

## MDG-F – 1680: Enhancing the Capacity of Turkey to Adapt to Climate Change

### 1. Cover Page

Country: Turkey

**UNDAF Outcome 1:** By 2010, strengthen individual and institutional capacity for both democratic and environmental governance at local and central levels.

*Outcome 1.1.* Increased individual collective and institutional capacity for participation at all levels of decision making.

*Outcome 1.2.* Mechanisms for the implementation and monitoring of international norms and standards on human rights strengthened.

*Outcome 1.3.* Strengthened management and protection of ecosystems for sustainable development.

#### Joint Programme Outcomes:

- 1) Climate change adaptation mainstreamed in Turkey's national plans.
- 2) Institutional capacity developed for managing disasters induced by climate change.
- 3) Capacity for community-based adaptation in the Seyhan River Basin developed.
- 4) Climate change adaptation mainstreamed into the UN programming framework in Turkey.

Prog/project Title:

#### **Enhancing the Capacity of Turkey to Adapt to Climate Change**

Programme/project duration:

January 2008 to December 2010

Fund Management Option: Pass-through

Managing or Administrative Agent: UNDP

Total estimated prog/project budget:

**USD 7,000,000**



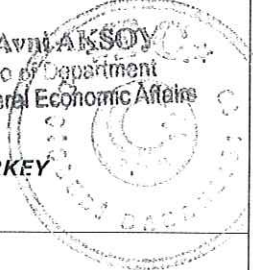
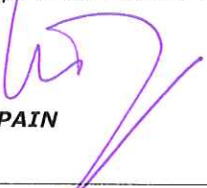


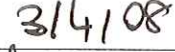



Out of which:

1. Planned resources:

- Government \_\_\_\_\_
- Regular/Other Resources \_\_\_\_\_
- NGO or private \_\_\_\_\_
- UNDP 4,882,186
- UNEP 587,100
- UNIDO 684,800
- UNCT 117,700
- FAO 663,400
- AAF (Administering Agent Fee) 64,814

2. Unfunded budget: \_\_\_\_\_

**Names and signatures of (sub) national<sup>1</sup> counterparts and participating UN organizations:**

<b>UN Organizations</b>	<b>National Partners<sup>2</sup> (including sub national partners.)</b>
<p><b>Mr. Mahmood A. Ayub</b>  <b>UN Resident Coordinator/                      UNDP Resident Representative</b></p> <p>Signature </p> <p>United Nations, Turkey</p> <p>Date &amp; Seal</p>	<p></p> <p>Signature</p> <p><b>H. Avni AKSOY</b>                      Head of Department                      Multilateral Economic Affairs</p> <p><b>MINISTRY OF FOREIGN AFFAIRS, TURKEY</b></p> <p>Date &amp; Seal</p> 
<p><b>H.E. Mr. Luis Felipe Fernandez Del La Pena</b>                      Ambassador</p> <p>Signature </p> <p><b>EMBASSY OF SPAIN</b></p> <p>Date &amp; Seal</p>	<p>Signature </p> <p>Signature</p> <p><b>MINISTRY OF ENVIRONMENT AND FORESTRY, TURKEY</b></p> <p>Date &amp; Seal</p>
<p>Signature </p> <p><b>UNITED NATIONS ENVIRONMENT PROGRAMME</b></p> <p>Date &amp; Seal </p>	
<p>Signature </p> <p><b>UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION</b></p> <p>Date &amp; Seal </p>	
<p>Signature</p> <p><b>FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS</b></p> <p>Date &amp; Seal</p>	<p></p>

<sup>1</sup> Governmental, and any NGO/civil society, private sector or other partners

<sup>2</sup> For UNDP, national signatories must include the national coordinating agency and the relevant national cooperating agency

## 2. Executive Summary

This Joint Programme (JP) addresses the priority area of “Enhancing Capacity to Adapt to Climate Change”. As part of the southern belt of Mediterranean Europe, Turkey is highly vulnerable to anticipated climate change impacts. Turkey’s First National Communication to the United Nations Framework Convention on Climate Change (UNFCCC) in 2007 reports that present climate change effects include rising summer temperatures, reduced winter precipitation in the western provinces, loss of surface waters, greater frequency of droughts, land degradation, coastal erosion, and flooding. This is having a major negative effect on water availability for food production and rural development. The severity of these impacts is predicted to increase. It is estimated, for example, that 50% of surface waters in the Gediz and Büyük Menderes Basins along the Aegean coast of Turkey will be lost in this century, creating extreme water shortages for agricultural, domestic and industrial water users.

At present, the achievement of Millennium Development Goals (MDGs) in Turkey, in particular MDG 1 (Eradicate extreme poverty and hunger), MDG 3 (Promote gender equality and empower women) and MDG 7 (Ensure environmental sustainability) are threatened by climate change. The reduced water availability (in soils, rivers, dams, lakes and ground reserves) is likely to have devastating effects on agricultural production, with knock-on effects being a reduction in food production, a reduction in power and influence of rural woman’s groups, and increased degradation of rural landscapes. A strategy to respond to all negative climate change impacts is in the national agenda.

The core objective of the Joint Programme is to develop capacity for managing climate change risks to rural and coastal development in Turkey. This will be achieved by mainstreaming climate change adaptation into the national development framework, building capacity in national and regional institutions, piloting community-based adaptation projects in the Seyhan River Basin, and integrating climate change adaptation into all UN agencies in Turkey.

The key requirements for climate change adaptation in Turkey are stipulated in Turkey’s Ninth Development Plan 2007-2013 (paragraph 461) and in rural development strategies such as The Regional Development Plan for the Eastern Black Sea Region (2002). These requirements will be addressed by developing a National Climate Change Adaptation Strategy. In addition, legislative changes will be proposed to mainstream climate change risks into development and regional planning.

The capacity of national and regional institutions to respond to disasters induced by climate change will be enhanced. In particular, capacity will be developed in the Ministry of Environment and Forestry (MOEF), State Planning Organization (SPO), Ministry of Agriculture and Rural Affairs (MARA), Ministry of Industry and Trade (MIT), Ministry of Energy and Natural Resources (MENR), Ministry of Health (MOH), Ministry of National Education (MONE), NGOs and Universities to ensure that appropriate climatic data are systematically collected and disseminated to relevant end-users via early warning systems.

Present initiatives in the Seyhan River Basin to increase the resilience of communities to climate change will be further developed. The approach will be multi-faceted and will aim to maintain agricultural productivity, ecosystem goods and services, and the natural resource base in the context of a changing climate. It will also focus on improving preparedness for an increase in the frequency of droughts and floods. Public private partnerships will be a key component of this outcome.

The United Nations Development Assistance Framework (UNDAF) will be revised and used for mainstreaming climate change adaptation within MDG-based UN programming in Turkey. UN resources for responding climate change risks will be mobilized. The focus will be on areas where the UN has a comparative advantage and can develop long-lasting

in-country capacities at individual, institutional and societal levels. Adaptation to climate change will be integrated into all multi-agency projects targeted at achieving the MDGs.

### 3. Situation Analysis

Turkey's First National Communication to the United Nations Framework Convention on Climate Change (UNFCCC) in 2007 presents specially commissioned studies on past and predicted climatic trends. A Mann-Kendall trend analysis showed that winter precipitation in the western provinces of Turkey has decreased significantly in the last five decades. Fall precipitation, by contrast, has increased in the northern parts of Central Anatolia. The meteorological mechanisms underlying these changes are poorly understood. Summer and spring precipitation has shown no trend. Future simulations<sup>3</sup> show a predicted decrease in total precipitation along the Aegean and Mediterranean coasts and increases along the Black Sea coast of Turkey. The most severe absolute reductions in precipitation are predicted to occur on the south western coast. Further details on the baseline climate of Turkey are presented in Annex C.

Summer temperatures (mean and maximum) over the past five decades have increased in the western provinces, while winter temperatures have shown a decrease mainly along the coast. It is not clear whether the urban heat island effect has driven the increase in summer temperatures. Simulations predict a mean annual temperature increase of 2-3 °C for Turkey by 2100<sup>4</sup>. In the western half of the country, summer temperatures are expected to increase by up to 6 °C.

To investigate the likely consequences of climate change on surface waters, a water budget model for the Gediz and Büyük Menderes Basins along the Aegean coast of Turkey, based on MAGICC/SCENGEN model temperature and precipitation forecasts, was undertaken<sup>5</sup>. The results indicate that by 2050, water runoff will reduce by 35-48%, potential evaporation will increase by 15-17%, crop water demand will increase by 19-23% and surface waters will be reduced by about 35%. Because water supply is equal to demand in many parts of Turkey (e.g. Gediz Basin), these forecasts have severe implications for water supply to domestic, agricultural and industrial users.

Water stress is already apparent in many parts of Turkey, and is exacerbated by sharply rising demand in many sectors, particularly agriculture. Central Turkey, in particular, is at present facing a catastrophic drought following the hottest summer (2007) in living memory. The capital Ankara is presently experiencing water shortages, and water restrictions have been put in place. The vast Konya Plain, which covers an area twice the size of Wales and stretches from below Ankara to the Mediterranean, was once known as Turkey's bread basket. After a virtually rainless summer and climate change effects over the past decade, dozens of lakes have dried up, with severe consequences for local communities and wildlife.

Implementation of highly effective water conservation initiatives across all sectors will be required to adapt to the predicted changes in water supply. Technological changes in irrigation and water distribution systems will also be required. In this context, industry should apply appropriate environmental measures to assist in conservation of natural resources.

Higher temperatures, greater evapotranspiration and reduced rainfall will also markedly reduce livestock carrying capacity in Turkey. Grazing lands are already under enormous pressure with more than 85% of Turkey's total land area 'highly vulnerable to desertification'<sup>5</sup>. Turkey is a signatory to the UN Convention to Combat Desertification and has initiated the National Action Programme for Combating Land Degradation and Desertification (NAP) to prevent land degradation and restore degraded landscapes. This

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<sup>3</sup> All simulations were performed with the RegCM3 regional climate model.

<sup>4</sup> Onol, B. and Semazzi, F.H.M. 2007. Regionalisation of climate change simulations over Eastern Mediterranean. Journal of Climate. Submitted.

<sup>5</sup> First National Communication, 2007.

programme will require considerable expansion in order for the rural economy to adapt to climate change.

Over 30 million people live in the coastal areas of Turkey. Infrastructure and agricultural land in these areas are potentially vulnerable to sea level rise, which is occurring at approximately 4-8 mm per year, as measured by the Turkish National Sea Level Observation System. In the Mediterranean coastal zones, increasing extraction of groundwater is lowering the water table and leading to sea water intrusion in most coastal aquifers. In addition, Turkish shorelines, particularly in the Central and Eastern Black Sea, the Northern Aegean Sea, and Eastern Mediterranean, are presently negatively affected by coastal erosion and flooding. Sea level rise will greatly exacerbate these existing problems.

Natural disasters such as droughts, floods and landslides are also likely to increase in frequency as Turkey's climate changes. Droughts are increasingly recognized as an impending national crisis, and a 'Drought Centre' is being established by the Konya Soil and Water Resources Research Institute to improve drought predictions and to assist farmers in managing drought. With regard to flooding and landslides, economic losses as a proportion of GDP have historically been among the highest in Turkey compared to other countries in Europe and Commonwealth of Independent States (CIS).

Unless major adaptation measures are undertaken as a matter of urgency, the predicted impacts of climate change threaten the achievement of Millennium Development Goals (MDGs) in Turkey – in particular MDG 1 (Eradicate extreme poverty and hunger), MDG 3 (Promote gender equality and empower women) and MDG 7 (Ensure environmental sustainability). This is because climate change may, in particular, result in reduced water availability (in soils, rivers, dams, lakes and ground reserves) with potentially devastating effects on agricultural production. The knock-on effects of decreasing agricultural production are a reduction in food production, a reduction in power and influence of rural woman's groups, and increased degradation of rural landscapes.

## 4. Strategies Including Lessons Learned and the Proposed Joint Programme

### Background/context

Turkey's Ninth Development Plan (2007-2013) highlights the importance of addressing climate change impacts and managing water and ecological resources in a sustainable manner. The National Rural Development strategy for Turkey (2006) also prioritizes management of natural resources, which it states is a key to overcoming rural and urban disparities. The UN is consequently in a position, through the proposed Joint Programme, to support the Turkish authorities on climate change initiatives that are already underway or in the pipeline. Like most European Union (EU) candidate and accession countries, Turkey recognizes the importance of managing its environment appropriately in order to ensure the success of its reform agenda. The UNDP has been specifically asked by the Turkish Government, (largely via the Ministry of Environment and Forestry and the European Commission (EC)) to assist the country's efforts in this regard by identifying priority areas for intervention and further investment, mainly in the areas of sustainable development and climate change. Turkey's UNDAF covers the 2006-2010 time frame and includes democratic and environmental governance as one of three outcomes.

The UN Country Team (UNCT) in Turkey consists of twelve UN agencies. Currently, the UNCT is operating one Joint Programme, i.e. the UN Joint Gender Programme. The UNDP will provide support for programme oversight and coordination among participating UN organizations, including with UNEP a non-resident UN organization, in particular through the mainstreaming and cross cutting activities, training, advocacy campaigns, dissemination of lessons learned from community based pilot projects, as well as expert support from all UNCT agencies.

The Ministry of Environment and Forestry (MOEF), together with the existing working groups of the Coordinating Board on Climate Change, will be the leading executing agency for the technical components of the programme. The State Planning Organization (SPO), which is the purveyor of the national strategies to achieve the MDG's in Turkey, will be responsible for overall coordination and execution of the policy related components. Other relevant ministries, such as the Ministry of Agriculture and Rural Affairs (MARA), Ministry of Industry and Trade (MIT) and Ministry of National Education (MONE) will ensure the technical support to programme implementation.

### Lessons Learned by UNEP, UNDP, UNIDO and FAO

Previous adaptation projects undertaken by UNEP have shown that, in order to mainstream climate change adaptation, it is essential that serious consideration be given, at a very early stage, to: i) climate change related issues that are of present concern to the community, region, or country; ii) management or coping strategies currently employed to deal with those climate change related conditions; and iii) policy and decision structures that exist at present (and might exist in the future) to deal with such conditions.<sup>6</sup>

Accordingly, stakeholder consultations with affected populations have been scheduled as part of each of the first three outcomes of this programme. This will serve to target the information to specific user-groups and their needs. In the case of outcome 1, a participatory vulnerability assessment will identify current vulnerability and coping strategies and, suggested legislative and policy amendments will be tested through field level pilot projects (in outcome 3) to ensure their appropriateness, particularly to reducing the burden on women and marginalized groups. In outcome 2, the data and information needs of the user-groups (e.g., farmer, industrialist etc.) and of decision makers will be used to develop user-friendly information. This is modeled after the approaches of community and policy driven information development currently piloted in

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<sup>6</sup> Smit, B. and Benhin, J. 2004. Tools and methodologies for mainstreaming vulnerability and adaptation to climate change into sustainable development planning. UNEP Technical Paper No. 5.

other regions (by UNEP). Finally, in outcome 3, the community groups themselves will have the opportunity to test locally derived and relevant coping strategies with support from the programme.

Several key lessons that emerged during the second Country Cooperation Framework (CCF) of UNDP were highlighted in the 2004 Assessment of Development Results (ADR). These will be taken into account during implementation of the Joint Programme. They include: i) UNDP should systematically build on the core of its work for democratic governance and growth without poverty, in support of EU accession and for the achievement of the MDGs; ii) UNDP should leverage its experience in participatory and transparent capacity-building for local administrations and communities and in dealing with regional disparities, drawing on both international and national capacities and networks of expertise; iii) UNDP should pursue the sustainability of its programmes and projects, through greater focus on monitoring and evaluation; and iv) UNDP should ensure the establishment and maintenance of partnerships, especially with the EU and specifically the European Commission, the Turkish Government, and the UNCT.

UNIDO's experience shows that environmentally sound manufacturing in industry includes techniques for treating wastes at the end of the production process as well as preventive techniques that alter production processes through reducing inputs or recycling. Eco-Efficiency (Cleaner Production) Centers have been developed by UNIDO to assess the cost-effectiveness of such measures. These centers focus primarily on reducing the material and energy consumption of processes, reducing quantities of waste and using renewable resources, in addition to increasing levels of non-material services through, for example, eco-leasing.

FAO has learnt that a key ingredient for adaptation to climate change projects is the effective monitoring of climate change effects on natural resources, and agricultural production systems. Other critical factors include: i) the appropriate technical assistance (e.g. irrigation methods); ii) agricultural policies that support small farmers; and iii) effective farmer extension services. FAO is well positioned to build local capacity in the area of drought management and crop forecasting in order to better integrate climate change data within the present framework of early warning systems. It can also provide expertise to the Ministry of Environment and Forestry for monitoring and analyzing climate change effects on vegetation cover, commercial forests and pasture land.

### **The Proposed Joint Programme**

The Joint Programme will support Turkey's efforts to introduce adaptive and long-term strategies into the legislation to address sustainable development issues. Without cognizance of climate change induced threats, Turkey's progress toward achieving the MDGs will be seriously jeopardized. For example, a major lacuna in national policy in Turkey is the insufficiency of climate change considerations in long-term water resource planning, particularly in the vulnerable and sensitive zones such as wetlands and aquatic ecosystems; based on legislation on energy efficiency and renewable energy which has indirect effect on water resources as well. This threatens economic development as well as the appropriate conservation of Turkey's natural resources. The Joint Programme will serve as a catalyst through pilot local actions to introduce community-based adaptation principles; build capacity in the vulnerable rural regions and develop public-private partnerships to mobilize resources in addressing climate change risks. Building on preliminary studies carried out under the First National Communication of Turkey to the UNFCCC (2007), the programme will focus on the Seyhan River Basin, as it has been identified as an extremely vulnerable region in terms of climate change. Finally, the proposed programme will help align the efforts of the UNCT on the emerging climate change issues. The programme thus provides an unprecedented opportunity for the UNCT in Turkey to demonstrate its capacity to function as "One UN".

UNEP has also learnt that climate change information needs to be developed in a format that is appropriate to the policy making process. Mistakes of the past include ineffective communication from early warning systems and insufficient response mechanisms, as the tsunami in south east Asia and Hurricane Katrina in the southern United States have demonstrated.

In summary, the core objective of the Joint Programme is to develop capacity for managing climate change risks to rural and coastal development in Turkey. This will be achieved by developing proposals for governmental consideration on mainstreaming climate change adaptation into the national development framework, building capacity in national and regional institutions, piloting community-based adaptation projects in the Seyhan River Basin, and integrating climate change adaptation into the UN programming framework in Turkey. Capacity development will take place at the systemic, institutional and individual levels and will build on existing policy and institutional frameworks in order to promote sustainability.

## 5. Results Framework

The **core objective** of the Joint Programme is to develop capacity for managing climate change risks to rural and coastal development in Turkey. The proposed program will apply a three-pronged approach to achieving fully fledged mainstreaming of climate change adaptation: (i) mainstreaming into the national development framework; (ii) mainstreaming through local pilot action; and (iii) mainstreaming into the UN country programmatic framework. As a cross-cutting methodological approach, adaptive capacity development will be applied at all levels (systemic, institutional and individual), to build on existing systems of knowledge, policy and institutional framework for long term sustainability.

In pursuant of the core objective, the Joint Programme will achieve the following outcomes:

### **Outcome 1. Climate change adaptation mainstreamed into Turkey's plans.**

(FAO/UNDP/UNIDO/UNEP/MOEF/MARA/SPO/MIT/UNIVERSITIES)

A National Climate Change Adaptation Strategy will be developed to address key requirements for climate change adaptation. Legislative and policy changes will be proposed to mainstream climate change risks into development and regional planning. Capacity will also be built for research and knowledge on adaptation to climate change in Turkish institutions.

### **Outcome 2. Institutional capacity developed for managing climate-risks, including disasters.**

(FAO/UNDP/UNIDO/UNEP/MOEF/MARA/SPO/MIT/UNIVERSITIES)

The capacity of national and regional institutions to respond to climate change risks in Turkey will be enhanced. In particular, capacity will be developed in the Turkish Government to ensure that appropriate climatic data is systematically collected and disseminated to relevant end-users via early warning systems. This will also include public health concerning water – borne diseases.

### **Outcome 3. Capacity for community-based adaptation in the Seyhan River Basin developed.**

(FAO/UNDP/UNIDO/UNEP/MOEF/MARA/SPO/MIT/UNIVERSITIES)

Present initiatives in the Seyhan River Basin to increase the resilience of communities to climate change will be further developed. The approach will be multi-faceted and will aim to maintain agricultural productivity, ecosystem goods and services, and the natural resource base in the context of a warming and drying climate. It will also focus on improving preparedness for an increase in the frequency of droughts and floods. Public private partnerships will be a key component of this outcome. Also activities to enhancing public awareness will be performed.

### **Outcome 4. Climate change adaptation mainstreamed into UN programming framework in Turkey.** (UNCT and UNEP)

The UNDAF framework will be revised and used for mainstreaming climate change adaptation within MDG-based UN programming in Turkey. The focus will be on areas where the UN has a comparative advantage and can develop long-lasting in-country capacities at individual, institutional and societal levels. Adaptation to climate change will be integrated into all multi-agency projects targeted at achieving the MDGs.



Annex B provides further details on: i) strategies addressing the key causes of the problems which have been identified; ii) partners involved in each phase; iii) the intended manner in which the project should unfold; iv) the division of labor between the partners. Annex D provides details on the institutional framework; capacities and expertise of partners in the Joint Programme.

Joint Programme partners will jointly conduct planning and review meetings (at least semi-annually) for all activities covered in the results framework and monitoring and evaluation plan. The meetings will include an assessment of the risks and assumptions to determine whether they are still holding. A new work plan and budget will be produced with the necessary adjustments made based on the lessons learned from the review of the risks and assumptions and the implementation progress achieved. The new work plan will be approved in writing by the Programme Management Committee (PMC). Substantive changes in the Joint Programme scope will require revision of the Joint Programme Document. The amendments will need to be signed by all parties.

