	on "Environmental Monitoring	
		Facilities"	
		-The system will allow to	
		discover, view and download data	
		on "Area Management /	
		Restriction / Regulation Zones	
		and Reporting Units"	
		-The system will allow to	
		discover, view and download data	
		on "Meteorological Geographical	
		Features"	
		-The system will allow to	
		discover, view and download data	
		on "Protected Sites"	
		-The system will allow to	
		discover, view and download data	
		on "Land Cover"	
Results	Objectively verifiable indicators	Sources of Verification	Assumptions

Component 2 ELD			
1. The institutional and technical capacity of Ministry of	Number of certificates issued	- Training needs assessment report, participant lists,	Continuity of trainees,
Environment and Urbanization and		certificates, evaluation forms	cooperation of stakeholders
related Stakeholders were defined			
and strengthened.	MoEU staff is ready to implement		
	the requirements that take place in		
	the relevant legislation		
2.Draft legislation is prepared to	- Legislative, institutional and	-Gap analysis report	
establish a framework of	technical gap analyses are ready		
Environmental liability	- RIA study is ready	- RIA Report	
	- Draft legislation and draft	-Draft Legislation	
	implementation plan are ready to		
	implement		
3. Increase of awareness of	Analysis of the methods for	-Manual for Damage Assessment	
relevant stakeholders, especially	Damage Assessment, Risk	Methods	
the industry concerned, the NGOs	Assessment, Remediation		
concerned and Competent	Assessment are completed and the	-Manual for Risk Assessment	
Authorities for the implementation	methods are defined.	Methods	
of environmental liability.		-Manual for Remediation	
		Assessment Methods	-
	-A roadmap is prepared	-Roadmap document	

	- Competent authorities, relevant sectors are fully equipped and ready to fulfil the requirements of the legislation. -Public is informed via internet website which is made operational	-Participants lists, certificates, evaluation forms -Inspection reports for relevant sectors -Reports on the outcomes of the study visits -Internet website	
Activities	Means	Costs	Assumptions
Component 1 INSPIRE			
	Technical Assistance	4 000 000 €	Continuity of trainers and the trained staff from relevant institutions other than MoEU. Commitment and cooperation of target groups.
Activity Set 1 Know-how and			
experience for administrative			
and technical staff increased			
1.1. Training needs			
assessment was determined			
and a report was submitted to			
MoEU by Month 3.			
1.2. A training programme			
was prepared and submitted to			
MoEU till the end of Month 4.			

1.3. At least 15 trainings with		
60 trainees were conducted		
according to the training		
programme by Month 18.		
1.4. At least 2 seminars (on		
agreed subjects) with at least		
100 participants are organized		
by Month 18.		
1.5. Participation to INSPIRE		
Conference twice (during the		
project implementation		
period) with at least 10		
participants is organized by		
Month 22.		
Activity Set 2 Awareness for		
related major groups and		
decision makers raised		
2.1. At least 2 seminars (on		
agreed subjects) with at least		
100 participants are organized		
by Month 18.		
2.2. At least 2 study visits		
with at least 10 visitors are		
organized by Month 18.		
2.3. An internet website is		
operational by Month 3.		

Activity Set 3.1 INSPIRE		
impact analyses are performed		
and related legislations / plans /		
reports are prepared		
3.1.1.A legislation gap		
analysis is conducted and a		
report is submitted to MoEU		
by Month 6.		
3.1.2. Draft legislation (By-		
Law for Directive		
transposition, Metadata		
Regulation, Regulation on		
Network Services) is prepared		
by Month 6.		
3.1.3. A MoU among related		
institutions is prepared by		
Month 6.		
3.1.4. Data Exchange Strategy		
is prepared by Month 8.		
3.1.5. Implementation Plan		
and Methodology is prepared		
by Month 8.		
3.1.6. Regulation Impact		
Analysis Report is prepared		
by Month 8.		
3.1.7. Cost-Benefit Analysis		
Report is prepared by Month		
12.		

3.1.8. A requirement analysis		
is performed and reported for		
the proper implementation of		
INSPIRE Directive for		
required software and		
hardware by Month 12.		
Activity Set 3.2 Prototype		
implementation carried out		
3.2.1.Services (WMS, WFS,		
WCS, CSW, Meteorology		
Services, described in		
INSPIRE Directive) are		
developed and installed by		
Month 18.		
3.2.2. Metadata Editor		
application is developed and		
installed by Month 18.		
3.2.3.Client application is		
developed and installed by		
Month 18.		
3.2.4.Detailed Design Report		
is prepared till the end of 18th		
month.		
3.2.5.Operations Manual is	-	
prepared till the end of 18th		
month.		
3.2.6.User's Manual is		
prepared till the end of 18th		
month.		