UNDAF Outcome : By 2010, strengthen individual and institutional capacity for both democratic and environmental governance at local and central levels. Outcome 1.3. Strengthen management and protection of ecosystems for sustainable development (UNDP, UNIDO, FAO).						
Expected Results (Outputs)	SMART Outputs	Implementing Partner	Indicative activities for each Output	Resource allocation and indicative time frame*		
				Y1	Y2	Y3
<b>JP Outcome 1. Climate change adaptation mainstreamed in Turkey's development plans.</b>						
Output 1.1. A plan for education, training and public awareness on adaptation to climate change (UNFCCC Article 6) to support the objectives of the Joint Programme developed and implemented.	List of relevant target groups elaborated (e.g. the general public, media, industry, private sector, policy makers, woman and vulnerable groups); Needs of target groups and means of training identified (e.g. tools such as workshops, seminars, information packages, handbooks for decision-makers).	MOEF	Activity 1.1.1. Assess the training needs and develop a plan for meeting them (UNEP).	50,000	0	0
	The training plan implemented and follow up undertaken.	MOEF	Activity 1.1.2. Implement the plan (UNEP).	100,000	50,000	15,000
Output 1.2. Long term knowledge in Turkish institutions developed. This serves both to develop capacity in country, and to increase Turkey's profile in international climate change collaboration, including IPCC.	Extra curricular activities for school children in primary and secondary schools in the Seyhan River Basin for awareness raising provided. These activities would include small projects with a budget to be implemented by the school children.	MOEF	Activity 1.2.1. Facilitate student training at school and university levels (UNDP).	27,700	83,100	24,200
	Undergraduate short courses in climate change disaster events developed; Post-graduate studies in management of climate change risks initiated through provision of bursaries; Networking between Turkish and foreign climate change researchers that are actively involved in international scientific programmes (e.g. CLIVAR) promoted; Capacity of Turkish delegates to the climate change COP/MOP's to promote coherence between national and international policies developed; Assessment of Turkey's requirements for adaptation to climate change with respect to EU accession undertaken.	MOEF	Activity 1.2.2. Build capacity for research and knowledge on adaptation to climate change in Turkish institutions (UNEP).	65,000	20,000	0
Output 1.3. National adaptation to climate change strategy developed and submitted to the Government of Turkey for consideration. This will serve as a basis for altering existing policies and legislative framework.	Literature on vulnerability and impact of climate change in selected sectors and regions reviewed and synthesized.	MOEF	Activity 1.3.1. Review and synthesise existing literature on vulnerability and impact of climate change in relevant sectors and regions (UNEP).	10,000	0	0
	Vulnerability assessment conducted in selected regions with the Adaptation Policy Frameworks for climate change guidelines.	MOEF	Activity 1.3.2. Undertake participatory vulnerability assessment with key stakeholders in relevant regions (including the Seyhan River Basin) and sectors. The Adaptation Policy Frameworks for climate change guidelines will be used (UNEP).	20,000	0	0
	Information; Interpretation and prioritization of needs collected; Strategy designed.	MOEF	Activity 1.3.3. Prepare Strategy with government and support from FAO, UNDP and UNIDO (UNEP).	10,000	0	0
	Institutional information workshops conducted on the strategy.	MOEF	Activity 1.3.4. Disseminate strategy proposal to appropriate stakeholders for feedback (UNEP).	5,000	0	0
	Strategy revised and adapted based on feedback from the relevant stakeholders.	MOEF	Activity 1.3.5. Revise the strategy based on feedback (UNEP).	4,000	0	0
	Official signature obtained by all stakeholders; Strategy submitted to the Government.	MOEF	Activity 1.3.6. Submit to the Government of Turkey for consideration (UNEP).	1,000	0	0
Output 1.4. Amends to policy and appropriate policy tools will be developed and proposed for reducing vulnerability to climate change through the government's development activities and private sector. A package of policies, legislative, regulatory and other policy instruments is produced and agreed to be submitted to the Government of Turkey for consideration to address climate change risks foreseen in the climate change models/scenarios to be developed during the programme implementation.	Relevant national policies and regulatory frameworks as entry points for reform identified and reviewed; Institutional mapping undertaken; Draft amendments prepared and capacity needs identified; Regional adaptation strategy for the Seyhan River Basin developed; Stakeholders consulted; human resources training needs developed to facilitate the implementation of amended relevant laws and regulations; Action plan programme for the appropriate capacity building and awareness raising with regard to the amended policies and legislation elaborated. Effectiveness of the existing monitoring and evaluation mechanisms analysed and reviewed. Recommendations on adjustments of monitoring and evaluation mechanisms to incorporate climate change adaptation into national, regional and local level structures developed.	MOEF	Activity 1.4.1. Undertake a legal and institutional review i.e. assess the Turkish legal and policy frameworks to identify the key entry points for adaptation mainstreaming (with a particular focus on the four themes (water, disaster management, coastal management, natural resources management) and cross cutting tools such as EIA) (UNEP).	70,000	0	0
	Proposals negotiated, agreed upon and submitted.	MOEF	Activity 1.4.2. Submit proposals developed in Activity 1.4.1 for integrating climate change adaptation into the national legal framework to relevant stakeholders (UNEP).	70,000	0	0
	Staff responsible for climate change adaptation in agriculture trained.	MOEF	Activity 1.4.3. Undertake targeted capacity building for those responsible for implementing changes as they relate to agriculture (with particular focus on woman's groups) (FAO).	7500	7500	15000
	Staff responsible for climate change adaptation in industry trained.	MOEF	Activity 1.4.4. Undertake targeted capacity building for those responsible for implementing changes as they relate to industry (UNIDO).	7,500	8,800	3,700
	Staff responsible for climate change adaptation in other relevant sectors trained.	MOEF	Activity 1.4.5. Undertake targeted capacity building for those responsible for implementing changes as they relate to sectors other than agriculture and industry (UNEP).	60,000	0	0
Output 1.5. Industrial practices amended to reduce vulnerability to climate change.	Geographical area/s selected; Baseline of water section analysed; Appropriate industrial processes to be altered identified; Appropriate technological changes identified.	MIT	Activity 1.5.1. Prepare a business plan for an eco-efficiency centre, which focuses on adaptation of industry to climate change risks, especially reduction of water consumption (UNIDO).	34,000	0	0
	The eco-efficiency center established.	MIT	Activity 1.5.2. The eco-efficiency centre, with 6 demonstration sites to reduce water consumption, established (UNIDO).	119,000	200,000	0
	Report prepared on lessons learnt with a cost-benefit analysis of processes implemented in the demonstration sites, the progress on MDG targets, and how the results can feed into national policies.	MIT	Activity 1.5.3. Prepare report on lessons learnt, a cost-benefit analysis of processes implemented in the demonstration sites, the progress on MDG targets, and how the results can feed into national policies. This information will be used as input into Output 1.4 (UNIDO).	103,000	125,000	39,000

JP Outcome 2. Institutional capacity developed for managing climate-risks, including disasters.							
Output 2.1. Technical capacity for data management is developed. This will improve the quality of drought and flood early warnings across Turkey. UNEP's Division of Early Warning and Assessment can provide guidance.	Selection of relevant stakeholders; Needs assessment conducted.	MARA/MOEF	Activity 2.1.1. Identify the stakeholders at the local to decision-making levels, and identify their information needs (FAO).	5,000	5,000	10,000	
	Assessment undertaken of current environmental monitoring and data management in national, regional and local government, the private sector, universities, NGOs, Civil Societies Organizations (CSO) and Community Based Organizations (CBOs) in terms of climate change/seasonal forecasting data collection, assessment and distribution.	MARA/MOEF	Activity 2.1.2. Assess the existing technical capacity and gaps for providing early warnings of floods and droughts (FAO).	5,000	5,000	10,000	
	Recommend methods of data standardization, quality control, and feedback loops between data producers and data users; Develop and implement an environmental information management system; Identify and agree to roles and responsibilities of relevant institutions in relation to monitoring, and general management of the information system; Develop and implement training materials for the data users.	MARA/MOEF	Activity 2.1.3. Prepare an implementation plan for an environmental information management system that can integrate available climate change data across all relevant institutions and disseminate this information to end-users (FAO).	87,500	87,500	175,000	
Output 2.2. Technical capacity for analysis and interpretation of data developed.	Identify the type of data required for strengthening and building upon the project; Provide biological expertise to the MARA in order to further develop environmental observing systems to provide the necessary data to improve climate change forecasts; Facilitate collaboration with TEFER to incorporate flood warnings into the MARA Early Warning System.	MARA	Activity 2.2.1. Expand and strengthen MARA's Turkish Agriculture Drought Masterplan in order to increase capacity to deliver early warnings for floods and droughts. This activity will build on the multi-agency Global Terrestrial Observing System (GTOS) (FAO).	50,000	50,000	100,000	
	Currently available regional climate models accessed through comparative studies; A series of training activities to help capacity building among government agencies in using regional climate projections developed and executed; A prototype of adaptive data for climate change data analysis, projects, scenario analysis and information dissemination developed and implemented; An information dissemination system developed; Capacity to interpret the data analyses and make appropriate recommendations for decision makers at all scales developed.	ITU	Activity 2.2.2. Design and implement a sustainable modeling framework, in harmony with IPCC/AR4, to continually provide downscale climate projections for Turkey at spatial-temporal scales appropriate for climate change preparedness and planning (UNDP).	54,000	162,000	54,000	
Output 2.3. Capacity of end-users to respond to early warnings developed.	Collaboration between experts who are responsible for managing the Seyhan River Basin and international centres focusing on risk reduction promoted; Relevant local stakeholders identified; A set of procedures to respond to early warnings and seasonal forecasts with these stakeholders developed; Environmental management as a tool for risk reduction piloted.	MOEF	Activity 2.3.1. Implement a pilot project in the Seyhan River Basin to build capacity to respond to early warnings and seasonal forecasts (i.e. risk reduction) (UNDP).	22,100	65,800	22,100	
	Roadmap developed with detailed procedures to undertake during drought and flood events (i.e. crisis management) and presented to the Turkish government.	MOEF	Activity 2.3.2. Establish a set of procedures for the Turkish government and local stakeholders to undertake during drought and flood events (i.e. crisis management) (UNDP).	26,900	51,200	26,900	
JP Outcome 3. Capacity for community-based adaptation in the Seyhan River Basin developed.							
Output 3.1. Proposals for community-based adaptation projects developed and selected.	Key problems reviewed in the Seyhan River Basin; Adaptation strategy developed for the region; Stakeholder analysis and engagement plan developed, with a special emphasis on women's groups and other marginalized groups; Baseline information documented and available adaptation options assessed; Workshops, expert meetings, and consultations held with local stakeholders to review options; Livelihood analysis undertaken to identify the gaps to increase the adaptive capacity of local communities and municipalities; Current available methodologies and ongoing projects identified which may be strengthened by MDG-F funding; Project selection methodology developed (i.e. eligibility and selection criteria established for funding of projects) by using the information collected in this activity; Criteria selected by the technical Advisory Committee and endorsed by the Programme Management Committee; Monitoring and evaluation methodologies/strategies for the pilot projects developed.	MOEF	Activity 3.1.1. Prepare guidelines on climate change adaptation projects that will be eligible for funding. This will be undertaken by the TAC (UNDP).	25,900	77,700	46,400	
	Communication undertaken with local newspaper; "Restricted Call for Proposals" advertised in local newspapers.	Local Newspapers	Activity 3.1.2. Advertise a 'Restricted Call for Proposals' in local newspapers. A concept note including a budget and logframe will be required in the proposal (UNDP).	2,000	6,000	2,000	
	Communication strategy developed; Training provided to local communities, government and other relevant stakeholders on adaptation to climate change through interactive workshops; The workshops opened to the general public and advertised in local newspapers; Information provided to local and national government on the process of project selection; Local community preferably selected as the implementing agent with local government as the executing agent.	Local Communities	Activity 3.1.3. Inform the public and government on the eligibility criteria and the selection process, and build local capacity on climate change adaptation projects (UNDP).	22,900	48,700	38,400	
	Concept notes selected according to criteria developed in activity 3.1.1.; This has been undertaken by the Technical Advisory Committee, and endorsed by the Programme Management Committee (PMC); Appropriate expertise provided to successful applicants to develop concept note into full project proposal; This has been undertaken by Regional Project Manager (RPM) within the PMC in cooperation with the Technical Advisory Committee.	UNDP	Activity 3.1.4. Development of concept notes into full project proposals (UNDP).	17,000	51,000	17,000	
Output 3.2. Pilot projects awarded, initiated, monitored and evaluated.	Pilot projects awarded.	UNDP	Activity 3.2.1. Award pilot projects the start up funds (UNDP).	577,300	1,919,882	577,300	
	Local institutional arrangements set up and pilot projects initiated.	MOEF	Activity 3.2.2. Facilitate start-up of pilot projects (UNDP).	11,700	21,600	11,700	
	Project progress evaluated i.e. mid-term review and final evaluation taken place based on a reporting mechanism established.	MOEF	Activity 3.2.3. Monitor, evaluate and audit project progress (UNDP).	53,000	37,519	46,481	
	Final report of the project elaborated with all lessons learned captured.	MOEF	Activity 3.2.4. Prepare final report on projects (UNDP).	15,300	45,900	23,800	
Output 3.3. Lessons captured and up-scaled by feeding into upstream policy level outcomes.	Project data and final reports analyzed; Meetings with project participants conducted; Policy amendments tested with the relevant pilot project partners.	MOEF	Activity 3.3.1. Document lessons learned (UNDP).	20,800	38,400	20,800	
	National policy makers informed to facilitate incorporation of successful new strategies and/or to revise present strategies. Outcome 1 outputs taken into account; Information provided to UNDP's Adaptation Learning Mechanism.	MOEF	Activity 3.3.2. Develop and implement a dissemination strategy (UNDP).	19,400	58,200	22,400	
	Technical needs determined; relevant staff selected; technical assistance provided.	MOEF	Activity 3.3.3. Provide technical assistance to the pilot projects (UNCT, UNEP).	20,000	20,000	23,000	

<b>JP Outcome 4. Climate change adaptation mainstreamed into UN programming framework in Turkey.</b>						
Output 4.1. Revision of UNDAF with a coordinated approach to mainstreaming climate change undertaken.	Consultative meetings held among UNCT and stakeholders.	UNCT	Activity 4.1.1. Hold consultative meetings among UNCT and stakeholders (UNCT, UNEP).	10,000	10,000	7,000
	UN programme staff trained on Climate Change Adaptation measures.	UNCT	Activity 4.1.2. Provide training on Climate Change Adaptation measures and on climate change related disaster management to UN Staff (UNCT, UNEP).			
	Each agency's adaptation to climate change section of UNDAF presented at the mid-term review meeting of UNDAF in 2008.	UNCT	Activity 4.1.3. Hold mid-term review meeting of UNDAF in 2008 (UNCT, UNEP).			
	Main conclusions on UNDAF review compiled.	UNCT	Activity 4.1.4. Validate conclusions of mid-term review meeting and attain signature on revised UNDAF (UNCT, UNEP).			
	UNDAF with amendments on climate change signed.	UNCT	Activity 4.1.5. Assess the options for outcome objectives through the UNEP - UNDP Partnership on Adaptation (CC - DARE) (UNCT, UNEP).			
Output 4.2. Screening mechanism on climate change (with a gender approach) agreed upon and established among UNCT agencies.	One climate change focal point per agency designated.	UNCT	Activity 4.2.1. Designation of focal point in each relevant agency (UNCT, UNEP).	6,000	6,000	8,000
	A group of projects/programs identified for climate change crosscutting review.	UNCT	Activity 4.2.2. Identify priority projects/programs for climate change crosscutting review (UNCT, UNEP).			
	The screening tool with a checklist applied to selected MDG-based programmes.	UNCT	Activity 4.2.3. Test screening tool using a project/programme design checklist on selected MDG-based programs (UNCT, UNEP).			
	The lessons learned from the screening exercise collected and used to further develop the tool.	UNCT	Activity 4.2.4. Document lessons learned from the screening exercise and use these to further develop the tool (UNCT, UNEP).			
	The screening tool for application to all MDG-based UN programmes officially validated.	UNCT	Activity 4.2.5. Validate screening tool for application to all MDG - based UN programmes (UNCT, UNEP).			
	UNCT Annual Reports prepared with Climate Change screening.	UNCT	Activity 4.2.6. Prepare UNCT Annual Reports on Climate Change screening (UNCT, UNEP).			
<b>Reporting</b>	UNDP			21,500	6,500	17,000
<b>Project Preparation/Formulation</b>	UNDP			20,000		
<b>Total without Management Fees (Overhead)</b>				<b>1,857,000</b>	<b>3,268,301</b>	<b>1,356,181</b>
<b>Administrative Agency Fee 1% of Project Cost</b>				18,570	32,683	13,562
<b>Management Fee (Overhead) 7% of Project Cost</b>				129,990	228,781	94,933
<b>TOTAL:</b>				<b>2,005,560</b>	<b>3,529,766</b>	<b>1,464,676</b>

## 6. Management and Coordination Arrangements

The management and coordination arrangements will follow the guidelines of the Operational Guidance Note for the Participating UN Organizations (MDG-F, 2 October 2007). The UNDP will provide support for programme oversight and coordination among participating UN organizations, including with UNEP a non-resident UN organization, in particular through the mainstreaming and cross cutting activities, training, advocacy campaigns, dissemination of lessons learned from community based pilot projects, as well as expert support from all UNCT agencies. The UN Country Team (UNCT) in Turkey consists of FAO, ILO, UNDP, UNFPA, UNHCR, UNIC, UNICEF, UNIDO, UNODC, WFP and WHO. Currently, the UNCT is operating one Joint Programme, i.e. the UN Joint Gender Programme.

The Ministry of Environment and Forestry (MOEF), together with the existing working groups of the Coordinating Board on Climate Change (CBCC), will be the leading executing agency for the technical components of the programme. The State Planning Organization (SPO), which is the purveyor of the national strategies to achieve MDGs in Turkey, will be responsible for overall coordination and execution of the policy related components. Other relevant ministries, such as the Ministry of Agriculture and Rural Affairs (MARA) and the Ministry of Industry and Trade (MIT) will ensure the technical support to programme implementation.

Each output of the Joint Programme will be managed by a designated UN agency. UNDP will act as the Administrative Agent (AA) of the Joint Programme and UNDP Turkey will support the executing agencies in the overall coordination of the outputs and management of administrative, financial and procurement issues related to project implementation. However, each designated UN Agency will be solely responsible for the implementation of their respective activities.

The Joint Programme, through UNDP Turkey, will benefit from the potential regional replication of the locally developed adaptation measures through the Mediterranean Action Plan, Plan Bleu and other regional partnerships. Opportunities to collaborate with local private sector and associations will be identified as appropriate to ensure the sustainability of programme outcomes.

### **Roles and responsibilities National Steering Committee (NSC) and Programme Management Committee (PMC)**

A National Steering Committee (NSC) will be established to provide oversight and strategic guidance to all joint programmes operating in Turkey. The NSC membership will be small, consisting of non-implementing parties to allow for independence. The NSC members will include at a minimum: a representative of the Turkish Government, a representative from Government of Spain and the UN Resident Coordinator (RC). The RC and the representative from the Government will co-chair the NSC, and can invite other NSC members from civil society and appropriate institutions. The NSC will meet semi-annually and will make decisions by consensus. The detailed composition and responsibilities of the NSC are presented in Annex J.

A Programme Management Committee (PMC) will be established to provide operational coordination to the Joint Programme. The membership will consist of participating UN organisations of the Joint Programme and relevant Turkish Government counterparts. The UN Resident Coordinator (RC) or his/her representative will chair the PMC. Other Joint Programme partners and experts will be invited to the PMC meetings as needed. The PMC will normally meet quarterly, but may have to meet more often depending on the need to address issues related directly to management and implementation of the programme. The PMC will select the Project Manager (PM) according to the UNDP Human Resource Rules and Regulations. The detailed responsibilities of the PMC are presented in Annex J, while the TORs for the PM are detailed in Annex L.

### **Role of Resident Coordinator**

The Fund will rely on UN Resident Coordinators (RC) to facilitate collaboration between Participating UN Organizations to ensure that the program is on track and that promised results are being delivered.

FAO, UNEP, UNDP and UNIDO will be responsible for:

- Ensuring professional and timely implementation of the activities and delivery of the reports and other outputs identified in this project document;
- Contracting and supervise qualified local and international experts; manage and be responsible of all financial administration, monitoring, reporting and procurement to realize the targets envisioned in the activities for which the respective UN agencies are responsible for;
- Carrying out all the necessary tasks and responsibilities to assist the UN Resident Coordinator;
- Appointing a responsible Programme Manager (who is not paid from the project) who will co-manage the project on behalf of the relevant UN agency.

The Project Manager of the Joint Programme, with appropriate support, will facilitate project implementation at the national level. He/she will prepare the workplan and oversee the execution of activities, be responsible for technical and methodological issues, carry out any reporting functions required for monitoring and evaluation of the project, and coordinate with governmental institutions, universities, NGOs, private sector partners, and other relevant stakeholders which will be identified at the beginning of the project. During project execution, the functions of the Project Manager will be progressively integrated into the regular programmes of the host institutions to ensure sustainability.

A Technical Advisory Committee (TAC) will be established to provide technical advice to support project implementation. Members of the PMC will not serve on the TAC except technical experts from relevant organizations. This committee will be jointly coordinated by the PMC and the Programme Manager of the Joint Programme, and will consist of about 8-10 national and international experts. These experts will be elected according to their scientific contributions to sustainable development and climate change topics. The Joint Programme will have four main foci: 1) water stress; 2) climate related disaster risk reduction; 3) coastal erosion and 4) natural resource management. Each theme will be assigned a task force within the Technical Advisory Committee (TAC). The TORs for the TAC are detailed in Annex L.

All of the project proposals submitted in Outcome 3 will be reviewed and evaluated by the TAC with support from PMC and UNDP on issues such as procurement as required. The TAC members should attend all meetings. Any absence must be recorded and explained in the Evaluation Report. Any TAC member who withdraws from the TAC for whatever reason must be replaced following the standard procedure for appointing members of the TAC, as explained in pertinent section of the UN rules. The chairman of the evaluation committee determines to what extent the evaluation process must be restarted. Such decision as well as any decision relating to the replacement of a committee member must be recorded and justified in the evaluation report. All voting members of the TAC have equal voting rights. The names and functions of all those involved in the evaluation process must be recorded in the Evaluation Report. The TAC should be formed early enough to ensure the availability of the designated members (and any observer nominated by the PMC, in the case of decentralized ex-ante control) during the period necessary to prepare and conduct the evaluation process. The evaluation of proposals should be completed as soon as possible.

A UN thematic group on Climate Change will be established and coordination with existing UN thematic group such as gender, youth and poverty and rural development will be ensured.

### **Cash Transfer Mechanism:**

FAO, UNDP, UNEP and UNIDO are the implementation/execution partners for this Joint Programme. UNDP is the only Ex-Com Agency in that regard. Among the cash transfer

mechanisms stated through Harmonized Approach to Cash Transfer (HACT), namely "Direct Cash Transfer to Implementing Partner", "Direct Payment to Vendors", "Reimbursement of Costs Advanced by Implementing Partner", "Direct Agency Implementation", UNDP shall opt for "Direct Payment to Vendors" or "Direct Agency Implementation" as appropriate. Based on the findings of the micro assessment vis-à-vis Implementing Partners, different cash transfer approaches may be adopted during the course of implementation as needed.

## 7. Fund Management Arrangements

The fund management arrangements will follow the guidelines of the MDG-F Operational Guidance Note for the Participating UN Organizations (MDG-F, 2 October 2007). The administration of the programme follows the "Pass-Through" fund management option, in accordance with the planning and financial procedures as explained in the United Nations Development Groups (UNDG) Guidance Note on Joint Programming. As per these guidelines, the arrangements for management, review and coordination should be documented, including the roles and responsibilities of the Administrative Agent (AA).

UNDP will act as AA for the Joint Programme in accordance with the policy of 26 June 2007 on "Accountability when UNDP is acting as AA in UNDP Multi-Donor Trust Funds and/or UN Joint Programmes". As per this policy, accountability for UNDP's AA function rests with the Executive Coordinator of the Millennium Development Trust Fund (MDTF) Office. However, specific tasks related to the Administrative Agent role can be performed by UNDP Resident Representative with explicit delegation and authorization from the Executive Coordinator of the MDTF Office.

The AA will be responsible for:

- Disbursing approved resources to the participating UN organizations;
- Consolidating the Joint Programme narrative report with financial reports from Participating UN Organizations (including analysis of financial and narrative data);
- Providing narrative reports to the National Steering Committee;
- Providing the Consolidated Joint Programme Progress Reports, and other reports as appropriate to the donor, i.e. the Fund Steering Committee through the Secretariat;
- Streamlining the reporting systems and harmonizing reporting formats based on joint programming best practices;
- Facilitating the work of the participating UN organizations to ensure adherence to a results based reporting structure around outcomes and outputs;
- Ensuring that fiduciary fund management requirements are adhered to.

Each Participating UN Organizations (PO) assumes complete programmatic and financial responsibility for the funds disbursed to it by the Administrative Agent (AA) and can decide on the execution process with its partners and counter parts following the organization's own applicable regulations.

Each PO establishes a separate ledger account for the receipt and administration of the funds disbursed to it by the AA. Pos are requested to provide certified financial reporting according to the budget template provided in the MDG-F Operational Guidance Note issued by the MDTF Office and are entitled to deduct their indirect costs on contributions received not exceeding 7 per cent of the Joint Programme budget in accordance with the provisions of the MDG-F MOU signed between the AA and the POs.

Subsequent installments will be released in accordance with Annual Work Plans approved by the NSC. The release of the funds is subject to meeting a **minimum commitment threshold** (legally binding contracts signed, including multi-year commitments which may be disbursed in future years)<sup>7</sup> of 70% of the previous fund released to the POs combined. If the 70% threshold is not met for the programme as a whole, funds cannot be released to any organizations, regardless of the individual organization's performance.

On the other hand, the following years advance can be requested at any point after the combined commitment against the current advance has exceeded 70% and the work plan requirements have been met. If the overall commitment of the programme reaches 70% before the end of the twelve-month period, the POs may after endorsement by the NSC request the MDTF Office, through the RC to release the next installment ahead of schedule.

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<sup>7</sup> Please note that in the earlier version of the MDG-F Operational Guidance Note issued by MDTF Office reference was made to expenditure. For administrative proposals this was changed to a minimum **commitment** threshold.

## 8. Feasibility, Risk management and Sustainability of Results

At the development objective level, risks to the successful completion of the programme include uncertainties in assuring continuous support by national government due to administration turnover during the programme period. The involvement of local communities, key stakeholders and political partners, as well as the establishment of appropriate mechanisms to conduct a participatory process from the very beginning of the programme, will help to minimize the risk of failure.

At the immediate objective level, programme risks are linked to the success or failure in the creation or strengthening of national capacity that are fundamental to the appropriate development of the various activities. For instance, risks are associated with the adoption potential of the policies and measures identified by the affected vulnerable populations. In this regard, a number of programme activities are planned to minimize the above mentioned risks by:

- analyzing determinants of adaptive capacity of key stakeholder groups;
- targeting stakeholders who need to act urgently and convince them of the merits to do so; and
- developing adaptation policies and measures consistent with social, economic, and political objectives, and the development context of the country.

Sustainability is enhanced by the strong emphasis on local, regional and national cooperation, exchange, interlinkages and networking. Through these efforts, individual as well as institutional capacity will be created and strengthened in national institutions. Through the iterative, participatory process of the programme, individual ownership as well as ownership within the country will be fortified.

Capacity building in adaptation is an ongoing process. It is therefore necessary to create an ongoing network for information exchange and dissemination that continues after the programme has formally ended. Continuous training, education and post – graduate programs within the framework of cooperative national or regional agreements, in collaboration with the private sector, universities, research centers and NGOs after the programme has finished will further enhance the sustainability of the programme.

A national plan and agreement with the relevant vulnerable populations, political parties, experts, small farmers, cooperatives, associations, academia, private firms, municipalities, relevant ministries, and NGOs shall be prepared and agreed upon. These agreements will highlight the risks, impacts and damages of climate variability and change, the importance of implementing adaptation measures and the linkages to sustainable development. The agreements should also address national commitment for the implementation of the adaptation policies developed and proposed by the programme.

The Joint Programme selected the Seyhan river basin as the pilot region to develop and test the Adaptation Policy Framework for prioritized human systems within the programme. To promote replicability of the programme in other vulnerable regions, the applied methodologies, achievements and programme results will be widely disseminated by the corresponding agencies and the national climate change coordinators in international conferences, workshops and through publications.

The diversity of the pilot region in terms of geographical, physical, socio-economic and cultural factors will most likely lead to the development of a flexible Adaptation Policy Framework. Other regions in the nation will be able to take this elaborated framework and refine it according to their needs and requirements. It is expected that at least one other region can participate in similar programmes. In this way, the achievements of the completed programme and the strategies of adaptation will contribute to the programming of the Second National Communication. Additionally, the ongoing project “National Climate Change Action Plan” between the Ministry of Environment and Forestry and UNDP Turkey will both benefit from as well as facilitate the sustainability of the outcomes of the Joint Programme.



## 9. Accountability, Monitoring, Evaluation and Reporting

The MDTF Office is responsible for the annual Consolidated Joint Programme Progress Report, which will consist of three parts:

*AA Management Brief:* The Management brief consists of analysis of the certified financial report and the narrative report. The management brief will identify key management and administrative issues, if any, to be considered by the NSC.

*Narrative Joint Programme Progress Report:* This report is produced through an integrated Joint Programme reporting arrangement. The report should be reviewed and endorsed by the PMC before it is submitted to the MDTF Office on 28 February of each year.

*Financial Progress Report:* Each Participating UN Organization will submit to the MDTF Office a financial report stated expenditures incurred by each programme during the reporting period. The dead – line for this report is 31 March.

In addition, the Joint Programme Document should note that the quarterly updates will be made available to the donor and the Joint Programme will have a mid-term review and a final evaluation. The mid-term review will be organized by the MDG-F Secretariat.

Project monitoring and evaluation will be conducted in accordance with established UN MDG-F operational procedures and provided by the PMC and the UNDP Country Office (UNDP-CO) with support from the responsible agencies. The Programme Monitoring Framework (logframe) Matrix provides a summary of outcomes, outputs, activities, indicators, and means of verification to be performed by the project. These form the basis on which the project's monitoring and evaluation system will be built and will be further refined during the inception phase of the Joint Programme. The PMC, led by the PM, will be responsible for monitoring the progress of the activities in the logframe and of overseeing the collection of information against indicators. These will be reported on annually to the National Steering Committee. These annual reports will include a collection of lessons learned, risks and a mitigation plan (adaptive management) for activities that are not on track.

Workshops held during the inception phase of the programme will assist the PMC and relevant stakeholders to understand and take ownership of the programme's goals and objectives, as well as to finalize the project's first Annual Work Plan (AWP) on the basis of the logframe matrix. This will include reviewing the logframe (specifically the indicators, and means of verification), imparting additional detail as needed, and on the basis of this exercise finalizing an AWP with precise and measurable performance indicators that are consistent with the expected outcomes for the project.

A Joint Programme Inception Report will be prepared immediately following the inception workshops. The report will include: i) a detailed first year AWP divided in quarterly time-frames detailing the activities and progress indicators that will guide implementation during the first year of the programme; ii) dates of specific field visits, support missions from the PMC or consultants; iii) the detailed budget for the first full year of implementation, prepared on the basis of the AWP; iv) time-frames for meetings of the PMC and NSC; v) monitoring and evaluation requirements to effectively measure performance during the targeted 12 month time-frame; vi) a more detailed narrative on the institutional roles, responsibilities, coordinating actions and feedback mechanisms of programme partners; vii) progress to date on programme establishment and start-up activities and; viii) an update of any changed external conditions that may effect programme implementation. When finalized, the report will be circulated to programme partners who will be given a period of one calendar month in which to respond with comments or queries.

Day-to-day monitoring of implementation progress will be the responsibility of the PM. The PM will inform the PMC of any delays or difficulties faced during implementation so that the appropriate support or corrective measures can be adopted in a timely fashion.

Periodic monitoring of implementation progress will be undertaken by the PMC through quarterly meetings with the PM, or more frequently as deemed necessary. The PMC, as appropriate, will conduct at least semi-annual visits to field sites, based on an agreed upon schedule to be detailed in the Inception Report. A Field Visit Report will be prepared by the PMC and circulated to NSC no less than one month after the visit to the site.

The monitoring of the Joint Programme is devised to follow the programme's performance and achievement of expected results, and provide external input. The Joint Programme will also undergo a final evaluation to assess the achievement of results and impact of the programme in view of the overall development objective and outcomes identified.

Expected Results (Outcomes & outputs)	Indicators (with baselines & indicative timeframe)	Means of verification	Collection methods (with indicative time frame & frequency)	Responsible Agency	Risks & assumptions
<b>JP. Outcome 1. Climate change adaptation mainstreamed in Turkey's development plans.</b>					
<b>JP. Outcome 1. Climate change adaptation mainstreamed in Turkey's development plans.</b>	<p><b>Indicators:</b> Number of references to adaptation to climate change or climate change risks in policies, development plans and programmes with a special focus on gender analysis.  <b>Baseline:</b> No existence of such references  <b>Timeframe:</b> 2008-2010</p>	Policies, development plans and programmes.	Collected for regular project management reporting system. <b>Timeframe/Frequency:</b> 2008-2010/midterm evaluation.	UNEP/MOEF UNIDO/MIT UNDP/MOEF	The political climate remains stable. The macro-economic situation remains stable. The government adherence to the "Adaptation to climate change" priority remains committed.
Output 1.1. A plan for education, training and public awareness on adaptation to climate change (UNFCCC Article 6) to support the objectives of the Joint Programme developed and implemented.	<p><b>Indicators:</b> Number of references to adaptation to climate change or climate change risks in policies, development plans and programmes with a special focus on gender analysis.  <b>Baseline:</b> No existence of such references.  <b>Timeframe:</b> 2008</p>	Number of education material prepared; number of trainings completed; number of participants.	Collected for regular project management reporting system. <b>Timeframe/Frequency:</b> 2008/midterm evaluation.	UNEP/MOEF	The government adherence to the "Adaptation to climate change" priority remains committed.
Output 1.2. A Long – term knowledge in Turkish institutions developed. This serves both to develop capacity in country, and to increase Turkey's profile in international climate change collaboration, including IPCC.	<p><b>Indicators:</b> A knowledge hub for national best practices on adaptation to climate change.  <b>Baseline:</b> No existence of such references.  <b>Timeframe:</b> 2008</p>	Reports of the design, test, deployment, maintenance	Collected for regular project management reporting system. <b>Timeframe/Frequency:</b> 2008/midterm evaluation.	UNEP/MOEF	Sufficient importance attached to knowledge improvement and ownership.
Output 1.3. National adaptation to climate change strategy developed and submitted to the government of Turkey for consideration. This will serve as a basis for altering existing policies and legislative frameworks.	<p><b>Indicators:</b> A new high – level Adaptation Climate Change task force.  <b>Baseline:</b> 8 task force on climate change policy, but none on adaptation.  <b>Timeframe:</b> 2008-2010</p>	Recommendation to the central government, thematic publications on adaptation to climate change.	Thematic tasks force meetings minutes; workshops; regular project management reporting system. <b>Timeframe/Frequency:</b> 2008-2010/midterm evaluation.	UNEP/MOEF	Various relevant ministries will consider the strategy.

<p>Output 1.4. Amendes to policy and appropriate policy tools will be developed and proposed for reducing vulnerability to climate change through the government's development activities and private sector. A package of policies, legislative, regulatory and other policy instruments is produced and agreed to be submitted to the Government of Turkey for consideration to address climate change risks foreseen in the climate change models/scenarios to be developed during the programme implementation.</p>	<p><b>Indicators:</b> Priority analysis of the most vulnerable sectors and their legal and policy's adaptive capacity to climate change; Series of legal and policy review papers in terms of adaptation to climate change. <b>Baseline:</b> four themes foreseen in the project document. <b>Timeframe:</b> 2008-2009.</p>	<p>Questionnaires, workshops, thematic task force meetings.</p>	<p>Thematic tasks force meetings minutes; workshops; regular project management reporting system. <b>Timeframe/Frequency:</b> 2008-2009/midterm evaluation.</p>	<p>UNEP/MOEF</p>	<p>The government will consider and adopt the recommendations and will consider the legal and policy draft for adoption.</p>
<p>Output 1.5. Industrial practices amended to reduce vulnerability to climate change.</p>	<p><b>Indicators:</b> Business plan for an eco-efficiency center; 6 demonstration sites; Lessons learnt. <b>Baseline:</b> No eco – efficiency center existing. <b>Timeframe:</b> 2008-2009.</p>	<p>Workshops, questionnaires, individual consultations, agreements on technology transfer and investment.</p>	<p>Collected for regular project management reporting system. <b>Timeframe/Frequency:</b> 2008-2010/midterm evaluations.</p>	<p>UNIDO/MIT</p>	<p>Active participation of private sector partners.</p>
<p><b>JP Outcome 2. Institutional capacity developed for managing climate-risks, including disasters.</b></p>					
<p><b>JP Outcome 2. Institutional capacity developed for managing climate-risks, including disasters.</b></p>	<p><b>Indicators:</b> Number of staff trained in data management that pertains to managing climate risks.  Number of local stakeholders trained to utilize information from early warning systems and seasonal forecasts promoting equal participation of men and women. <b>Baseline:</b> Early Warning Systems and seasonal forecasts to assist end users to adapt to climate change are in the first stages of development in Turkey, and are not widely used. <b>Timeframe:</b> 2008-2009.</p>	<p>Training material; evaluation tests; and attendance sheets.</p>	<p>Collected during workshops and compiled for the regular project management reporting system. <b>Timeframe/Frequency:</b> 2008-2010/midterm evaluations.</p>	<p>FAO/MARA UNDP/MOEF</p>	<p>Public institutions are willing to actively participate and collaborate on the programme.</p>

<p>Output 2.1. Technical capacity for data management developed. This will improve the quality of drought and flood early warnings across Turkey. UNEP's Division of Early Warning and Assessment can provide guidance.</p>	<p><b>Indicators:</b> Number of staff trained in data management that pertains to managing climate risks.</p> <p>Number of local stakeholders trained to utilize information from early warning systems and seasonal forecasts promoting equal participation of men and women.</p> <p><b>Baseline:</b> Early Warning Systems and seasonal forecasts to assist end users to adapt to climate change are in the first stages of development in Turkey, and are not widely used.</p> <p><b>Timeframe:</b> 2008-2009.</p>	<p>Training material; evaluation tests; and attendance sheets.</p>	<p>Collected during workshops and compiled for the regular project management reporting system.</p> <p><b>Timeframe/Frequency:</b> 2008-2010/midterm evaluations.</p>	<p>FAO/MARA/MOEF</p>	<p>Public institutions are willing to actively participate and collaborate on the programme.</p>
<p>Output 2.2. Technical capacity for analysis and interpretation of data developed.</p>	<p><b>Indicators:</b> Number of staff trained in data management that pertains to managing climate risks.</p> <p>Number of local stakeholders trained to utilize information from early warning systems and seasonal forecasts promoting equal participation of men and women.</p> <p><b>Baseline:</b> Climate change data analysis, forecasts and interpretation to assist end users to adapt to climate change are in the first stages of development in Turkey, and are not widely used.</p> <p><b>Timeframe:</b> 2008-2010.</p>	<p>Training material; evaluation tests; and attendance sheets.</p>	<p>Collected during workshops and compiled for the regular project management reporting system.</p> <p><b>Timeframe/Frequency:</b> 2008-2010/midterm evaluations.</p>	<p>UNDP/ITU</p>	<p>Sufficient importance attached by the scientific research community and government.</p>

<p>Output 2.3. Capacity of end users to respond to early warnings developed.</p>	<p><b>Indicators:</b> Number of staff trained in data management that pertains to managing early warning systems. Number of local stakeholders trained to utilize information from early warning systems and seasonal forecasts promoting equal participation of men and women. <b>Baseline:</b> Early Warning Systems and seasonal forecasts to assist end users to adapt to climate change are in the first stages of development in Turkey, and are not widely used. <b>Timeframe:</b> 2008-2009.</p>	<p>Training material; evaluation tests; and attendance sheets.</p>	<p>Collected during workshops and compiled for the regular project management reporting system. <b>Timeframe/Frequency:</b> 2008-2009/midterm evaluations.</p>	<p>UNDP/MOEF</p>	<p>The relevant ministries and end users will demonstrate increasing importance of the early warning system ownership for daily decision making process.</p>
<p><b>JP Outcome 3. Capacity for community-based adaptation in the Seyhan River Basin developed</b></p>					
<p><b>JP Outcome 3. Capacity for community-based adaptation in the Seyhan River Basin developed</b></p>	<p><b>Indicators:</b> Number of adaptation measures implemented at the local level with a special focus on gender analysis. <b>Baseline:</b> Although the ICCAP research has highlighted the vulnerability of the region to climate change, no adaptation projects have been initiated to date. <b>Timeframe:</b> 2008-2010.</p>	<p>Number of pilot projects selected. Number of best practices identified. One dissemination strategy developed.</p>	<p>Collected for regular project management reporting system. <b>Timeframe/Frequency:</b> 2008-2010/midterm evaluations.</p>	<p>UNDP/MOEF</p>	<p>Elected local officials remain committed to agreements between the programme and communities</p>
<p>Output 3.1. Proposals for community-based adaptation projects developed and selected.</p>	<p><b>Indicators:</b> Number of pilot projects selected and adaptation measures implemented at the local level with a special focus on gender analysis. <b>Baseline:</b> Although the ICCAP research has highlighted the vulnerability of the region to climate change, no adaptation projects have been initiated to date. <b>Timeframe:</b> 2008-2010.</p>	<p>Local Plans approved at the local level; minutes of meetings for agreement on plans.</p>	<p>Collected for regular project management reporting system. <b>Timeframe/Frequency:</b> 2008-2010/midterm evaluations.</p>	<p>UNDP/MOEF</p>	<p>Lessons learned from the pilot project initiatives generate support in the national government, and among other major donors</p>

Output 3.2. Pilot projects awarded, initiated, monitored and evaluated.	<p><b>Indicators:</b> Number of adaptation measures implemented at the local level with a special focus on gender analysis; Number of workshops on adaptation to climate change; Number of workshops on procurement, project implementation cycle. <b>Baseline:</b> Although the ICCAP research has highlighted the vulnerability of the region to climate change, no adaptation projects have been initiated to date. <b>Timeframe:</b> 2008-2010.</p>	Training material; evaluation tests; and attendance sheets.	Collected for regular project management reporting system. <b>Timeframe/Frequency:</b> 2008-2010/midterm evaluations.	UNDP/MOEF	Effective and full cooperation from pilot project partners.
Output 3.3. Lessons captured and up – scaled by feeding into upstream policy level outcomes.	<p><b>Indicators:</b> Number of adaptation measures implemented at the local level with a special focus on gender analysis; Number of workshops on best practices implemented locally; <b>Baseline:</b> No best practices on adaptation to climate change locally. <b>Timeframe:</b> 2009-2010.</p>	Pilot projects summary reports; workshops; best practices.	Collected for regular project management reporting system. <b>Timeframe/Frequency:</b> 2009-2010/midterm evaluations.	UNDP/MOEF	High impact of climate change issues over public opinion in rural areas.
<b>JP Outcome 4. Climate change adaptation mainstreamed into UN programming framework in Turkey</b>					
<b>JP Outcome 4. Climate change adaptation mainstreamed into UN programming framework in Turkey</b>	<p><b>Indicators:</b> Number of UN programmes/projects climate proofed. Number of staff trained. <b>Baseline:</b> Adaptation to climate change is not part of the UN programming framework at present. <b>Timeframe:</b> 2008-2010.</p>	UNDAF document; screening tools; decision making minutes of meetings; Number of Questionnaires. UNCT reports.	UNDAF approved by end 2008; (collected and compiled by end 2008 and with a yearly frequency) Please reword the phrase in brackets. I am not sure what it means. What will be collected and compiled?.	UNCT	Willingness and commitment from all UNCT agencies is maintained.
Output 4.1. Revision of UNDAF with a coordinated approach to mainstreaming climate change undertaken.	<p><b>Indicators:</b> Number of references to adaptation to climate change or climate change risks in UN programming framework and projects. Number of staff trained. <b>Baseline:</b> Adaptation to climate change is not part of the UN programming framework at present. <b>Timeframe:</b> 2008-2010.</p>	UNDAF document; screening tools; decision making minutes of meetings; UNCT reports.	UNDAF approved by end 2008; climate change proofing projects assessed and compiled.	UNCT	Willingness and commitment from all UNCT agencies is maintained.

<p>Output 4.2. Screening mechanism on climate change (with a gender approach) agreed upon and established among UNCT agencies.</p>	<p><b>Indicators:</b>  Number of focal points in each relevant agency.  Number of priority projects for climate change crosscutting identified and reviewed.  Number of tests of screening tools implemented.  <b>Baseline:</b> Adaptation to climate change is not part of the UN programming framework at present.  <b>Timeframe:</b> 2008-2010.</p>	<p>UNDAF document;  screening tools;  decision making minutes of meetings;  UNCT reports.</p>	<p>UNDAF approved by end 2008; climate change proofing projects assessed and compiled.</p>	<p>UNCT</p>	<p>Willingness and commitment from all UNCT agencies is maintained.</p>
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## 10. Ex Ante Assessment of Cross-cutting Issues

### **Gender and Poverty Reduction:**

As predicted by the Intergovernmental Panel on Climate Change (IPCC), "climate change impacts will be differently distributed among different regions, generations, age classes, income group, occupations and genders" (IPCC, 2001). The IPCC also notes: "the impacts of climate change will fall disproportionately upon developing countries and the poor persons within all countries, and thereby exacerbate inequities in health status and access to adequate food, clean water, and other resources." People living in poverty are more vulnerable to environmental changes. The gender-poverty links show that 70 percent of the poor in the world are women. When natural disasters and environmental change happen, women and men are affected differently because of traditional, socially based roles and responsibilities.

In traditional societies as in Turkey, women are even more vulnerable to the impacts of climate change because they are currently excluded of decision making at different levels (with a rate of 2 % in municipal assemblies and 9.1 % at the Turkish Grand National Assembly for example). They are less likely to receive critical information about climate and are less able to respond because of restrictions on mobility.