3.2.7.Training and advertorial		
materials are prepared till the		
end of 18th month of the		
project implementation		
3.2.8.User trainings are		
organized till the end of 18th		
month of the project		
implementation		
3.2.9.Test Plan and Test		
Scenarios are prepared till the		
end of 18th month of the		
project implementation		
3.2.10. Test Results Report for		
test scenarios, performance		
tests and stress tests is		
prepared till the end of 18th		
month of the project		
implementation		
Activity Set 3.3 Spatial data		
inventory in the context of		
INSPIRE prepared		
3.3.1. Analyses are conducted		
with related stakeholders in		
the context of INSPIRE		
Directive by Month 5.		
3.3.2. Spatial Data Inventory		
Report and related digital		
products are prepared till the		
end of Month 6.		

Activity Set 3.3 Pilot theme implementations on "Environmental Monitoring Facilities", "Area Management / Restriction / Regulation Zones and Reporting Units" and "Meteorological Geographical Features" (all in Annex III of INSPIRE) are carried out on the prototype implementation		
3.3.1.Spatial datasets on "Environmental Monitoring Facilities" are transferred to the prototype implementation environment completely (with discovery, view, download capabilities) till the end of Month 22.		
3.3.2.Spatial datasets on "Area Management / Restriction / Regulation Zones and Reporting Units" are transferred to the prototype implementation environment completely (with discovery, view and download capabilities) till the end of Month 22.		

	T	T	
3.3.3. Spatial datasets on			
"Meteorological Geographical			
Features" are transferred to			
the prototype implementation			
environment completely (with			
discovery, view, download			
capabilities) till the end of			
Month 22.			
3.3.4.Spatial datasets on			
"Protected Sites" are			
transferred to the prototype			
implementation environment			
completely (with discovery,			
view, download capabilities)			
till the end of Month 22.			
3.3.5.Spatial datasets on			
"Land Cover" are transferred			
to the prototype			
implementation environment			
completely (with discovery,			
view, download capabilities)			
till the end of Month 22.			
Component 2 ELD	,		
•	Technical Assistance	1 480 000 €	Continuity of trainers and the
			trained staff from relevant
			institutions other than MoEU.
			Commitment and cooperation of
			target groups.
			<i>S S</i>

Activity Set 1 The institutional		
and technical capacity of		
Ministry of Environment and		
Urbanization and related		
Stakeholders were defined and		
strengthened.		
1.1.Training needs assessment		
performed and training needs		
assessment report prepared by		
Month 6.		
1.2. Training and public awareness		
materials (Documents and		
Leaflets, etc.) were prepared by		
Month 8.		
1.3. Three (3) workshops with 30		
participants, 4 seminars with 50		
participants and 2 study visits with		
10 participants were conducted by		
Month 18 (Project Cycle		
Management Training for the core		
project team)		
Activity Set 2 Draft legislation to		
harmonise the Environmental		
Liability Directive is prepared.		

-		
2.1.Gap Analysis to determine the		
legislative, institutional and	1	
technical gaps conducted by	1	
Month 6.		
2.2.Damage assessment and risk	1	
assessment studies, remediation	1	
assessment methods studies are	1	
undertaken by Month 18.		
2.3.RIA study conducted and a	1	
report is prepared by Month 12.		
2.4.Draft legislation and draft	1	
implementation plan are prepared	1	
by Month 18.		
Activity Set 3.1 Manuals on	1	
Damage Assessment, Risk	1	
Assessment and Remediation	1	
Assessment including the	1	
approach methods prepared	1	
	1	
3.1.1. Analysis of the methods for	1	
Damage Assessment completed	1	
and manuals are prepared by	1	
Month 12.		
3.1.2.Analysis of the methods for		
Risk Assessment completed and	1	
manuals are prepared by Month	1	
12.		

		T
3.1.3. Analysis of the methods for		
Remediation Assessment and		
manuals are prepared completed		
by Month 12.		
3.1.4.A roadmap prepared for the		
proper implementation of ELD by		
Month 12.		
Activity Set 3.2 Awareness for		
related groups and decision		
makers raised		
3.2.1.A seminar on Dissemination		
of Roadmap and Draft Legislation		
up to 100 participants is organized		
till the end of Month 18.		
3.2.2.At least 1 study visit with at		
least 10 visitors are organized till		
the end of 18 th month of the project		
implementation		
3.2.3.An internet website is		
operational by Month 3.		

ANNEX II: Amounts contracted and Disbursed per Quarter over the full duration of the Programme (IPA contribution only)

Contracted	I/2013	II/2013	III/2013	IV/2013	I/2014	II/2014	III/2014	IV/2014	I/2015
Component 1-TA	3 600 000	0	0	0	0	0	0	0	0
Component 2-TA	1 332 000	0	0	0	0	0	0	0	0
Cumulated	4 932 000								
Disbursed	I/2013	II/2013	III/2013	IV/2013	I/2014	II/2014	III/2014	IV/2014	I/2015
Component 1- TA	1,500,000	0	500,000	0	500,000		500 000		600 000
Component 2 -TA	1,000,000	0	250,000	0	82 000	0		0	
Cumulated	2,500,000	2,500,000	3,250,000	3,250,000	3 832 000		4 332 000		4 932 000