The project will incorporate and mainstream gender through: (1) incorporating components of gender analysis at all levels of assessment, consultation and baseline studies; (2) including gender disaggregated data in all the reporting mechanism, as a principle; (3) promoting the inclusiveness of women at the local level in all the awareness campaigns making the information accessible to women; and (4) by promoting the equal participation of men and women in all the conferences, trainings and workshops to empower women through capacity building and technical training and therefore increase women's capacity to effectively participate in policy-making and decision-making bodies.

### **Ecosystem Services and Land Management:**

The concept of ecosystem services has been developed by the Millennium Ecosystem Assessment (2001)<sup>8</sup> to define the types of services provided by the ecosystem, such as climate regulation, flood management and food production. It is a useful approach as a cross cutting issue for vulnerability reduction as it approaches environmental management as a whole system rather than as a separate sector.

Climate change relates to ecosystem services in two ways: i) climate change can negatively impact an ecosystem (e.g. reduce the carrying capacity of a rangeland) and; ii) resilient ecosystems serve to buffer against climate changes. For instance, peatlands serve an important function to regulate against both floods and droughts. Important and sensitive ecosystems will be identified for targeted interventions of the Joint Programme through its pilot activities.

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<sup>8</sup> <http://www.millenniumassessment.org/en/index.aspx>

## 11. Legal Context or Basis of Relationship

The cooperation or assistance agreements<sup>9</sup>, which are the legal basis for the relationships between the Government and each of the UN Organizations participating<sup>10</sup> in this Joint Programme, will apply. Each agency's activities under this Joint Programme will be governed by their respective applicable basic and other agreements.

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<sup>9</sup> Such as: the Basic Cooperation Agreement for UNICEF; Standard Basic Assistance Agreement for UNDP, which also applies to UNFPA; the Basic Agreement for WFP; as well as the Country Programme Action Plan(s) where they exist; and other applicable agreements for other participating UN organizations.

<sup>10</sup> Including Specialised Agencies and Non Resident Agencies who are participating.

## 12. Annex A: Work plan

The annual workplan and budget for the programme for the first year of implementation (2008) is given below:

Annual Targets	Activities	TIME FRAME				UN AGENCY	RESPONSIBLE PARTY	PLANNED BUDGET		Amount for the First Year of Implementation (Y1)
		Year 1						Source of Fund	Budget Description	
		Q1	Q2	Q3	Q4					
<b>JP Output 1.1. A plan for education, training and public awareness on adaptation to climate change (UNFCCC Article 6) to support the objectives of the Joint Programme Developed and implemented.</b>										
Training needs assessed; target groups identified;	Activity 1.1.1. Assess the training needs and develop a plan for meeting them.					UNEP	MOEF		Personel I	5,000
									Personel L	0
									Contracts I	0
									Contracts L	40,000
									Train/Conf.	2,000
									Supplies	2,000
									Equipment	0
									Travel	1,000
									Misc.	0
									<b>Total</b>	<b>50,000</b>
Training material prepared; workshops completed.	Activity 1.1.2. Implement the plan.					UNEP	MOEF		Personel I	12,500
									Personel L	12,500
									Contracts I	25,000
									Contracts L	25,000
									Train/Conf.	15,000
									Supplies	5,000
									Equipment	0
									Travel	2,500
									Misc.	2,500
									<b>Total</b>	<b>100,000</b>
<b>JP Output 1.2. Long term knowledge in Turkish institutions developed. This serves both to develop capacity in country, and to increase Turkey's profile in international climate change collaboration, including IPCC.</b>										
Identify schools and Universities; hold consultations with target groups; prepare training materials.	Activity 1.2.1. Facilitate student training at school and university levels.					UNDP	MOE		Personel I	
									Personel L	12,505
									Contracts I	568
									Contracts L	4,074
									Train/Conf.	526
									Supplies	1,137
									Equipment	1,026
									Travel	2,143
									Misc.	5,720
									<b>Total</b>	<b>27,700</b>
Training material prepared; target groups identified; workshops organized.	Activity 1.2.2. Build capacity for research and knowledge on adaptation to climate change in Turkish institutions.					UNEP	MOEF		Personel I	5,000
									Personel L	0
									Contracts I	20,000
									Contracts L	30,000
									Train/Conf.	0
									Supplies	0
									Equipment	0
									Travel	10,000
									Misc.	0
									<b>Total</b>	<b>65,000</b>

**JP Output 1.3 National adaptation to climate change strategy developed and submitted to the Government of Turkey for consideration. This will serve as a basis for altering existing policies and legislative frameworks.**

<i>Literature review completed; consultation with scientific committee organized.</i>	<i>Activity 1.3.1. Review and synthesise existing literature on vulnerability and impact of climate change in relevant sectors and regions.</i>				UNEP	MOEF	Personel I	1,000
							Personel L	0
							Contracts I	0
							Contracts L	6,000
							Train/Conf.	0
							Supplies	1,000
							Equipment	0
							Travel	0
							Misc.	2,000
							<b>Total</b>	<b>10,000</b>
<i>Target groups assessed; training on APFCC is prepared and delivered.</i>	<i>Activity 1.3.2. Undertake participatory vulnerability assessment with key stakeholders in relevant regions (including the Seyhan River Basin) and sectors. The Adaptation Policy Frameworks for Climate Change guidelines will be used.</i>				UNEP	MOEF	Personel I	2,000
							Personel L	3,000
							Contracts I	0
							Contracts L	10,000
							Train/Conf.	0
							Supplies	0
							Equipment	0
							Travel	5,000
							Misc.	0
							<b>Total</b>	<b>20,000</b>
<i>Thematic tasks force meetings organized and results are assessed.</i>	<i>Activity 1.3.3. Prepare Strategy with government and support from FAO, UNDP, UNIDO.</i>				UNEP	MOEF	Personel I	5,000
							Personel L	5,000
							Contracts I	0
							Contracts L	0
							Train/Conf.	0
							Supplies	0
							Equipment	0
							Travel	0
							Misc.	0
							<b>Total</b>	<b>10,000</b>
<i>Initiate dissemination strategy plan preparation; consultation meetings organized.</i>	<i>Activity 1.3.4. Disseminate strategy proposal to appropriate stakeholders for feedback.</i>				UNEP	MOEF	Personel I	0
							Personel L	3,000
							Contracts I	0
							Contracts L	0
							Train/Conf.	0
							Supplies	0
							Equipment	0
							Travel	0
							Misc.	2,000
							<b>Total</b>	<b>5,000</b>
<i>Workshops and consultation with relevant stakeholders are organized, results evaluated and reflected into the annual progress report.</i>	<i>Activity 1.3.5. Revise the strategy proposal based on feedback.</i>				UNEP	MOEF	Personel I	1,000
							Personel L	3,000
							Contracts I	0
							Contracts L	0
							Train/Conf.	0
							Supplies	0
							Equipment	0
							Travel	0
							Misc.	0
							<b>Total</b>	<b>4,000</b>
<i>Submit proposal.</i>	<i>Activity 1.3.6. Submit to the Government of Turkey for consideration.</i>				UNEP	MOEF	Personel I	0
							Personel L	1,000
							Contracts I	0
							Contracts L	0
							Train/Conf.	0
							Supplies	0
							Equipment	0
							Travel	0
							Misc.	0
							<b>Total</b>	<b>1,000</b>

**JP Output 1.4. Amendments to policy and appropriate policy tools will be developed and proposed for reducing vulnerability to climate change through the governments development activities and the private sector. A package of policies, legislative, regulatory and other policy instruments is produced and agreed to be submitted to the Government of Turkey for consideration to address climate change risks foreseen in the climate change models/scenarios to be developed during the programme implementation.**

<i>Thematic tasks force meetings organized and results are assessed.</i>	<i>Activity 1.4.1. Undertake a legal and institutional review i.e. assess the Turkish legal and policy frameworks to identify the key entry points for adaptation mainstreaming (with a particular focus on the three themes mentioned above and cross cutting tools such as Environmental Impact Assessment (EIA)).</i>				UNEP	MOEF	Personel I	5,000
							Personel L	1,000
							Contracts I	35,000
							Contracts L	10,000
							Train/Conf.	10,000
							Supplies	3,000
							Equipment	1,000
							Travel	5,000
							Misc.	0
							<b>Total</b>	<b>70,000</b>
<i>Organize consultative meetings with the relevant ministries for approval.</i>	<i>Activity 1.4.2. Submit proposals developed in Activity 1.4.1 for integrating climate change adaptation into the national legal framework to relevant stakeholders.</i>				UNEP	MOEF	Personel I	5,000
							Personel L	1,000
							Contracts I	35,000
							Contracts L	10,000
							Train/Conf.	10,000
							Supplies	3,000
							Equipment	1,000
							Travel	5,000
							Misc.	0
							<b>Total</b>	<b>70,000</b>
<i>Training material prepared; workshops completed.</i>	<i>Activity 1.4.3. Undertake targeted capacity building for those responsible for implementing changes as they relate to agriculture (with a particular focus on woman's groups).</i>				FAO	MOEF	Personel I	1,500
							Personel L	2,000
							Contracts I	0
							Contracts L	1,000
							Train/Conf.	1,000
							Supplies	500
							Equipment	0
							Travel	1,000
							Misc.	500
							<b>Total</b>	<b>7,500</b>
<i>Collection of information and relevant documentation.</i>	<i>Activity 1.4.4. Undertake targeted capacity building for those responsible for implementing changes as they relate to industry.</i>				UNIDO	MIT	Personel I	1,000
							Personel L	2,000
							Contracts I	0
							Contracts L	1,000
							Train/Conf.	1,000
							Supplies	0
							Equipment	0
							Travel	2,000
							Misc.	500
							<b>Total</b>	<b>7,500</b>
<i>Training material prepared; workshops completed.</i>	<i>Activity 1.4.5. Undertake targeted capacity building for those responsible for implementing changes as they relate to sectors other than agriculture and industry.</i>				UNEP	MOEF	Personel I	5,000
							Personel L	5,000
							Contracts I	10000
							Contracts L	20000
							Train/Conf.	10000
							Supplies	5000
							Equipment	0
							Travel	5,000
							Misc.	0
							<b>Total</b>	<b>60,000</b>

**JP Output 1.5. Industrial practices amended to reduce vulnerability to climate change.**

<i>Business for eco-center prepared, staff selected, process to be altered identified, target firms identified.</i>	<i>Activity 1.5.1. Prepare a business plan for an eco-efficiency centre which focuses on adaptation of industry to climate change-risks, especially reduction of water consumption.</i>				UNIDO	MIT	Personel I	5,000
							Personel L	10,000
							Contracts I	0
							Contracts L	0
							Train/Conf.	0
							Supplies	0
							Equipment	2,000
							Travel	15,000
							Misc.	2,000
							<b>Total</b>	<b>34,000</b>
<i>Training of selected staff on environmentally friendly production; plant assessment (EIA) in relation to water consumption.</i>	<i>Activity 1.5.2. The eco-efficiency centre, with 6 demonstration sites to reduce water consumption established.</i>				UNIDO	MIT	Personel I	15,000
							Personel L	80,000
							Contracts I	0
							Contracts L	0
							Train/Conf.	7,000
							Supplies	1,000
							Equipment	10,000
							Travel	5,000
							Misc.	1,000
							<b>Total</b>	<b>119,000</b>
<i>Identification of water saving processes for the 6 pilot firms; preparation of plant layouts; selection &amp; specification of equipment, procurement and assembling</i>	<i>Activity 1.5.3. Prepare report on lessons learnt, a cost - benefit analysis of processes implemented in the demonstration sites, the progress on MDG targets, and how the results can feed into the national policies. This information will be used as input into Output 1.4.</i>				UNIDO	MIT	Personel I	5,000
							Personel L	3,000
							Contracts I	0
							Contracts L	5,000
							Train/Conf.	2,000
							Supplies	2,000
							Equipment	80,000
							Travel	5,000
							Misc.	1,000
							<b>Total</b>	<b>103,000</b>

**JP Output 2.1. Technical capacity for data management developed. This will improve the quality of drought and flood early warnings across Turkey. UNEP's Division of Early Warning and Assessment can provide guidance.**

<i>Stakeholders analysis is completed. Assess the information gaps, reflects results in the annual progress report.</i>	<i>Activity 2.1.1. Identify the stakeholders at the local to decision-making levels, and identify their information needs.</i>				FAO	MARA/MOEF	Personel I	0
							Personel L	2,500
							Contracts I	0
							Contracts L	500
							Train/Conf.	0
							Supplies	500
							Equipment	0
							Travel	1,500
							Misc.	0
							<b>Total</b>	<b>5,000</b>
<i>Consultative meetings are organized to discuss and assess the gaps in technical capacity.</i>	<i>Activity 2.1.2. Assess the existing technical capacity and gaps for providing early warnings of floods and droughts.</i>				FAO	MARA/MOEF	Personel I	1,500
							Personel L	3,000
							Contracts I	0
							Contracts L	0
							Train/Conf.	0
							Supplies	0
							Equipment	0
							Travel	500
							Misc.	0
							<b>Total</b>	<b>5,000</b>
<i>Thematic tasks force meetings organized and results are assessed.</i>	<i>Activity 2.1.3. Prepare an implementation plan for an environmental information management system that can integrate available climate change data across all relevant institutions and disseminate this information to end-users.</i>				FAO	MARA/MOEF	Personel I	20,000
							Personel L	15,000
							Contracts I	0
							Contracts L	3,000
							Train/Conf.	15,000
							Supplies	5,000
							Equipment	20,000
							Travel	7,500
							Misc.	2,000
							<b>Total</b>	<b>87,500</b>

**JP Output 2.2. Technical capacity for analysis and interpretation of data developed.**

<i>Training material prepared; workshops completed.</i>	<i>Activity 2.2.1. Expand and strengthen MARA's Turkish Agriculture Drought Masterplan in order to increase capacity to deliver early warnings for floods and droughts. This activity will build on the multi-agency Global Terrestrial Observing System (GTOS).</i>				FAO	MARA	Personel I	12,000
							Personel L	10,000
							Contracts I	0
							Contracts L	3,000
							Train/Conf.	10,000
							Supplies	5,000
							Equipment	6,000
							Travel	3,000
							Misc.	1,000
							<b>Total</b>	<b>50,000</b>
<i>Identify current modeling frameworks; identify potential training programs; identify current data gaps and harmonization needs.</i>	<i>Activity 2.2.2. Design and implementation a sustainable modeling framework, in harmony with IPCC/AR4 to continually provide downscale climate change projections for Turkey at spatial - temporal scales appropriate for climate change preparedness and planning.</i>				UNDP	ITU	Personel I	0
							Personel L	0
							Contracts I	2,000
							Contracts L	30,000
							Train/Conf.	6,000
							Supplies	800
							Equipment	4,000
							Travel	7,200
							Misc.	4,000
<b>Total</b>	<b>54,000</b>							

JP Output 2.3. Capacity of end-users to respond to early warnings developed.									
<i>complete consultation meetings to identify capacity building needs;</i>	<i>Activity 2.3.1. Implement a pilot project in the Seyhan River Basin to build capacity to respond to early warnings and seasonal forecasts (i.e. risk reduction).</i>				UNDP	MOEF	Personel I		
							Personel L	10,189	
							Contracts I	1,663	
							Contracts L	3,053	
							Train/Conf.	1,000	
							Supplies	926	
							Equipment	836	
							Travel	1,379	
							Misc.	3,053	
							<b>Total</b>	<b>22,100</b>	
<i>organize thematic task force meeting to establish the set of procedure; review the available procedures implemented internationally.</i>	<i>Activity 2.3.2 Establish a set of procedures for the Turkish government and local stakeholders to undertake during drought and flood events (i.e. crisis management).</i>				UNDP	MOEF	Personel I		
							Personel L	9,726	
							Contracts I	1,762	
							Contracts L	3,568	
							Train/Conf.	5,000	
							Supplies	884	
							Equipment	798	
							Travel	4,542	
							Misc.	618	
							<b>Total</b>	<b>26,900</b>	
JP Output 3.1. Proposals for community-based adaptation projects developed and selected.									
<i>Organize discussion meetings with TAC to develop guidelines and selection criterias of pilot projects.</i>	<i>Activity 3.1.1. Prepare guidelines on climate change adaptation projects that will be eligible for funding. This will be undertaken by the Technical Advisory Committee.</i>				UNDP	MOEF	Personel I		
							Personel L	14,821	
							Contracts I	1,994	
							Contracts L	4,495	
							Train/Conf.	0	
							Supplies	1,347	
							Equipment	1,216	
							Travel	1,497	
							Misc.	530	
							<b>Total</b>	<b>25,900</b>	
<i>Develop the call for proposals; ensure the endorsement of the proposal by relevant ministries.</i>	<i>Activity 3.1.2. Advertise a 'Restricted Call for Proposals' in local newspapers (see Annex J). A concept note including a budget and logframe will be required in the proposal.</i>				UNDP	Local Newspapers	Personel I	0	
							Personel L	0	
							Contracts I	0	
							Contracts L	0	
							Train/Conf.	0	
							Supplies	0	
							Equipment	0	
							Travel	0	
							Misc.	2,000	
							<b>Total</b>	<b>2,000</b>	
<i>Hold consultation meetings and training to local partners on pilot project selection criterias; develop training material on climate change adaptation.</i>	<i>Activity 3.1.3. Inform the public and government on the eligibility criteria and the selection process, and build local capacity on climate change adaptation projects.</i>				UNDP	LOCAL COMMUNITIES	Personel I	0	
							Personel L	12,042	
							Contracts I	547	
							Contracts L	2,189	
							Train/Conf.	3,900	
							Supplies	1,095	
							Equipment	988	
							Travel	1,516	
							Misc.	622	
							<b>Total</b>	<b>22,900</b>	
<i>Hold consultation meetings with applicants to formulate the concept notes into full proposal.</i>	<i>Activity 3.1.4. Development of concept notes into full project proposals.</i>				UNDP	UNDP	Personel I	0	
							Personel L	7,874	
							Contracts I	358	
							Contracts L	5,032	
							Train/Conf.	0	
							Supplies	716	
							Equipment	646	
							Travel	2,375	
							Misc.	0	
							<b>Total</b>	<b>17,000</b>	



JP Outcome 3.2. Pilot projects awarded, initiated, monitored and evaluated.									
<i>Provide training to TAC on the selection criteria of the pilot projects; Select pilot projects.</i>	<i>Activity 3.2.1. Award pilot projects the start-up funds.</i>				UNDP	UNDP	Personel I	0	
							Personel L	49,836	
							Contracts I	2,265	
							Contracts L	9,661	
							Train/Conf.	723	
							Supplies	4,531	
							Equipment	4,090	
							Travel	6,194	
							Misc.	500,000	
							<b>Total</b>	<b>577,300</b>	
<i>Field visit to the project partners.</i>	<i>Activity 3.2.2. Facilitate start-up of pilot projects.</i>				UNDP	MOEF	Personel I	0	
							Personel L	4,168	
							Contracts I	189	
							Contracts L	1,358	
							Train/Conf.	0	
							Supplies	379	
							Equipment	342	
							Travel	4,621	
							Misc.	642	
							<b>Total</b>	<b>11,700</b>	
<i>Monitoring and evaluation methodology under preparation.</i>	<i>Activity 3.2.3. Monitor, evaluate and audit project progress.</i>				UNDP	MOEF	Personel I	0	
							Personel L	12,691	
							Contracts I	577	
							Contracts L	28,307	
							Train/Conf.	948	
							Supplies	1,154	
							Equipment	1,042	
							Travel	8,282	
							Misc.	0	
							<b>Total</b>	<b>53,000</b>	
<i>Design the format of the final project reports and share it with relevant stakeholders.</i>	<i>Activity 3.2.4. Prepare final report on project.</i>				UNDP	UNDP	Personel I	0	
							Personel L	7,874	
							Contracts I	358	
							Contracts L	3,232	
							Train/Conf.	938	
							Supplies	716	
							Equipment	646	
							Travel	1,375	
							Misc.	162	
							<b>Total</b>	<b>15,300</b>	
JP Output 3.3. Lessons captured and up-scaled by feeding into upstream policy level outcomes.									
<i>Initiate the preparation of the lessons learned report format and potential content.</i>	<i>Activity 3.3.1. Document lessons learned.</i>				UNDP	MOEF	Personel I	0	
							Personel L	7,411	
							Contracts I	1,537	
							Contracts L	3,747	
							Train/Conf.	154	
							Supplies	674	
							Equipment	608	
							Travel	1,969	
							Misc.	4,701	
							<b>Total</b>	<b>20,800</b>	
<i>Initiate the draft dissemination strategy development.</i>	<i>Activity 3.3.2 Develop and implement a dissemination strategy.</i>				UNDP	MOEF	Personel I	0	
							Personel L	9,263	
							Contracts I	1,621	
							Contracts L	4,084	
							Train/Conf.	1,028	
							Supplies	842	
							Equipment	760	
							Travel	1,606	
							Misc.	196	
							<b>Total</b>	<b>19,400</b>	
<i>Technical assistance meeting with support from FAO, UNIDO and UNDP.</i>	<i>Activity 3.3.3. Provide technical assistance to the pilot projects.</i>				UNCT	MOEF	Personel I	0	
							Personel L	0	
							Contracts I	10,000	
							Contracts L	0	
							Train/Conf.	0	
							Supplies	0	
							Equipment	0	
							Travel	10,000	
							Misc.	0	
							<b>Total</b>	<b>20,000</b>	

JP Output 4.1. Revision of UNDAF with a coordinated approach to mainstreaming climate change undertaken.											
Consultative meetings are organized to discuss and assess the gaps in technical capacity.	Activity 4.1.1. Hold consultative meetings among UNCT and stakeholders. Activity 4.1.2. Provide training on Climate Change Adaptation measures and climate change related to disaster management to UN staff. Activity 4.1.3. Hold mid-term review meeting of UNDAF in 2008. Activity 4.1.4. Validate conclusions of mid-term review meeting and attain signature on revised UNDAF. Activity 4.1.5. Assess the option for outcome objectives through the UNEP-UNDP Partnership on					UNCT	UNCT		Personel I	0	
									Personel L	0	
										Contracts I	0
										Contracts L	3,000
										Train/Conf.	5,000
										Supplies	0
										Equipment	0
										Travel	2,000
										Misc.	0
								<b>Total</b>	<b>10,000</b>		
JP Output 4.2. Screening mechanism on climate change (with a gender approach) agreed upon and established among UNCT agencies											
Identify the potential UN ongoing projects for climate proofing; initiate the screening tools and pre-testing.	Activity 4.2.1. Designate focal point in each relevant agency. Activity 4.2.2. Identify priority projects/programmes for climate change crosscutting review. Activity 4.2.3. Test screening tool using a project/programme design checklist on selected MDG-based programmes. Activity 4.2.4. Document lessons learned from the screening exercise and use these to further develop the tool. Activity 4.2.5. Validate screening tool for application to all UN programmes. Activity 4.2.6. Prepare UNCT Annual Reports on climate change screening.					UNCT	UNCT		Personel I	0	
									Personel L	0	
										Contracts I	0
										Contracts L	2,000
										Train/Conf.	3,000
										Supplies	0
										Equipment	0
										Travel	1,000
										Misc.	0
								<b>Total</b>	<b>6,000</b>		
Joint Programme Monitoring & Reporting											
	Inception Report									15,000	
	Quarterly Reports									2,500	
	Annual Project Reports									3,000	
	TPRS/UNDP					UNDP	UNDP			1,000	
	Midterm Evaluation Report									0	
	Final Evaluation Report									0	
									<b>Total</b>	<b>21,500</b>	
	Total without management fee										
	Management fee for MDG - F (7%)										
	Management fee for MDG - F (1%)										
	Project Preparation/formulation										
	<b>Total</b>									<b>1,837,000</b>	
* Planned budget categories includes UN agencies direct implementation support costs.											

### **13. Annex B: Joint Programme Results**

In pursuant of the overall development objective, i.e. to develop capacity for managing climate change risks to rural and coastal development in Turkey, the Joint Programme will achieve the outcomes described below. For each output described, a detailed terms of reference will be prepared, prior to commencement of the project and will be endorsed by the National Steering Committee.

#### **Outcome 1. Climate change adaptation mainstreamed in Turkey's national plans.** (FAO/UNDP/UNIDO/UNEP/MOEF/MARA/SPO/MIT/UNIVERSITIES)

##### **Baseline**

Adaptation to climate change activities is a component of Turkey's development plans, and rural development strategies. For example, the Ninth Development Plan 2007-2013<sup>11</sup> prepared by the State Planning Organization (SPO) states in paragraph 461: "In the framework of the conditions of Turkey, and with the participation of the relevant parties, a National Action Plan that sets forth the policies and measures for reducing greenhouse gas emissions will be prepared. Thus, responsibilities concerning UN Framework Convention on Climate Change will be fulfilled."

The Regional Development Plan for the Eastern Black Sea Region (2002)<sup>12</sup> promotes the sustainable use of agricultural and other natural resources. It notes the relevance of the United Nations Framework Convention on Climate Change (UNFCCC) and the international carbon market in this regard. Adaptation to climate change activities will overlap many of the objectives of the rural development plans such as management of drought, reduction of erosion, sustainable use of water resources, conservation of biodiversity and enhancing food security.

The Ministry of Environment and Forestry (MOEF) is particularly involved in the environmental dimension of climate change. With support from UNDP, it has played a significant coordinating role in the preparatory process for the First National Communication to the UNFCCC (2007). Turkey is also at present examining its environmental laws in the context of accession to the EU. The screening process will ensure that long term strategies and policies are aligned with the EU Acquis/practices and other international commitments made by Turkey. Adaptation to climate change policies will consequently need to be incorporated into Turkey's legal and policy frameworks.

The legislative framework does not, at present, insufficiently incorporate adaptation to climate change, and awareness of climate change risks is limited within national and local government as well as the general public. Efforts are, however, being made to rectify this situation. The Turkish Prime Minister is, for example, discussing the relevance of climate change to Turkey, and recently gave a speech on climate change to a UN Delegation in New York (24 September 2007). This is an indication of that climate change and its impacts on socio-economic development are gradually being brought in at high political levels. However, in order for adaptation to climate change to become part of the national policy and decision-making routine the key prevailing gaps and capacities need to be addressed. These gaps include, firstly that there is no structured framework or associated guidance to promote climate sensitive decision-making in Turkey at present. Legislators and decision makers are neither equipped with knowledge, tools or guidance nor placed to operate in a favorable regulatory framework for climate influenced decision-making. Secondly, there is no methodology or practice of climate risk assessment, or use of available climate information and forecasting. Thirdly, the financial implications of climate change are not known, and consequently the identification and implementation of

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<sup>11</sup> <http://ekutup.dpt.gov.tr/plan/ix/9developmentplan.pdf>

<sup>12</sup> <http://ekutup.dpt.gov.tr/bolgesel/dokap/ing/>

appropriate adaptive responses is difficult. These barriers and gaps will be addressed by the project under the alternative scenario below.

Further information on the institutional framework is provided in Annex D.

### **Alternative scenario with MDG-F funding**

In this outcome key strategic planning frameworks will be targeted in order to mainstream climate change adaptation. Turkey's development plan and rural development strategies will be screened and revised to integrate adaptation needs. The screening process will help the national stakeholders to better understand the current and future climate change risks and their implications for economic, human and social development. The project will also initiate legislative and procedural changes to mainstream climate change risks into development and regional planning. A new and revised legal framework will be developed to introduce clear rules and procedures for a mainstreaming routine. National authorities are to be in full agreement with these proposals.

There are a wide range of policies and measures that can be implemented in order to adapt to climate change. The goal of this outcome will be to select the appropriate policies and measures for Turkey at a national level, and to identify site-specific priorities at a local level for particular climate change risks. It is anticipated that climate change adaptation will be integrated into the following national policies: hazards, sectoral, regional, economic and social, physical planning and integrated national adaptation strategies. Financial implications of climate change will be analyzed and presented to the key stakeholders. The menu of no-regret / low regret, low cost options will be designed for further consideration and agreement.

Policy driven information gathering (see Annex K) will be the approach taken to ensure that policy makers are provided with the appropriate data required to include climate change in national strategies and planning. The outcome 1 will be linked to Outcome 3 to ensure that community experiences feed into national frameworks and, conversely, that national strategies are tested in the field through continuous learning. The experiences of UNEP's Division for Environmental Law and Conventions will be drawn from for this purpose.

An eco-efficiency centre will also be established in this outcome in order to facilitate policy changes in the industrial sector. The centre will provide guidance to industry on how to reduce water consumption and will implement pilot demonstrations. It will also undertake a climate change gap analysis and vulnerability analysis of the industrial sector. The lessons learnt from pilot demonstrations and establishment of the centre will be used to promote policy and legislative changes. Another objective will be to make the centre self funded, to ensure that lessons learnt are disseminated beyond the end of the Joint Programme. The PMC and PM will oversee the project with technical guidance and clearance provided by the Technical Advisory Committee.

The appropriate changes to national policies and legislation will be assessed according to Turkey's circumstances, priorities and values. Three overarching 'adaptation rules' will be followed in order to provide the principle selection criteria for projects (see Outcome 3) as well as give guidance to overall adaptation policy and strategy development.

Rule 1: Adaptation must be economically efficient. A key test for adaptation action is the extent to which it will contribute to the growth of the national economy and protection from further damages. A common method of analysis is cost – benefit analysis, which can be used, especially on a project basis, to ensure that investments in adaptation projects or programmes give a good economic/social return.

Rule 2: Adaptation must help to advance social goals. Adaptation choices should be designed in such a way as to promote the social objectives of the country. Special

attention should be also given to disadvantaged groups such as women, children, elderly and handicapped and other social minorities. While assessing the impacts of policies on these groups, social indicators are recommended to be used to measure relative degrees of disadvantage, inequity, and vulnerability.

Rule 3: Adaptation must be environmentally sustainable. Adaptation choices should be designed in such a way as to be compatible with long – term environmental protection. Strategic environmental impact assessment should be used to ensure the improvements of the proposed projects and programmes.

*Output 1.1. A plan for education, training and public awareness on adaptation to climate change (UNFCCC Article 6) to support the objectives of the Joint Programme developed and implemented.*

*Activity 1.1.1. Assess the training needs and develop a plan for meeting them (UNEP).*

- Develop a list of relevant target groups (the general public, media, industry, private sector, policy makers, woman and vulnerable groups such as landless rural communities);
- Identify and source the information needs;
- Identify the means (e.g. tools such as workshops, seminars, information packages, handbooks for decision-makers).

*Activity 1.1.2. Implement the plan (UNEP).*

*Output 1.2 Long-term knowledge in Turkish institutions developed. This serves both to develop capacity in country, and to increase Turkey's profile in international climate change collaboration, including IPCC.*

*Activity 1.2.1. Facilitate student training at school and university levels (UNDP).*

- Provide extra curricular activities for school children in primary and secondary schools in the Seyhan River Basin for awareness raising and capability building on climate change. Encourage girls and vulnerable groups to participate in these activities. These activities would include small projects with a budget to be implemented by the school children. Involvement of parents and teachers in the projects would be encouraged.

*Activity 1.2.2. Build capacity for research and knowledge on adaptation to climate change in Turkish institutions (UNEP).*

- Develop undergraduate short courses in climate change disaster events and how to manage them;
- Incentives students to undertake post-graduate studies in management of climate change risks through provision of bursaries;
- Increase research collaboration between Turkish and foreign climate change researchers that are actively involved in international scientific programmes (e.g. CLIVAR);
- Ensure that Turkish delegates to the climate change COP/MOP's can promote coherence between national and international policies. Support participation and capacity of government representatives in international climate change negotiations.
- Assess Turkey's situation in adaptation to climate change from the perspective of EU accession and EU policies.

*Output 1.3. National adaptation to climate change strategy developed and submitted to the government of Turkey for consideration. This will serve as a basis for altering existing policies and legislative frameworks.*

*Activity 1.3.1. Review and synthesize existing literature on vulnerability and impact of climate change in relevant sectors and regions (UNEP).*

Activity 1.3.2. Undertake participatory vulnerability assessment with key stakeholders in relevant regions (including the Seyhan River Basin) and sectors. The Adaptation Policy Frameworks for Climate Change guidelines will be used<sup>13</sup> (UNEP).

Activity 1.3.3. Prepare Strategy with government and support from FAO, UNDP and UNIDO (UNEP).

Activity 1.3.4. Disseminate strategy proposed to appropriate stakeholders for feedback (UNEP).

Activity 1.3.5. Revise the strategy proposed based on feedback (UNEP).

Activity 1.3.6. Submit to Government of Turkey for consideration (UNEP).

*Output 1.4. Amendments to policy and appropriate policy tools will be developed and proposed for reducing vulnerability to climate change through the government's development activities and private sector. A package of policies, legislative, regulatory and other policy instruments is produced and agreed to be submitted to the Government of Turkey for consideration to address climate change risks foreseen in the climate change models/scenarios to be developed during the programme implementation.*

*Activity 1.4.1. Undertake a legal and institutional review i.e. assess the Turkish legal and policy frameworks to identify the key entry points for adaptation mainstreaming (with a particular focus on the four themes mentioned above and cross cutting tools such as Environmental Impact Assessment (EIA)) (UNEP).*

- Identify relevant national policies and regulatory frameworks as entry points for reform;
- Review and assess current national (and sub-national for Seyhan River Basin) policies and regional legislative frameworks (laws, regulations, and action plans) and existing instruments (fees, penalties, subsidies and funding programmes etc.) in the sectors most vulnerable to climate change (e.g. water, agriculture, food security, forestry, energy and flood control). This will build on work in i) the First National Communication to the UNFCCC (2007); ii) the Seyhan River Basin project - Impact of Climate Changes on Agricultural Production System in Arid Areas (ICCAP) conducted by the Research Institute for Humanity and Nature (RIHN, Kyoto, Japan), Turkish Scientific and Technological Research Authority (TUBITAK), and Cukurova University over the period April 2001 – March 2007; and iii) the UNDP publication "Climate Change and Turkey" (2007). Cross cutting tools such as environmental impact assessments will also be examined as an appropriate tool; and relevant forthcoming studies.
- Undertake an institutional mapping exercise;
- Prepare draft amendments and identify capacity needs to implement changes;
- Develop a regional adaptation strategy for the Seyhan River Basin (see Outcome 3), which could be replicated to other regions using national strategies;
- Determine and consult appropriate stakeholders (e.g. high level decision makers, technical experts, local administrations, associations, chambers, NGOs, unions, pilot project partners and ministerial legislative experts/advisers) from technical, policy and legal fields at national, regional and local levels on proposed amendments and on risks and consequences of proposed changes;
- Determine human resources capacity and training needs within the stakeholder groups (after proposed amendments have been adopted) to facilitate the implementation of amended relevant laws and regulations;
- Develop and implement a programme for the appropriate capacity building and awareness raising with regards to the amended policies and legislation;
- Analyze the effectiveness of the existing monitoring and evaluation mechanisms of policies and legislation implementation;

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<sup>13</sup> UNDP 2005. Cambridge University Press  
[http://www.undp.org/gef/undp-gef\\_publications/undp-gef\\_publications.html](http://www.undp.org/gef/undp-gef_publications/undp-gef_publications.html)

- Develop recommendations to adjust monitoring and evaluation mechanisms in order to incorporate climate change adaptation into national, regional and local level structures.

*Activity 1.4.2. Submit proposals developed in Activity 1.4.1 for integrating climate change adaptation into the national legal framework to relevant stakeholders (UNEP).*

*Activity 1.4.3: Undertake targeted capacity building for those responsible for implementing changes as they relate to agriculture (with a particular focus on woman's groups) (FAO).*

*Activity 1.4.4: Undertake targeted capacity building for those responsible for implementing changes as they relate to industry (UNIDO).*

*Activity 1.4.5: Undertake targeted capacity building for those responsible for implementing changes as they relate to sectors other than agriculture and industry (UNEP).*

*Output 1.5. Industrial practices amended to reduce vulnerability to climate change.*

*Activity 1.5.1. Prepare a business plan for an eco-efficiency centre which focuses on adaptation of industry to climate change-risks, especially reduction of water consumption (UNIDO).*

- Select a region for implementation (decision to be guided by Technical Advisory Committee);
- Undertake a baseline analysis of the water sector in that region (including water supply and demand projections, taking climate change projections into account);
- Identify appropriate industrial processes to be altered and identify appropriate technological changes.

*Activity 1.5.2. The eco-efficiency centre, with 6 demonstration sites giving priority to reduce water consumption, established (UNIDO).*

*Activity 1.5.3. Prepare report on lessons learnt, a cost benefit analysis of processes implemented in the demonstration sites, the progress on MDG targets, and how the results can feed into national policies. This information will be used as input into Output 1.4 (UNIDO).*

## **Outcome 2. Institutional capacity developed for managing climate-risks, including disasters.**

(FAO/UNDP/UNIDO/UNEP/MOEF/MARA/SPO/MIT/UNIVERSITIES)

### **Baseline**

As a country particularly prone to disasters (e.g. earthquakes, landslides, floods and droughts), Turkey has created some initial response capacities for disaster risk management. At a national level, for example, the General Directorate of Disaster Affairs is responsible for providing emergency aid and coordinating the relevant institutions during and after a disaster. Importantly, it is also responsible for determining the potential disaster areas and taking the necessary precautions for preventing disasters and minimizing loss of livelihoods. In January 2007, an Environmental Emergencies Capacity Assessment was undertaken by UNEP, Office for the Coordination of Humanitarian Affairs (OCHA) and the Turkish Ministry of Environment and Forestry<sup>14</sup>. It was evident from this study that there is insufficient capacity within the General Directorate of Disaster Affairs and the MOEF to provide early warnings of droughts and floods, and to manage these events when they occur.

Droughts are increasingly recognized as an impending national crisis, and numerous initiatives are being developed. At a local level, a 'Drought Centre' has, for example, been established by the Konya Soil and Water Resources Research Institute to improve drought predictions and to assist farmers in managing drought. The Integrated Land and Water Management Program is also involved in reducing water consumption and increasing supply in poor rural communities<sup>15</sup>. A rooftop water harvesting project has, for example, been recently launched in 40 households near Beypazari by the UNDP using financing provided by Coca Cola. The Directorate-General for Agricultural Production (TAGEM) and the Ministry of Agriculture and Rural Affairs (MARA) also provide a service of crop yield monitoring and forecasting.

In 2007, TAGEM/MARA will firstly analyse climate data and climate change trends across the country, and use this data to identify highly vulnerable regions where water availability will not meet agricultural demand. Secondly, it will establish twenty observation points in agricultural landscape whereby effects of climate change on agricultural productivity (in croplands and forests) will be monitored, so that impending disasters in the agriculture sector can be detected as early as possible. Thirdly, it will develop plans for each region to adapt to reductions in water availability. These plans will include implementing new technology and training farmers in the region to adopt different farming techniques. Finally, MARA is in the process of implementing an Early Warning System to inform farmers of impending droughts. There are several capacity gaps within the ministry. This includes: i) biological expertise for implementing the observation stations in agricultural landscapes, and ii) skills to incorporate flood warnings into their Early Warning System.

Flooding is the second most important natural hazard after earthquakes in Turkey. This is related to topography. In the Western Black Sea region, for example, most of the drainage areas of the rivers have short main courses, with steep slopes and are dissected with deep valleys. During floods, the water flow has a high speed and, due to elevated sediment load, is muddy and eroding in nature. Forest cover has been damaged and the water-retaining capacity of the drainage basins has decreased. Devastating flash floods occur most frequently between May and July. The local population use the flood plains of rivers located in narrow valleys both for urban settlement and agriculture. Since the

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<sup>14</sup> Environmental Emergencies Capacity Assessment in Turkey: workshop results and recommendations. Ankara, Turkey 20-25 January 2007. Joint UNEP/OCHA Environment Unit.

<sup>15</sup> The Week at ICARDA No. 979.



fertile land is limited to the narrow valleys, it has a high value and is utilized in spite of the risk of floods<sup>16</sup>.

With the assistance of the World Bank, an Integrated Flood Management programme, named TEFER (Turkey Earthquake and Flood Emergency Recovery) Project was initiated after 1998 and developed for four catchments. Structural and non-structural measures as flood control alternatives are being undertaken. These include construction of new reservoirs, longitudinal and transverse structures for river training, flood forecasting by using the real-time data collected along the river courses, satellite data use, and Geographic Information System (GIS) and non-structural flood protection studies such as flood proofing, early warning, land use modification, building public awareness of the floods, keeping flood danger in the agenda of flood zones, change in urban planning policies to keep the settlements as far as possible from the flood plains, obligatory natural disaster (including floods) insurance, discourage the ongoing trend to settle in flood plains in narrow valleys, higher tax for those settlements in flood prone areas, and education of the youth<sup>17</sup>.

The Turkish State Meteorological Service (TSMS) provides 5-day weather forecasts (with an 85% accuracy) to the public<sup>18</sup>, and provides seasonal forecasts via their website ([www.meteoroloji.gov.tr](http://www.meteoroloji.gov.tr)) using information provided by three centres (The United Kingdom (UK) Met Office, European Center for Medium-range Weather Forecast, and Meteo France). Such seasonal forecasts are of critical importance for medium term planning of agricultural activities and for adapting agriculture to climate change. Although the forecasts are available, it is not clear to what extent farmers and other end-users are utilizing the information.

The Turkish State Meteorological Service has a wide observation network, with 444 stations, including 227 automatic stations. Quality assurance and archiving procedures are consistent with World Meteorological Organization guidelines. An additional 174 automatic stations will be installed in December 2007. Climate data is consequently readily available for research into trends and impacts of climate change.

The institutional set up and efforts to address climate risks are, however, somewhat dispersed and do not allow for systematic adaptation responses. Priority gaps to be addressed are as follows: i) roles and responsibilities are not streamlined across multiple agencies involved in disaster risk management; ii) early warning system and monitoring systems are not fully equipped to timely disseminate information for response and preparedness; iii) data storage and processing needs to be improved in a systematic manner so that it can be readily available as well as applicable for decisions at all appropriate levels; and iv) seasonal weather forecasts information is provided on the internet, but this does often not reach appropriate end-users such as rural farmers. These barriers and gaps will be addressed by the project under the alternative scenario.

### **Alternative scenario with MDG-F funding**

Under this outcome, the Joint Programme will work with relevant national and regional institutions to enhance their in-house knowledge and response capacity to effectively manage climate-induced disasters in Turkey. The programme will strengthen and expand upon the MARA's Turkish Agriculture Drought Masterplan, and facilitate the flow of data from the project across government agencies and to the general public. Flood warnings will be incorporated in the MARA's Early Warning System through collaboration with the TEFER project in the Turkish State Hydraulics Works, and expertise will be provided to monitor climate change-induced changes in agricultural productivity and plant phenology.

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<sup>16</sup> Gurer, I. and Ozguler, H. Turkey: recent flood disasters in Northwestern Black Sea Region. WMO/GWP Associated Programme on Flood Management.

<sup>17</sup> Gurer, I. and Ozguler, H. Turkey: recent flood disasters in Northwestern Black Sea Region. WMO/GWP Associated Programme on Flood Management.

<sup>18</sup> Gonul Kilic, Turkish State Meteorological Service, email of 3 October 2007 to Katalin Zaim.

Furthermore, technical capacity will be developed to generate and disseminate seasonal climate forecasts to sectors vulnerable to climate change.

*Output 2.1. Technical capacity for data management developed. This will improve the quality of drought and flood early warnings across Turkey. UNEP's Division of Early Warning and Assessment can provide guidance.*

*Activity 2.1.1. Identify the stakeholders at the local to decision-making levels, and identify their information needs (FAO).*

*Activity 2.1.2. Assess the existing technical capacity and gaps for providing early warnings of floods and droughts (FAO).*

- Assess current environmental monitoring and data management in terms of floods and drought in national, regional and local government, the private sector, universities, NGOs, Civil Societies Organizations (CSO) and Community Based Organizations (CBOs), vulnerable groups (i.e., women, landless communities) in terms of data collection, data assessment and data distribution.

*Activity 2.1.3. Prepare an implementation plan for an environmental information management system that can integrate available climate change data across all relevant institutions and disseminate this information to end-users (FAO).*

- Recommend methods of data standardization, quality control, and feedback loops between data producers and data users;
- Develop and implement an environmental information management system;
- Identify and agree to roles and responsibilities of relevant institutions in relation to monitoring, and general management of the information system;
- Develop and implement training materials for the data users.

*Output 2.2. Technical capacity for analysis and interpretation of data developed.*

*Activity 2.2.1. Expand and strengthen MARA's Turkish Agriculture Drought Masterplan in order to increase capacity to deliver early warnings for floods and droughts. This activity will build on the multi-agency Global Terrestrial Observing System (GTOS)<sup>19</sup> (FAO).*

- Identify the type of data required for strengthening and building upon the project;
- Provide biological expertise to the MARA in order to further develop environmental observing systems to provide the necessary data to improve climate change forecasts;
- Facilitate collaboration with TEFER to incorporate flood warnings into the MARA Early Warning System.

*Activity 2.2.2. Design and implement a sustainable modeling framework, in harmony with IPCC/AR4, to continually provide downscale climate projections for Turkey at spatial – temporal scales appropriate for climate change preparedness and planning (UNDP).*

- Access currently available regional climate models through comparative studies;
- Develop and execute a series of training activities to help capacity building among government agencies in using regional climate projections;
- Develop and implement a prototype of adaptive data for climate change data analysis, projects, scenario analysis and information dissemination;
- Develop an information dissemination system;
- Develop capacity for interpreting the data analyses, to make appropriate recommendations for decision makers at all scales.

*Output 2.3. Capacity of end-users to respond to early warnings developed.*

*Activity 2.3.1. Implement a pilot project in the Seyhan River Basin to build capacity to respond to early warnings and seasonal forecasts (i.e. risk reduction) (UNDP).*

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<sup>19</sup> GTOS partners: FAO, WMO, UNESCO, UNEP, ICSU

- Promote collaboration between experts who are responsible for managing the Seyhan River Basin and international centres focusing on risk reduction (e.g. UNISDR);
- Identify relevant local stakeholders;
- Develop a set of procedures to respond to early warnings and seasonal forecasts with these stakeholders;
- Pilot environmental management as a tool for risk reduction.

*Activity 2.3.2. Establish a set of procedures for the Turkish government and local stakeholders to undertake during drought and flood events (i.e. crisis management) (UNDP).*

### **Outcome 3. Capacity for community-based adaptation in the Seyhan River Basin developed.**

(FAO/UNDP/UNIDO/UNEP/MOEF/TSMS/MARA/SPO/MIT/UNIVERSITIES)

#### **Baseline**

A climate change study in the Seyhan and Ceyhan River Basins in the arid area on the east coast of the Mediterranean Sea entitled "Impact of Climate Changes on Agricultural Production System in Arid Areas" (ICCAP) was conducted by the Research Institute for Humanity and Nature (RIHN, Kyoto, Japan), Turkish Scientific and Technological Research Authority (TUBITAK), and Cukurova University over the period April 2002 – March 2007. A comprehensive assessment and evaluation of agricultural production system with special reference to land and water management was undertaken. The relationship between the regional climate, hydrology and the agricultural economy was evaluated. An integrated assessment of vulnerability of the system to climate change was undertaken to identify the driving factors behind agricultural productivity in the region.

The Seyhan River Basin was chosen as the region for climate adaptation demonstration projects for the following reasons: i) it is part of the Mediterranean region which has been identified as extremely vulnerable to global warming by the UNFCCC; ii) it is one of the most productive agricultural regions in Turkey and Europe; iii) the basin has a range of agricultural systems, including dryland farming, irrigated crop farming, and cattle breeding; iv) it has a long production history of wheat production; v) it is 19300 km<sup>2</sup> in size and consequently large enough to accommodate numerous studies and pilot projects; vi) it is not a cross border basin; and vii) it is one of the world's richest regions in terms of biodiversity. Mean annual rainfall across the basin is 640 mm, and mean annual evapotranspiration is 1560 mm. The mean annual temperature is 18.8 °C and the climate is Mediterranean (i.e. winter rainfall, with hot and dry summers). The extent of irrigated farm areas is 200 000 ha, and the main crops are wheat, corn, citrus and cotton. Further details on the economy of the region are provided in Annex E.

Climate modeling using MRI-GCM and CCSR/NIES-GCM within ICCAP showed that temperatures by 2070 across the basin are predicted to increase by 2-3.5 °C. Rainfall was predicted to decrease by 25-35%, with concomitant reduction in crop production. These changes in rainfall and temperature will necessitate changes in the location of different crop types in the basin. Water resources used for irrigation were predicted to decrease significantly, as a result of greater evapotranspiration and reduced rainfall, but also due to reduced snowfall, and earlier melting of snow in spring. It was anticipated that crop production will shift to the northern parts of the basin and to higher altitudes, which would in turn have an impact on cattle breeding. Adaptation to climate change may entail a move towards cash crops (e.g. chestnuts, olives, fruits) and reduced area under wheat<sup>20</sup>.

Groundwater flow and modeling studies in ICCAP suggest that groundwater resources in the Adana Plain Aquifer are likely to reduce in volume and deteriorate in quality due to climate change. Greater temperatures and reduced precipitation will reduce recharge into the aquifer, and there will be greater extraction from the aquifer due to population growth as well as reduced availability of water from above-ground sources. The reduction in the aquifer volume will lead to salt water intrusion from the sea. Groundwater flow models predict that sea water intrusion will reach 10 km inland<sup>21</sup>.

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<sup>20</sup> Presentation on 10 September 2007, to UN agencies and governmental stakeholders. by Professor Rıza Kanber from Cukurova University.

<sup>21</sup> Ekmekçi, M., Tezcan, L., Atilla, A. Ö., Gürkan, D., Yalçınkaya, S.O., Namkhai, O., Soylu, M. E., Donma, S., Yılmaz, D., Akyatan, A., Pelen, N., Topaloğlu, F., İrvem, A., 2007, Seyhan Nehri Havzasında Tarım Güvenliği İçin Su Kaynakları Sistemlerinin İklim Değişikliklerine Karşı Duyarlılıklarının Araştırılması Projesi Sonuç Raporu, TÜBİTAK Proje No: TOVAG-JPN-09, Ankara, 90 s.



Figure 1. Location of study region i.e. the Seyhan River Basin.

### **Alternative scenario with MDG-F funding**

The programme will pilot climate change adaptation approaches by introducing the principles of Community Based Adaptation (CBA) in the context of agricultural practices, water management, food security, climate change related disaster risk management (particularly drought management), coastal development, natural resource management, and data and information management. Local communities will be empowered to adopt coping and adaptation strategies by increased participation in local planning and decision making. By applying participatory methods, the programme will bring together key stakeholders at the local level (planners and decision makers, developers and investors, local communities and most vulnerable groups) in the framework of public private partnership (PPP) to mobilize commitments and local resources in financing adaptation measures.

A community-based approach will ensure that local stakeholders drive the projects with support and guidance from government and UN agencies. The adaptation projects most suitable for the Seyhan River Basin will be selected using a transparent process, in which local stakeholders are informed of the criteria for selection, and trained in climate change adaptation. Special attention will be given to the needs of women, and poor, disadvantaged rural communities (i.e. barrier removal to ensure access to ecosystem services and water resources).

Comprehensive adaptation to climate change in the basin will require activities in a wide variety of sectors. Projects will be identified in which i) local stakeholder commitment is strong, and ii) there is a strong probability that the efficacy of a particular climate change adaptation measure will be demonstrated. It is anticipated that demonstration of successful measures will catalyze additional funding for further implementation. Such funding could be from local communities, government or donors. It is therefore of the utmost priority that the MDG-F funds play a catalytic role and are focused on high priority and quality pilot initiatives rather than spreading project funds too thinly. In summary, this joint project will focus on producing successful pilot demonstrations that will catalyze the up-scaling of the climate change adaptation priority activities in the Seyhan River Basin.

Projects will be grouped into several broad themes, and the number of projects to be selected from each theme will be decided by the Technical Advisory Committee (TAC). Separate task forces for each theme will be created within the TAC (see Annex M). The themes and potential projects within each theme are listed below. The lessons learnt from pilot demonstrations and establishment of the centre will be used to promote policy and legislative changes.

### *Theme 1. Water stress*

Hydrological modeling results show that climate change is likely to reduce surface waters by 30-40% and groundwater reserves by up to 50% over the next 50 years<sup>22</sup>. This will result in severe water shortages for all sectors. As a result, water conservation projects in all sectors will be strongly encouraged.

Potentially applicable approaches include *inter alia*:

- Agricultural practices that conserve water (e.g. drip irrigation, pressurized irrigation systems, irrigation scheduling, rainwater harvesting, contouring, no-tillage or minimum-tillage, introduction of drought-adapted crop or timber species, Farm Adaptive Dynamic Optimization, mulching, using seasonal forecast information). Such projects would draw on expertise and experience in General Directorate of Agricultural Research (GDAR) and Directorate-General for Agricultural Production (TAGEM) of MARA, and the FAO.
- Technical mechanisms (e.g. improvements in water distribution, construction of additional storage capacity, construction of desalinization plants).
- Policy mechanisms (e.g. mainstreaming of climate and weather forecasts into the water management sector).
- Economic tools (e.g. water tariffs, rebates, fiscal incentives, reform of tenure of water resources) to encourage efficient use of water in domestic, agricultural and industrial sectors.
- Legislative changes to improve water catchments' management.
- Provision of crop insurance policies.
- Programmes for improving public awareness of water conservation issues and climate change (e.g. radio broadcasts, television broadcasts, extra-curricular activities for school children).
- Changes to industrial processes.
- Improvement in public health related to water borne diseases.

### *Theme 2. Disaster management*

The frequency of droughts and floods in Turkey is likely to increase as a result of climate change. Management of droughts would include approaches listed in Theme 1. Management of floods largely requires development of capacity within government. Dissemination of long term climate forecasts and an effective early warning system is appropriate management for both droughts and floods.

### *Theme 3. Coastal management*

Sea level rise threatens cropland and infrastructure on the Turkish coast. Strategies to adapt to this change depend largely on construction of dikes, as well as appropriate planning for future development in low lying coastal regions. Determining likely costs and benefits of dikes would be of value for formulating long term strategies in the region. In addition, the development of monitoring mechanisms for activities (e.g. marine, tourism, agriculture, fisheries) in the coastal region that may be affected by climate change would assist decision-making in the future. In addition, approaches addressing sustainable use of coastal line will be applicable.

### *Theme 4. Natural resource management*

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<sup>22</sup> Ekmeççi, M., Tezcan, L., Atilla, A. Ö., Gürkan, D., Yalçınkaya, S.O., Namkhai, O., Soylu, M. E., Donma, S., Yılmaz, D., Akyatan, A., Pelen, N., Topaloğlu, F., İrvem, A., 2007, Seyhan Nehri Havzasında Tarım Güvenliği İçin Su Kaynakları Sistemlerinin İklim Değişikliklerine Karşı Duyarlılıklarının Araştırılması Projesi Sonuç Raporu, TÜBİTAK Proje No: TOVAG-JPN-09, Ankara, 90 s.

Climate change in the region is likely to have adverse effects on rangeland productivity and biodiversity, wetland functioning and biodiversity and soil quality (as a result of reduction in soil carbon levels). The agricultural approaches listed in Theme 1 will be applicable to this theme. Additional approaches could include: changing stocking densities on rangelands, implementing rainwater harvesting methods in rangelands, facilitating the establishment of drought resistant browse in rangelands, facilitating the conservation and management of existing wetlands, diversifying livelihoods, improving grain storage capacity, providing off-farm employment, land use and tenure reform, establishing drought resistance forests, rezoning of agricultural land, and development of additional wetlands adjacent to dams.

*Output 3.1. Proposals for community-based adaptation projects developed and selected.*

*Activity 3.1.1. Prepare guidelines on climate change adaptation projects that will be eligible for funding. This will be undertaken by the Technical Advisory Committee (UNDP).*

- Review the key problems facing local communities in the Seyhan River Basin in terms of projected climate change, as presented in the findings of the ICCAP project;
- Develop an adaptation strategy for the region which will facilitate project selection
  - Develop and undertake a stakeholder analysis and engagement plan, with a special emphasis on women's groups and other marginalized groups;
  - Identify the most vulnerable sectors and the sectors which can adapt fastest in the region in terms of climate change, noting the particular vulnerability of certain communities who function in these sectors, e.g., landless, non-paid agricultural workers, seasonal workers outside social security etc..
  - Document baseline information and assess the available adaptation options in terms of adaptation to climate change. These potential best practices will be technical as well as socio-economic, and local as well as international;
    - Hold workshops, expert meetings, and consultations with local stakeholders (farmer organizations, relevant women organizations, local government authorities and the private sector) to review options;
    - Undertake a livelihood analysis in order to identify the gaps to increase the adaptive capacity of local communities and municipalities;
    - Identify currently available methodologies and ongoing projects which may be strengthened by MDG-F funding;
- Develop the project selection methodology (i.e. establish eligibility and selection criteria for funding of projects) by using the information collected in this activity. Criteria will be selected by the Technical Advisory Committee and endorsed by the Programme Management Committee;
- Develop monitoring and evaluation methodologies/strategies for the pilot projects.

*Activity 3.1.2. Advertise a 'Restricted Call for Proposals' in local newspapers. A concept note including a budget and log frame will be required in the proposal (UNDP).*

*Activity 3.1.3. Inform the public and government on the eligibility criteria and the selection process, and build local capacity on climate change adaptation projects (UNDP).*

- Develop communication strategy;
- Provide training to local communities, government and other relevant stakeholders on adaptation to climate change through interactive workshops. The workshops will be open to the general public and advertised in local newspapers;
- Meet with local and national government to provide information on the process of project selection. Proposals should preferably include a local community as an implementing agent partnered with local government as an executing agent.

*Activity 3.1.4. Development of concept notes into full project proposals (UNDP).*

- Select concept notes according to criteria developed in activity 3.1.1. This will be undertaken by the Technical Advisory Committee, and endorsed by the Programme Management Committee;
- Provide appropriate expertise to successful applicants to develop concept note into full project proposal. This will include training on procurement, finance, Public Private Partnership agreements and project management. To be undertaken by a Regional Project Coordinator (RPC) (TORs are detailed in Annex L) in conjunction with the Technical Advisory Committee.

*Output 3.2. Pilot projects awarded, initiated, monitored and evaluated.*

*Activity 3.2.1. Award pilot projects the start-up funds (UNDP).*

*Activity 3.2.2. Facilitate start-up of pilot projects (UNDP).*

*Activity 3.2.3. Monitor, evaluate and audit project progress (UNDP).*

*Activity 3.2.4 Prepare final report on projects (UNDP).*

*Output. 3.3. Lessons captured and up-scaled by feeding into upstream policy level outcomes.*

*Activity 3.3.1. Document lessons learned (UNDP).*

- Analyze project data and final reports;
- Conduct meetings with project participants;
- Test policy amendments (developed in Outcome 1) with the relevant pilot project partners.

*Activity 3.3.2 Develop and implement a dissemination strategy (UNDP).*

- Inform national policy makers in order to facilitate uptake of successful new strategies and/or to revise present strategies. Outcome 1 outputs are to be taken into account;
- Provide information to UNDP's Adaptation Learning Mechanism.

*Activity 3.3.3. Provide technical assistance to the pilot projects (UNCT).*



## **Outcome 4. Climate change adaptation mainstreamed into UN programming framework in Turkey. (UNCT and UNEP)**

### **Baseline**

At present, interaction between UN agencies in Turkey on climate change projects operates in a relatively ad hoc manner. Climate change issues are addressed in the framework of isolated projects. The UN system has adopted the guidelines for integration of disaster risk management into the UNDAF that decides on the collective response of the UNCT to the priorities based on UNCT's comparative advantage. However, climate risks and long term adaptation needs have not been fully addressed by the programme guidance. Currently there are a number of gaps that need to be addressed. These include: i) the Common Country Assessment process does not consider the country's climate change risks and their implications on the development agenda, including MDG's; ii) in-house knowledge and expertise in disaster risk management and climate change adaptation has not been fully mobilized to move from merely preparedness approaches towards a longer term climate change perspective; iii) and there are no synthesized guidelines to safeguard UNCT development assistance programmes against climate change risks and enable them to capture adaptation opportunities. Clearly, there is scope for developing a system that ensures that all agencies are aware of climate change risks in Turkey and that climate change projects are adapted accordingly.

### **Alternative scenario with MDG-F funding**

Under this outcome, the Joint Programme will establish the guiding principles as well as develop the technical guidelines for integrating climate change concerns into the UN programming. This will be done by using the UNDAF as the programmatic platform for mainstreaming adaptation within the UN system. This approach will ensure the "climate proofing" of all multi-agency development assistance which is targeted for achieving the MDGs.

*Output 4.1. Revision of UNDAF with a coordinated approach to mainstreaming climate change undertaken.*

*Activity 4.1.1. Hold consultative meetings among UNCT and stakeholders (UNCT and UNEP).*

*Activity 4.1.2. Provide training on Climate Change Adaptation measures and climate change related disaster management to UN staff (UNCT and UNEP).*

*Activity 4.1.3. Hold mid-term review meeting of UNDAF in 2008 (UNCT and UNEP).*

*Activity 4.1.4. Validate conclusions of mid-term review meeting and attain signature on revised UNDAF (UNCT and UNEP).*

*Activity 4.1.5. Assess the option for outcome objectives through the UNEP-UNDP Partnership on Adaptation (CC-DARE) (UNCT and UNEP).*

*Output 4.2. Screening mechanism on climate change (with a gender approach) agreed upon and established among UNCT agencies (UNCT and UNEP).*

*Activity 4.2.1. Designate focal point in each relevant agency (UNCT and UNEP).*

*Activity 4.2.2. Identify priority projects/programmes for climate change crosscutting review (UNCT and UNEP).*

*Activity 4.2.3. Test screening tool using a project/programme design checklist on selected MDG-based programmes (UNCT and UNEP).*

*Activity 4.2.4. Document lessons learned from the screening exercise and use these to further develop the tool (UNCT and UNEP).*

*Activity 4.2.5. Validate screening tool for application to all UN programmes (UNCT and UNEP).*

*Activity 4.2.6. Prepare UNCT Annual Reports on climate change screening (UNCT and UNEP).*

## **14. Annex C: The Climate of Turkey**

The climate of Turkey is highly seasonal and is under the variations of the Mediterranean climate. Inland Turkey is isolated from maritime influences due to high mountains parallel to the shorelines. The Koppen's definition of Mediterranean climate is, in simple terms, one in which winter rainfall is more than three times summer rainfall, but for much of the region summer rainfall is practically zero. The seasonal cycle is well pronounced and can be defined. July, August and September (JAS) are characterized by warm and dry weather in a large part of the basin; a consequence of a strong high pressure ridge extending from the Azores subtropical high. The ridge further extends southward to Egypt. To the northwest, the ridge extends to Turkey, even further down to the Persian Gulf. During JAS, the eastern Mediterranean is affected by an extension of the Indian summer monsoon depression. In October, the rainy season begins. Winter is characterized by cyclonic disturbances and low pressure in the Mediterranean with higher pressure to the east associated with the Siberian high. In spring, the rainy season continues. By May, the polar front and associated strong jetstream is sufficiently far north that its influence is diminished, and the subtropical highs and associated ridges once more exert their influence.<sup>23 24</sup>

The formation of Mediterranean cyclones is partly determined by excursions of the polar front jet and the European trough, modified by the land-sea temperature contrast, which favors cyclogenesis over the area. Owing to large topographical differences in the area, the formation of eastern basin cyclones, affected by the cyclogenesis and is associated with cold northerly flows.<sup>25</sup> The movement of cyclones is not well understood. In the western Mediterranean, depressions are frequently steered along the Mediterranean front by the temperature contrast, which results from colder continental air moving over the warmer sea. This front is particularly strong in spring. Roughly half of the central Basin depressions are steered over the Black Sea, and there is some evidence of steering by the upper flow along the axis of the subtropical jet. The movement of the eastern Basin depressions may be determined by the zonality of the upper flow and by the strength of the Siberian high.<sup>26</sup>

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<sup>23</sup> Karaca, M., A. Deniz, and M. Tayanç (2000) "Cyclone Track Variability over Turkey in Association with Regional Climate", *International Journal of Climatology*, 20, 1225-1236.

<sup>24</sup> Türkeş M. 2000. Climate change studies and activities in Turkey. In *Climate Change: Effects on Agriculture in Mediterranean Region*, 25-29 September Zaragoza.

<sup>25</sup> Tayanç, M., M. Karaca and H. N. Dalfes (1998), "March 1997 Cyclone (Blizzard) over the Eastern Mediterranean and Balkan Region Associated with Blocking", *Monthly Weather Review*, 126, 3036-3047.

<sup>26</sup> Karaca, M., A. Deniz, and M. Tayanç (2000) "Cyclone Track Variability over Turkey in Association with Regional Climate", *International Journal of Climatology*, 20, 1225-1236.

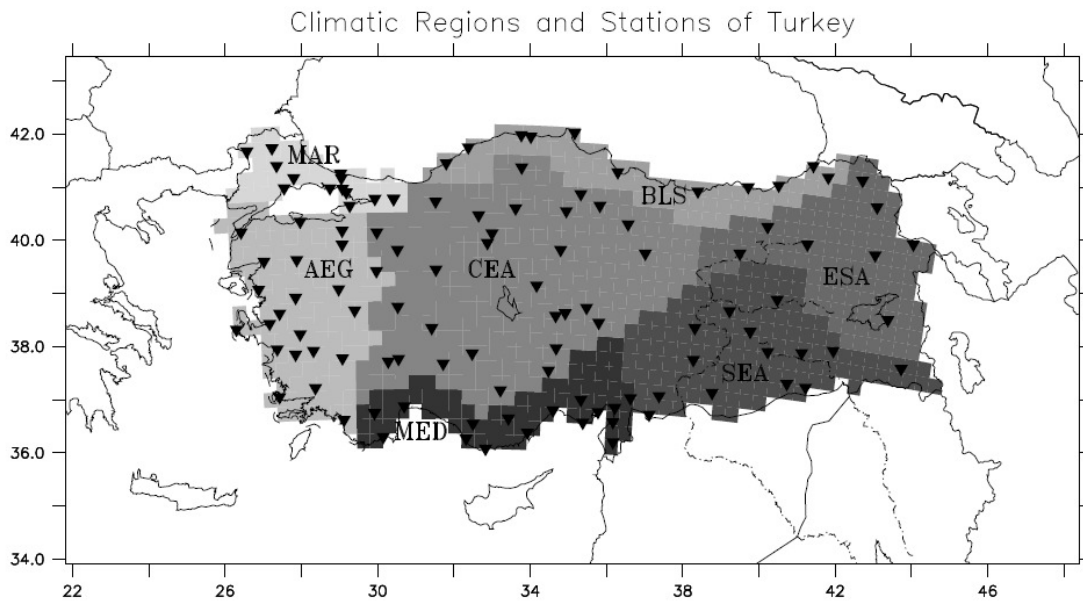


Figure 1. Redefined climate zones of Turkey in terms of regional-scale.<sup>27</sup>

The seven climate zones in regional scale over Turkey conventionally accepted by Turkish climatologists<sup>28</sup> are:

1. The Black Sea Region,
2. The Marmara Region,
3. The Aegean Region,
4. The Mediterranean Region,
5. The Central Anatolian Region,
6. The Eastern Anatolian Region,
7. The Southeastern Anatolian Region.

Unal et al. (2003) recently modified these zones, as presented in Figure 1 above.

<sup>27</sup> Unal, Y., Kindap, T. and Karaca, M. (2003) "Redefining Climate Zones for Turkey Using Cluster Analysis", *International Journal of Climatology*, 23, 1045 – 1055 .

<sup>28</sup> Unal, Y., Kindap, T. and Karaca, M. (2003) "Redefining Climate Zones for Turkey Using Cluster Analysis", *International Journal of Climatology*, 23, 1045 – 1055.

## **15. Annex D: Institutional Framework**

National development policies in Turkey are reviewed and implemented through development plans. These plans are authored by the State Planning Organization (SPO) in consultation with relevant state and civil society actors. Despite positive progress in the Seventh Plan Period, such as the adoption of legislation and setting up of institutional structures, preparation of the National Environment Strategy and Action Plan (NEAP) and increased public sensitivity towards a clean environment, the Eighth Plan identified that there remain a number of adversities. The Eighth Plan stated that one of the major shortcomings is that environmental policies have not been incorporated into economic and social policies in the former plan periods. Eighth Five-Year National Development Plan covering the 2001-2005 period aimed 'to ensure economic and social development by protecting human health, ecological balance and cultural, historical and aesthetic values'. In this context, the plan called for:

- an overview of priority areas defined within the NEAP in consultation with all relevant stakeholders;
- elaboration and implementation of long term strategies and policies that are aligned with the EU Acquis/practices and other international commitments made by Turkey;
- integration of environmental policies with social and economic policies, in particular through the use of instruments;
- improvement of the environmental management system and the institutions that directly or indirectly contribute to the solution of environmental problems, giving due consideration to public reconciliation and participation mechanisms;
- ensuring access to data and information on environment and development through improving the monitoring infrastructure, setting up of indicators –in particular for sustainable development- and assessment systems;
- sustainable use of natural resources and minimization of environmental risks, in particular through the effective use of EIA's and enhanced use of environmentally friendly technologies.

### **9th National Development Plan**

The ninth development plan is prepared as a basic strategic document to ease the EU accession process for Turkey covering a period of seven years (2006-2013), different from previous development plans for five years. The relevant principles of the development plan, which can be considered as parallel to sustainable development understanding are set as:

- Integrated approach on economic, social and cultural aspects is fundamental;
- It is essential to secure public participation and ownership through enhancing social dialogue and participation;
- Human centered development and management approach is fundamental;
- Prioritization for formulation of policies shall be done by considering the scarcity of resources;
- Implementations shall be done by the closest units to the citizens;
- Protection of natural and cultural assets and environment shall be secured considering next generations.

The development plan underlines the necessity to implement integrated approaches, improve the coordination mechanisms and to improve the capacity of the governmental institutions through trainings of experts to ease the EU accession process of Turkey.

In general, the development plan underlines the necessity of integrated approaches, improvements in education, employment, health and social security policies; overcoming the lack of coordinated and cooperative efforts; clarification of authorities and

overlapping issues of responsible organizations as well as regular arrangements especially on environmental field etc.

Although there are various implementation tools for integrating environmental concerns into other sector policies and implementation practices, such as review of legislation, strengthening enforcement mechanisms, establishment of horizontal (inter-ministerial) and vertical (central vs. local) coordination mechanisms, conduct of Strategic Environmental Impact Assessments (SEIA), their use is not reflected to the legislation and/or not implemented systematically across sectors and as stated in the DoA certain shortcomings are observed in:

- Technical knowledge and capacity for conducting integrated and multi-sectoral assessments based on sound information, scenarios, and cost benefit analyses to support sound decision making;
- Coordination among policy making authorities - i.e. Ministries and their affiliated organizations at the national level- and between the national and local levels- ie. Ministries and municipalities;
- Effective collaboration feedback mechanisms between the decision makers and those responsible for implementation at both the central and local levels ownership of and commitment to SD goals at the governmental, social (including private sector and the civil society organizations (CSO's) and individuals level.

Improved coordination among government organizations, increased flow of information, creation and institutionalization of SD networking mechanisms, acquisition of new cultures of inter-disciplinary participatory management, and improvements in the decentralization processes will alleviate these shortcomings. A holistic strategic approach -which links the short to medium and long term, set priorities for action, establish realistic targets and identify activities associated with clear institutional responsibilities and financial means – that is formulated and implemented on an iterative basis would enable Turkey to eliminate the above referred gaps and to take a major step towards sustainable development.

#### **Government ministries and other organizations:**

Although the action for adaptation to climate change may not be explicitly stated in their mandates, the ministries and institutions presented below have roles in the formulation and implementation of adaptation to climate change policies.

The **Under-Secretariat of the State Planning Organization (SPO)** attached to the Prime Ministry prepares five-year national development plans, its annual programs and annual investment plans. Turkey is currently implementing its 9th Development Plan (2007-2013). The SPO also prepares sectoral plans with due emphasis on economic and social policy issues, and approves all investment projects requiring public financing, and external finance (credit, grant and technical assistance). The SPO has the responsibility for ensuring the necessary coordination for the preparation and realization of yearly investment programs with direct implications for local administrations. In line with the National Program for EU Accession, the SPO has also prepared the Pre-National Development Plan (2004-2006) that incorporates targets according to Nomenclature of Territorial Units for Statistics (NUTS) classification criteria of the EU.

The **Ministry of Foreign Affairs (MFA)** is responsible for conducting and further promoting Turkey's international political, economic and cultural relations in the bilateral and multilateral context as well as contributing to peace, stability and prosperity in its region and beyond.

The **Ministry of Interior (MI)** which is organized at the central and provincial levels is responsible for protecting the internal safety and security and the public order, regulating the overall administration of the provinces, supervising the local administrations and

providing support for the development of the local administrations, carrying out services pertaining to population and citizenship, conducting services of civil defense against potential cases of disasters or war.

The **Ministry of Environment and Forestry (MOEF)** was established in 2003 by merging the Ministry of Environment and the Ministry of Forestry. The alliance of the two ministries unites the powers of the two former ministries to protect and improve the environment and forestlands in the country. Moreover, the alliance is also anticipated to establish the essential links among the socio-economic aspects of forestry and its nature conservation dimensions in the framework of sustainable livelihoods in forest areas, national parks, conservation areas, etc. The Ministry holds a particular importance regarding the environmental dimension of climate change. With support from UNDP, it has played a significant coordinating role in the preparatory process for the First National Communication to UNFCCC. Moreover, the MOEF has developed the National Action Plan for Desertification base on the sustainable use of water, in accordance with relevant plants established in the EU. The recent incorporation of the State Hydraulics Works (DSI) to the MOEF is to ensure that water conservation measures are put into place. The DSI is responsible for development of water resources for energy use, drinking and irrigation. DSI confronts challenges to conserve nature in its development activities.

The **Ministry of Industry and Trade (MIT)** is responsible for developing industrial policies for Turkey, taking account of economic and technological developments. It plays an important role in implementation of EU industrial sector legislation and policies. Strengthening of Small and Medium Enterprises (SME's) and role of women in the industrial sector are some of its sustainable development initiatives.

The **Ministry of Agriculture and Rural Affairs (MARA)** is responsible for development of the agriculture sector and overall rural development in the country. In the context of agriculture; research, training and extension services are under the responsibilities of the MARA. In the recent years MARA has taken steps to promote ecological agriculture, bio-safety and bio-diversity. MARA's contribution to sustainable development relies on its capacity to build its policies on the knowledge of the local needs and opportunities. The strong relationships between MARA and EU research centres and agronomic institutes has provided MARA with valuable new expertise over the past decade.

The **Ministry of Energy and Natural Resources (MENR)** is responsible for maintaining the sustainable use of natural resources for generating energy.

The **Ministry of Health (MH)** is responsible and authorized all health issues including environmental health. The Ministry of Health established a working group on adverse effects of climate changes on human health and the measures to be taken short, medium and long terms. Ministry of Health is also one of the main partner of FAO.

The general remit of **Ministry of National Education (MONE)** is to plan, implement, monitor and control education and training services targeted at teachers and students at all levels in educational institutions, to open pre-primary, primary, secondary and all kinds of formal and non-formal education institutions and to meet the accommodation and nutrition requirements of and to give financial support to young people in higher education.

The **Ministry of Labor and Social Security (MLSS)** is involved in social aspects of sustainable development and the role of women in industrial sector.

The **Turkish Statistics Institute (TUIK)** (formerly known as State Institute of Statistics-SIS) is the single national agency mandated with data collection and dissemination of processed data. TUIK develops and publishes Main Economic and Social Indicators as well as Population and Development indicators concerning Demography; Economy; Education; Gender; Social Development; General Health, Reproductive Health and Nutrition; Environment, and the MDG indicators.

The **Prime Ministry General Directorate of Women's Status (PMGDWS)** is responsible for the development and implementation of gender policies on the basis of CEDAW (Convention on the Elimination of All Forms of Discrimination against Woman) and Beijing Platforms.

**Municipalities and local administrations** are the main local authorities responsible to promote and implement sustainable development principles, and therefore climate change adaptation, at community level. They have a particular role in informing citizens, ensuring local democracy in decision-making and implementing good governance practices at local level. Their power to prepare local development plans reinforces their potential contribution to climate change.

**NGOs, Business Community and the Universities** are key stakeholders for implementing climate change policies. Current mechanisms need to be enhanced for their widespread and active involvement in policy formulation and implementation processes.

Other national level stakeholders include but are not limited to: General Secretariat for EU Affairs, Ministry of Public Works and Settlements, Ministry of Tourism, Ministry of Finance, Under-secretariat of Treasury.

#### **United Nations Agencies:**

##### ***United Nations Development Programme***

The United Nations Development Programme (UNDP) in Turkey established a strong partnership with the government of Turkey and a wide range of technical and civil society organizations and international partners involved in development cooperation in Turkey, including in the context of EU accession. In the field of Sustainable Development, UNDP enjoys years of cooperation with government partners such as the State Planning Organization, the Ministry of Environment and Forestry, Ministry of Energy and Natural Resources and Ministry of Agriculture. UNDP was a lead actor in Turkey's preparation for the WSSD. Through advocacy tools such as the global and national Human Development Reports, UNDP supports the analysis of Turkey's development policies and their impacts. With respect to Turkey's commitment at the Millennium Summit, UNDP Turkey together with the UN Country team also worked with the Government (in particular SPO and TUIK), research institutions and civil society organizations to prepare Turkey's first MDG Report as the principal tool for monitoring the status and performance towards attaining the MDGs in Turkey, and provides support to projects to this end.

UNDP assisted Turkey to prepare its First National Communication to the United Nations Framework Convention on Climate Change (UNFCCC). The aim of this report was to highlight the current green house gas emissions of Turkey, its potential trends and the policies the Government may consider during its long term planning. At present, UNDP, together with the Ministry of Environment and Forestry (MOEF), is designing a national action plan on climate change, which will include a Second National Communication to the UNFCCC. UNDP is also focusing its efforts on reinforcing the achievement of the MDGs and will embark on a new project to this end in cooperation with and funded by the State Planning Organisation (SPO). UNDP Turkey also plays an important role to assist Turkey to benefit from donor programs such as the Global Environmental Facility (GEF) in the area of climate change, biodiversity, land degradation, international waters, adaptation as well as enabling activities. Under this portfolio, UNDP Turkey assisted the government to prepare and submit several proposals at a large scale in the area of sustainable mobility, energy labeling, energy efficiency in buildings, land degradation and biodiversity ([www.undp.org.tr](http://www.undp.org.tr)). As part of the private sector partnership, UNDP is currently implementing a biodiversity project with under Baku-Tiblisi-Ceyhan Pipeline (BTC) Project. While under the GEF portfolio, UNDP is the leading agency to implement the GEF Black Sea Ecosystem Recovery Project, which is a regional project covering the



Black Sea. In short, for the specific area of sustainable development planning, mainstreaming and implementation, UNDP is a lead partner for the Government of Turkey.

### ***United Nations Industrial Development Organization***

The United Nations Industrial Development Organization (UNIDO) is one of the core UN Agencies for the UN Global Compact. UNIDO's mandate is to promote Sustainable Industrial Development in developing and transition countries in three priority areas, namely, i) Poverty Alleviation Through Productive Activities, ii) Trade Capacity Building and iii) Environment and Energy.

Since the inception of the UNIDO Office in Turkey in 1967, a large number of UNIDO projects and group training programmes have been implemented in Turkey, mostly funded by UNDP and directed towards development of Turkey. In 2000 the UNIDO Office in Ankara was converted into the UNIDO Centre for Regional Cooperation in Turkey. It is responsible for developing, coordinating and actively supporting the overall cooperation between UNIDO and the Government of Turkey, the academic community, the private sector and the civil society of the country for promoting Sustainable Industrial Development. The UNIDO Centre is also responsible for technical cooperation projects financed from by Turkish financial resources in developing and transition countries of Turkey's preference. Some recent UNIDO technical cooperation projects funded by Turkey, include technology foresight seminars, agro-industry-related workshops and SME development projects, which provided countries in the NUTS region, Middle East and Africa with opportunities to develop capacities of industrial development.

UNIDO has also implemented a large number of Montreal Protocol projects in Turkey since early 1990s and has been selected by the Government of Turkey as the implementing agency of the Stockholm Convention on Persistent Organic Pollutants (POPs) in 2003, which resulted in the preparation of the National Implementation Plan to eliminate POPs in early 2007. Another noteworthy achievement of UNIDO in the area of renewable energy in Turkey is the establishment of the International Centre for Hydrogen Energy Technologies (ICHET) in Istanbul following the signing of the Trust Fund Agreement of US\$ 40 million in October 2003, to be exclusively funded by the Government of Turkey for the initial period of 5 years.

### ***Food and Agriculture Organization of the United Nations***

The Food and Agriculture Organization of the United Nations is the responsible UN specialized agency to support the international efforts to defeat hunger. FAO's mandate is to raise levels of nutrition, improve agricultural productivity, better the livelihood of rural populations and contribute to the growth of the world economy. FAO helps its member countries to improve agriculture and food security, forestry and fisheries practices and ensure good nutrition for all with a focused special attention on developing rural areas, home to 70 percent of the world's poor and hungry people. Within its reform process, FAO established a new division called Natural Resources Management and Climate (NRC) at the Assistant Director General level with two separate department, Climate and Environment in order to better address the climate change issue.

FAO Turkey Representation was established in 1982 and its Programme in Turkey is based on the Turkish Government's requests according to its prioritised needs. FAO's main partners are the Ministry of Agriculture and Rural Affairs and the Ministry of Environment and Forestry. In the last few years FAO assistance to Turkey has been mainly in the fields of Nutrition, Food Quality and Safety, Food Security and Trade, Organic Agriculture, Plant Production and Protection, Fisheries, Forestry and Animal Health, as well as Remote Sensing Techniques for Crop Production Forecasting in relation to climate data.

Since the outbreak of Highly Pathogenic Avian Influenza (HPAI) in Turkey in October 2005, FAO was requested by the Turkish Government to provide technical assistance and emergency intervention and support on monitoring, surveillance and control activities on AI in 2006 and 2007 outbreaks. Within this framework, FAO has provided international and national consultancy services of the experts from the Animal Health Division of FAO Headquarters as well as other well known International Animal Health Institutions (OIE and others). FAO's intervention to combat AI was coordinated and integrated within UN Country Team in particular WHO and UNICEF as well as with the World Bank and EC Delegation in Ankara.

FAO Sub-regional Office for Central Asian Countries (FAO SEC) covering Uzbekistan, Tajikistan, Kazakhstan, Turkmenistan, and Kyrgyzstan as well as Azerbaijan and Turkey was established in mid 2006. Since early 2007, FAO-SEC is active in Ankara extending its assistance to the member countries via its technical officers who are responsible namely for Forestry, Land and Water, Agricultural Investments, Animal Health and Production, Plant Production and Health, and Fisheries. FAO's assistance to the member countries is being undertaken with a strong collaboration of the Turkish Government. The availability within Turkey of this varied multi-specialized FAO expertise represents a good asset to enlarge FAO's intervention and technical support to development projects on climate change and rural youth and employment.

## 16. Annex E: Seyhan River Basin Economy

Understanding the impacts of climate change, and how best to adapt to them, is a research and policy area in its preliminary stage. The Seyhan Basin in this respect is no exception. The Seyhan Basin region as a whole covers three provinces, namely Adana, Kayseri and Sivas with economic domination by Adana. The agricultural output of the Basin makes approximately 10 percent of Turkey's agricultural output. The land size is only 7 percent of Turkey's cultivatable land. Some of the basic data for Adana can be summarized as follows.

**TABLE 1. THE MAIN AGRICULTURAL INDICATORS OF ADANA**

<b>INDICATOR</b>	<b>1995</b>	<b>2000</b>
Land Use	718135	583041
Value of Agr. Prod YTL	54491851	466526367
Cultivated land (Hectares)	632064	507211
Value of Live Animals YTL	11482358	91662015
Land Use (Vegetables) (Hectares)	41617	25033
Land Use (Long Lasting Plants) (Hectares)	39240	39287
Land Use (Vineyards) (Hectares)	7094	5600
Land Use (Fruit Trees) (Hectares)	29552	30676
Land Use (Olive Trees) (Hectares)	2594	3011
Land Use (Following) (Hectares)	12326	11510
Land Use (Animal Feed Plants) (Hectares)	59327	86735

In terms of per capita income, Adana ranks within the first 8 largest cities in Turkey. Kayseri ranks within the first 17 in terms of the highest per capita income. In the Seyhan Basin the most common agricultural production is grain, dominated by wheat.

**TABLE 2. PER CAPITA INCOME ADANA vs. TURKEY**

<b>Years</b>	<b>Adana USD</b>	<b>Turkey USD</b>	<b>Adana /Turkey USD</b>
1995	2844	2727	1,04
1996	2928	2888	1,01
1997	3553	3021	1,18
1998	3707	3176	1,17
1999	3304	2847	1,16
2000	3286	2941	1,12
2001	2339	2146	1,09

Adana together with Mersin (the two cities of the Eastern Mediterranean geographic unit of Turkey with mutuality in economic benefit) seems to be facing a decline in agricultural employment, towards the service sector. With the climatic change, further sectoral shifts in employment and output should be expected.

**TABLE 3:** COMPOSITION OF EMPLOYMENT IN ADANA

<b>YEARS</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>
Region	Adana, Mersin	Adana, Mersin	Adana, Mersin
Sectors	Employment Rate (%)		
Agricultural	32	27,4	26,1
Industry	21,6	21,8	21,5
Service	46,4	50,8	52,3
Unemployment	13,6	17,2	16,2

The Seyhan Basin Region, especially Adana and Mersin, on the overall, is receiving positive migration, especially from the southeastern part of Turkey and is witnessing an overall population increase.

**TABLE 4.** MID-YEAR POPULATION OF ADANA

<b>YEARS</b>	<b>Mid Year Population (number)</b>
1995	1250789
2000	1388512
2005	1508553
2010	1627128

It is believed that there are potential benefits resulting from climate change in some economic sectors, especially tourism and recreation, while there will be initial adaptation problems faced in the agriculture sector as a whole, but we can be less certain about the scale effects of such benefits and they are unlikely to be distributed evenly across the sector.

## **17. Annex F: Thematic Task Forces (TTF's)**

TTF's are envisaged as a set of platforms for focused discussions. They will be organized by the Thematic Focal Points (outposts of the TAC to critical ministries/agencies). TTF's will comprise a core membership, and a wider network of ministerial staff and other stakeholders will be invited to attend meetings with respect to the agenda. The core membership of TTF's will consist of the related sector nominated by the relevant ministries and technical staff drawn from key departments of ministries involved in the implementation of adaptation to climate change i.e. those with responsibility for key indicators of climate change and a similar number of key opinion formers from non-governmental organizations and the private sector.

TTF members will:

- Provide information and supporting data on implementation of existing policies;
- Contribute in discussions geared to current climate change patterns and the options for eliminating them;
- Provide the sector specific inputs for drafting of the Adaptation Capacity Strategy Policy Paper;
- Provide adequate technical staff to work with the Programme Manager, TAC and contribute in timely and smooth implementation of the project;
- Accept TTF experts out posted to their Ministry/Agency and facilitate their work;
- Participate actively in the events of the international forums/platforms/seminars on climate change adaptation;
- TTF will also collaborate closely with international experts and will provide the necessary documents, statistical information etc. in English to the international consultants;
- TTF will also facilitate and if necessary provide instantaneous translation in English to the international consultants during local meetings;
- TTF will be responsible to produce the necessary sectoral summary documents both in English and in Turkish to facilitate the Project;
- TTF will take the lead in the organization of meetings that the international consultants require during their consultancy work;
- TTF will take initial steps to develop research agendas for the adaptation to climate change plans of Turkey;
- TTF members will also assist the project team to produce scientific papers in the field of sustainable development;

The Programme Manager will be responsible for preparing the terms of reference for each TTF, facilitating their meetings and compiling results into the Policy Paper on: 'Options for Adaptation' and its technical annexes.

## **18. Annex G: List of Acronyms**

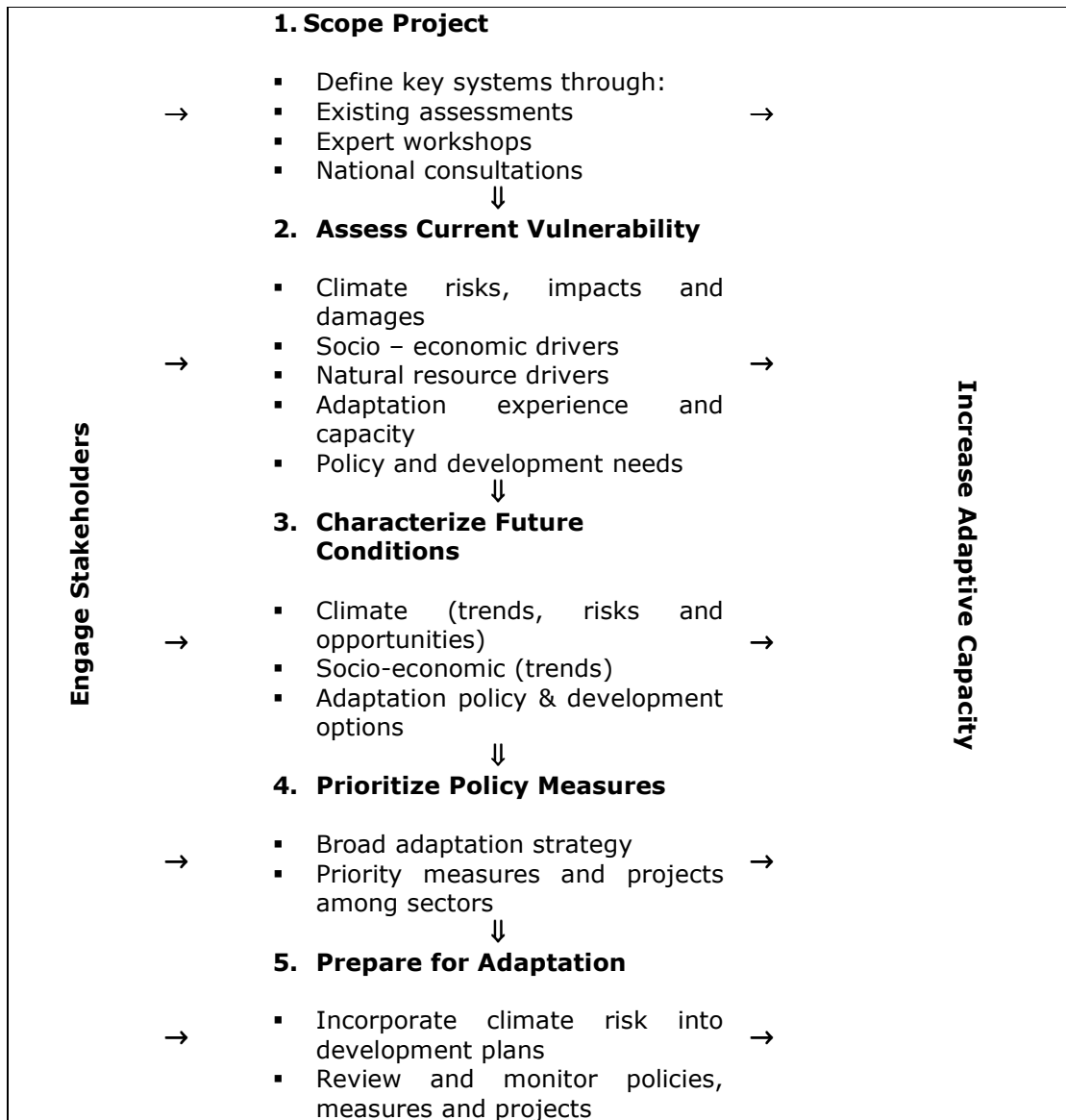
ADR	Assessment of Development Results
AAF	Administering Agent Fee
CBCC	Coordinating Board on Climate Change
CCF	Country Cooperation Framework
IPCC	Intergovernmental Panel on Climate Change
IPCC/AR4	Intergovernmental Panel on Climate Change, Fourth Annual Review
JAS	July, August, September
JP	Joint Programme
JPD	Joint Programme Document
M&E	Monitoring and Evaluation
m/m	man/month
MARA	Ministry of Agriculture and Rural Affairs
MDGs	Millennium Development Goals
MDTF	Multi Donor Trust Fund
MFA	Ministry of Foreign Affairs
MOENR	Ministry of Energy and Natural Resources
MONE	Ministry of National Education
MOEF	Ministry of Environment and Forestry
MOH	Ministry of Health
MIA	Ministry of Interior Affairs
MIT	Ministry of Industry and Trade
MP	Meeting of the Parties under Kyoto Protocol
MOT	Ministry of Transport
NAP	National Action Plan
NEAP	National Environmental Action Plan
NGOs	Non Governmental Organizations
NSC	National Steering Committee
NUTS	Nomenclature of Territorial Units for Statistics
OCHA	Office for the Coordination of Humanitarian Affairs
PM	Programme Manager
PMC	Programme Management Committee

PMF	Project Monitoring Framework
PPP	Public Private Partnerships
RC	Resident Coordinator
REC	Regional Environmental Center
RIHN	Research Institute for Humanity and Nature, Kyoto, Japan
RPC	Regional Project Coordinator
SD	Sustainable Development
SEIA	Strategic Environmental Impact Assessment
SME	Small and Medium Sized Enterprises
SPO	State Planning Organization
TAC	Technical Advisory Committee
TBD	To Be Determined
TEFER	Turkey Earthquake and Flood Emergency Recovery Project
TSMS	State Meteorological Services
TTF	Thematic Task Force
TUBITAK	Turkish Scientific and Technological Research Authority
TUGEM	Directorate-General for Agricultural Production
TUIK	Turkish Statistics Institute
UK	United Kingdom
UN	United Nations
UNCT	United Nations Country Team
UNDAF	United Nations Development Action Framework
UNDG	United Nations Development Group
UNDP	United Nations Development Programme
UNDP CO	UNDP Country Office
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UNFPA	United Nations Population Fund
UNHCR	United Nations High Commission for Refugees
UNIC	United Nations Information Center
UNICEF	United Nations Children's Fund
UNIDO	United Nations Industrial Development Organization

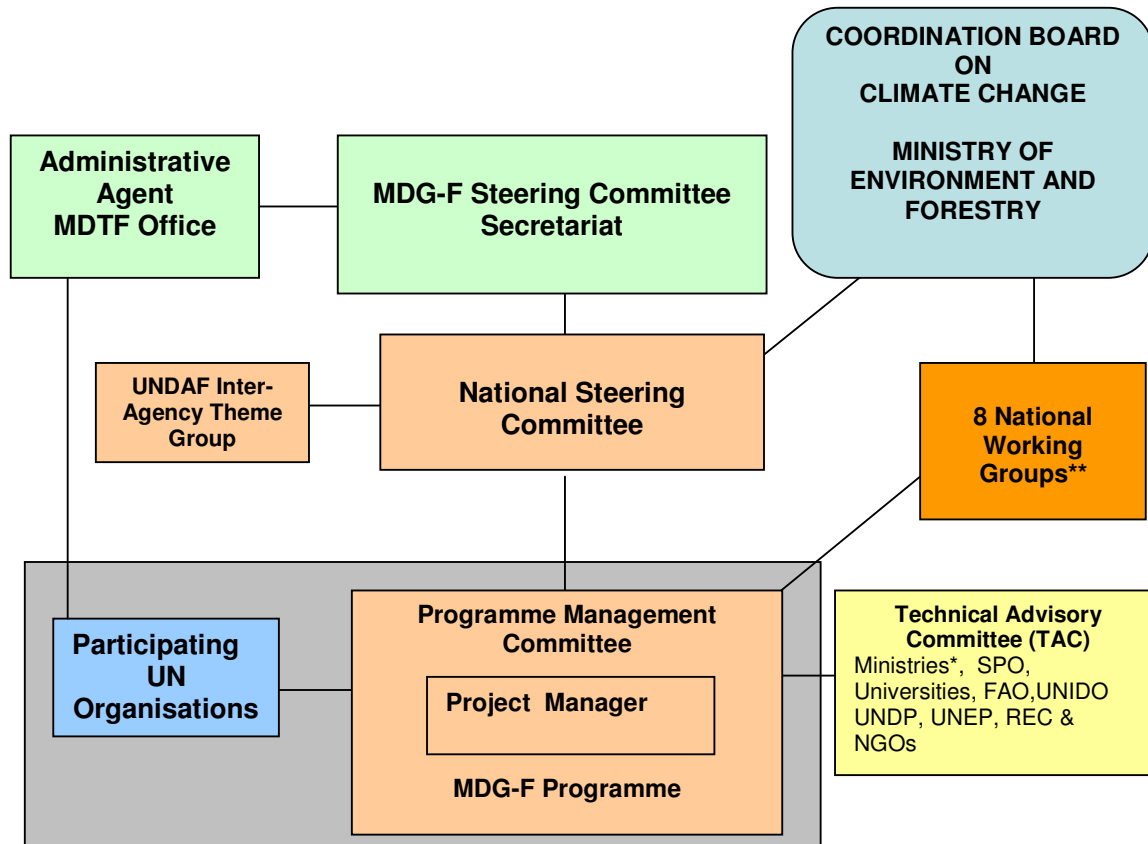
UNISDR	United Nations International Strategy for Disaster Reduction
UNODC	United Nations Office on Drugs and Crime
USD	United States Dollar
WFP	World Food Programme
WHO	World Health Organisation
WMO/GWP	World Meteorological Organisation/Global Water Partnership
WSSD	World Summit on Sustainable Development
YTL	Yeni Turk Lira



## 19. Annex H: The Adaptation Policy Framework



## 20. Annex I: Implementation Framework



\* Ministry of Agriculture and Rural Affairs  
 Ministry of Energy and National Resources  
 Ministry of Environment and Forestry  
 Ministry of Interior  
 Ministry of Public Works and Construction  
 Ministry of Trade and Industry  
 State Planning Organization  
 Turkish Statistical Institute

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- Researching the Effects of Climate Change
- Emission Inventory of GHG
- Mitigation of GHG from Industry, Building, Waste Management and Service Sector
- Mitigation of GHG from Energy Sectors
- Mitigation of GHG from Transportation
- Land Use, Land Use Change and Forestry
- Development of Policies and Strategies
- Education and Public Awareness

## **Project Period**

The work will be carried out during thirty six months following the signature of the contract. The Inception Report will include the agreed timetable for project activities and outputs.

**Inception Phase:** The UNDP shall start with an Inception Phase. The purpose of this phase is to fine-tune and further detail the implementation plan with the realities of the situation and developments in Turkey, and of the beneficiary and the stakeholders.

(Months 1-2)

- ✓ Project office fully established
- ✓ Recruitment and contracting of key project staffs
- ✓ Preparation of the Work Plan and Procurement Plans
- ✓ Elaboration of a detailed set of project performance indicators
- ✓ Preparation of the criteria for the pilot projects component
- ✓ Inception Workshop

### **Implementation Phase:**

(Months 3-30)

- ✓ Recruitment of international and local experts
- ✓ Elaboration of the Climate Change Adaptation Strategy Paper and its technical annexes through a participatory process
- ✓ Design of a communication and media outreach strategy for diffusion of adaptation to climate change principles and the MDG concepts across society
- ✓ Dissemination of the Pilot Program to stakeholders through at least 10 dissemination meetings and advertisements
- ✓ Establishment of the Technical Advisory Committee (TAC)
- ✓ Implementation of the Pilot Projects
- ✓ Design of a monitoring and evaluation framework
- ✓ Testing of the core set of MDG indicators
- ✓ Provision of information on project activities and preparation of printed and audiovisual material to support capacity building and advocacy
- ✓ Analysis of the adaptive capacity to climate change of the relevant sectors, MDG concepts in national policy making (process indicators)
- ✓ Analysis of public level endorsement of Adaptation to Climate Change and MDGs through surveys and other applicable methods
- ✓ Publications
- ✓ Ensure that all Outcomes 1, 2, 3 and 4 are implemented

### **Exit Strategy and Wrap Up**

(Months 30-36)

- ✓ Evaluation of Lessons Learned from the Outcomes 1, 2, 3 and 4
- ✓ Organization of a donors meeting and a high level conference aiming better acknowledgement adaptation to climate change principles and project outcomes, notably by high level decision makers, representatives of main stakeholder groups and the donor community

## **22. Annex J: Generic Terms of Reference for the National Steering Committee and Programme Management Committee**

**Terms of Reference and Rules of Procedure for MDG-F National Steering Committee (NSC) in Turkey for programmes funded by UNDP-Spain Millennium Development Goals Achievement Fund.**

### **Part I: Terms of Reference – National Steering Committee**

#### **1. Introduction**

The National Steering Committee in Turkey (the “NSC”) is established to oversee and coordinate the operations of the MDGF 1680: Enhancing the Capacity of Turkey to Adapt to Climate Change in accordance with the Terms of Reference of the Fund, dated 10.10.2007.

#### **2. Role of the NSC**

The NSC will have overall responsibility for Programme activities. It will provide strategic guidance and oversight and approve the Programme Document including subsequent revisions and Annual Work Plans and Budgets. The NSC will be co-chaired by the UN Resident Coordinator (RC) and a Government Representative. To the extent possible, the NSC will use existing coordination mechanisms in Turkey to undertake the process of planning and stakeholder consultation that the programme operations will require.

#### **3. Structure and Composition**

- ✓ **Membership:** The members of the NSC will include:
  - A representative of the Government of Turkey as Co-chairperson: Mr. Nuri Duman, Under secretariat of State Planning Organization (SPO).
  - The United Nations Resident Coordinator (RC), as Co-chairperson: Mr. Mahmood A. Ayub, UN Resident Coordinator.
  - A local representative from Government of Spain: Ms. Maria Molina Alvarez de Toledo, Embassy of Kingdom of Spain.
- ✓ **Frequency of meetings:** The NSC will normally meet semi-annually. Additional meetings based on the requirements of the Programme may be convened exceptionally. The meetings will be convened by the Chairperson. For emergency issues the NSC may conduct its business electronically.
- ✓ **Agenda:** The agenda and supporting documentation will be prepared and disseminated by the Resident Coordinator’s office. NSC members may make requests for items to be included on the agenda.
- ✓ **Quorum:** A quorum of the NSC will consist of all the committee members.
- ✓ **Observers:** Non-governmental, civil society and other organizations may be invited to participate in NSC meetings as observers, based on the following two primary criteria: (a) Involvement of the organization in projects financed or to be financed from the Programme; and (b) Impact of projects financed from the Joint Programme on the activities of the organisation. Decisions to invite observers or representatives of the relevant participating UN organisation will be made by the Co-chairs.

#### **4. Responsibilities of the NSC**

The primary responsibilities of the NSC will be to:

- Review and approve these Terms of Reference (TOR) and Rules of Procedure, based on the generic TOR, and amend them, as necessary, in consultation with the AA.

- Review and endorse the Programme Document and Annual Work Plan and Budget submitted by participating UN organisations; ensure their conformity with the requirements of the Fund and in particular decisions of the MDG-F Steering Committee; ensure the quality of programme documents to receive funding from the Fund.
- Discuss the Joint Programme requirements and priorities concerning, *inter alia*:
  - programme management, including consistent and common approaches to project costing, cost recovery, implementation modalities, results-based reporting and impact assessment,
  - information management, including appropriate Fund and donor visibility.
- Ensure that appropriate consultative processes take place with key stakeholders at the country level in order to avoid duplication or overlap between the Fund and other funding mechanisms.
- Approve the reporting mechanism for the programme.
- Review findings of the summary audit reports consolidated by the Administrative Agent; highlight lessons learned and periodically discuss follow-up by participating UN organisations on recommended actions with programme-wide impact.

## 5. Decisions

The NSC should make decisions by consensus. The decisions of the NSC will be duly recorded. Prior to presenting a position on an issue to the NSC, the participating UN organisation will ensure that this is in line with their regulatory requirements. Any decision by the NSC which deviates from a previously endorsed position has to be referred back to the participating UN organisation for endorsement in order to be binding.

Decisions on programme documents, including revisions and Annual Workplans and Budgets will only be taken upon completion of a review by the Programme Management Committee (PMC).

## 6. Support to the NSC

The NSC will establish a support function, which reports to the Chairpersons of the NSC. The support function will facilitate the work of the NSC. The RC's office will provide the primary support to the NSC.

Under the direct supervision of the Chairpersons of the NSC, the NSC Support Office will be responsible for, *inter alia*:

- Periodically reviewing the Rules of Procedure of the NSC, and in consultation with the Co-chairs, recommend changes or revisions to the NSC.
- Liaising with the PMC on programme review and analysis.
- Calling and organising meetings of the NSC.
- Developing and circulating meeting agendas and minutes.
- Documenting, communicating and ensuring follow-up of the NSC's decisions particularly ensuring the submission – no later than one business day after the NSC meeting – of appropriately signed and complete documentation on approved programme related documents to the Administrative Agent (the UNDP Multi-Donor Trust Fund Office in New York).

## 7. Public Disclosure

The NSC will ensure that decisions regarding programme approvals, periodic reports on the progress of implementation of the programme and associated external evaluations are made available for public information. Such reports and documents may include: records of decisions, summary sheets of approved Joint Programmes, annual financial and progress reports, summary of internal and external programmatic evaluation reports.

The NSC will take all reasonable steps to ensure the accuracy of such documents and that confidential materials are not disclosed.

The participating UN organisations will also take reasonable steps to ensure the accuracy of their postings on their respective websites regarding their programme operations and activities, in consultation with the NSC.

## ***Part II: Terms of Reference – Programme Management Committee***

### **1. Programme Management Committee**

The NSC shall ensure that Programme Management Committee (PMC) is established to assume responsibility for the operational coordination of the Joint Programme. The PMC's membership will consist of relevant implementing parties such as FAO, UNEP, UNDP and UNIDO, Ministry of Environment and Forestry, Ministry of Agriculture and Rural Affairs, Ministry of Industry and Trade, Cukurova University, Istanbul Technical University and civil society representatives as appropriate. The NSC will oversee that the PMC:

- Ensures operational coordination;
- Appoints a Programme Manager, Technical Advisory Committee (TAC), Regional Project Coordinator (RPC) and Financial and Administer Officer (F&AO);
- Manages programme resources to achieve the outcomes and output defined in the programme;
- Aligns MDG-F funded activities with the UNDAF approved strategic priorities;
- Establishes programme baselines to enable sound monitoring and evaluation;
- Establishes adequate reporting mechanisms in the programme;
- Integrates work plans, budgets, reports and other programme related documents; and ensures that budget overlaps or gaps are addressed;
- Provides technical and substantive leadership regarding the activities envisaged in the Annual Work Plan and provides technical advice to the NSC;
- Establishes a communication and public information plans;
- Makes recommendation on re-allocations and budget revisions to the NSC;
- Addresses emerging management and implementation problems; and
- Identifies emerging lessons learned.

The RC or his/her representative will chair. Experts can be invited as observers to the PMC meetings when needed. The PMC will normally meet quarterly.

## ***Part III: Rules of Procedure - National Steering Committee***

### **1. Review of Strategy**

The NSC will review the progress of the Joint Programme to ensure coherence and collaboration with the Programme and other national programmes, maintaining close collaboration with national authorities to ensure flexible adaptation of MDG-F funded activities.

### **2. Funding release**

- Based on the approval of the NSC and the receipt of duly signed Submission Form and relevant Project Document, the Administrative Agent will transfer approved funds to the particular participating UN organisations, after ensuring consistency with programme document signed by the participating UN organizations.
- The first installment of funds will be transferred within three to four business days from receipt of documentation from the NSC. Installments are annual and the first release will be made in accordance with the budget of year one.
- Subsequent installments will be in accordance with Annual Work Plans approved by the NSC. The release of funds is subject to meeting a minimum expenditure threshold of 70% of the previous fund release to the participating UN organisations combined.
- If the 70% expenditure threshold is not met funds will not be released to any agency,

regardless of the threshold being met by an individual Participating UN Organization.

- If the overall expenditure of the programme reaches 70% before the end of the twelve-month period, the participating agencies may upon endorsement by the NSC request the MDTF Office to release the next installment ahead of schedule.

### 3. Reporting

- In line with the Memorandum of Understanding (MOU) between the Administrative Agent and participating UN organisations, the latter will submit, on an annual basis, financial and progress reports to the Administrative Agent. The Administrative Agent is responsible for consolidated reporting to the NSC at the country and the Fund Steering Committee at the global level, respectively.
- The PMC will sign off on the Narrative Joint Programme Progress Report before it is submitted to the Administrative Agent.
- The Office of the Resident Coordinator will ensure that the AA's Consolidated Joint Programme Progress Reports are distributed to NSC members and other relevant parties.
- Decisions and comments by the NSC will be shared with all stakeholders in order to ensure the full coordination and coherence of MDG-F efforts.
- The MDTF Office will issue an annual AA Management Brief for each programme, which contains analysis of fiduciary requirements and key management achievements and challenges as well as recommendations for improvements or corrective action as required. The assessment, takes into account latest policy direction from the Secretariat and Steering Committee; best practices observed throughout Fund activities; audit recommendations; MTR observations; and adherence to Rules and regulations. The AA Management Briefs will be written in English.
- At the Fund-wide level, the MDTF Office designs reporting systems and mechanisms to facilitate that fiduciary requirement can be met by the Participating UN Agencies. The MDTF office will provide the Consolidated Joint Programme Progress Report for each programme and other reports as appropriate to the Fund Steering Committee through the Secretariat.
- Participating UN Organizations will be encouraged to provide Quarterly Updates. The Quarterly Updates would be provided at the outcome level. The Quarterly Update is designed to satisfy basic information requirements to serve as a high level management tool for the Fund, while still being easy for the Country Teams to comply with. The MDTF Office will design and role out an online system to capture the Quarterly Updates.
- Consolidated annual reports should include a section on the activity of the NSC.
- Timeline for submission of reports is shown in the chart below.

Report Name	Coordinating Author /Consolidator	Approving Authority	Dead-Line (reporting period: 1 Jan - 31 Dec)	Required Language
<b>Consolidated Joint Programme Progress Report</b> (including AA Management Brief, JP Narrative Report and Financial Reports)	MDTF Office	MDTF Executive Coordinator	31 May	AA Management Brief in English
<b>Narrative Joint Programme Report</b>	Participating UN Organizations jointly at Country Level	PMC	28 February	Working Language of CO/English
<b>Financial Progress Reports</b>	Participating UN Organizations HQ Level	Financial Officer/ Comptroller	31 March	English

## **23. Annex K: Implementation of Policy Changes**

Policy analysis is a systematic evaluation of the technical and political implications of alternative policies or programs intended to solve or lessen social, economic, or physical problems. Policy analysis refers to both the process of assessing policies or programs, and the product of that analysis. We can identify six steps in the policy analysis process. First, verify, define, and detail the problem. This involves a clear definition of the problem to be resolved as, in some cases, it is not very clear which problem or problems a particular policy is intended to solve. Secondly, establish the evaluation criteria to be used in comparing the various policy alternatives. Some of the key elements of such criteria include the cost of implementing a particular alternative, the net benefit of the alternative, effectiveness of the alternative, efficiency of the alternative, legality of the alternative, administrative ease of the alternative, and political acceptability/feasibility of the alternative. It should, however, be noted that sometimes the person or group interested in the results of the policy analysis may dictate the direction or evaluation criteria to be followed. Thirdly, identify alternatives. In this step, alternative policy actions, including the no-action alternative, are generated. Fourthly, evaluate alternative policies. In this step, each strategy/alternative is evaluated on the basis of the earlier established criteria. Fifthly, display and distinguish among alternatives. This step involves distinguishing among alternatives. In making comparison and distinction of each alternative, it is important to consider economic, political, legal, and administrative ramifications of each alternative. Lastly, monitor the implemented policy. In this step, the implemented policy is monitored to check whether it is being implemented according to plan and whether the interim or actual results are the desired ones (Kimenyi et al. UNEP 2004)<sup>29</sup>.

Specialists in environmental policy have identified four phases for conducting policy design, implementation and evaluation for environmental issues. These will form the basis for the activities under Outcome 1. These are:

- Assembling existing information in a structured way. This involves careful definition of the problem and the interest of the stakeholder groups, identifying the goal of the policy, baseline conditions and long term viability of the recommended package.
- Drafting the policy options. This involves identifying trade-offs among the options, environmental effectiveness, policy windows, ease of introducing the policy, acceptability and limitations of the options.
- Engaging stakeholders in refining the policy choice. This requires consideration of the key stakeholders focusing on who to involve and how to structure their input to make the policy choice appropriate for their needs.
- Implementation and evaluation of the policy. This involves identifying the impacts of each option and ranking the various alternatives to identify the most appropriate one.

These phases form the basis for capacity building on mainstreaming environment issues into development planning besides development of skills on technical aspects of the environmental issues under consideration such as climatic changes (Kimenyi et al, UNEP 2004).

More specific activities include:

- Baseline analysis of legal system and frameworks;
- Gap analysis/needs analysis/climate risk screening;
- Institutional mapping and stakeholder consultations from regulators, users to communities;

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<sup>29</sup> Mainstreaming environment into development planning. UNEP Technical Paper No. 4.



- Stakeholder consultations using participatory vulnerability and coping assessment;
- Risk analysis and selection of options/entry points;
- Redraft Laws, revise rural development plans;
- Internal legal review;
- Adoption of changes (depending on law, norms and regulatory framework);
- Allocation of resources towards implementation;
- Awareness raising of parliamentarians or other relevant stakeholders involved in legislation;
- Identify institutional changes needed, if any, to implement changes;
- Develop an institutional capacity building plan;
- Trickle down to those involved in implementation of law.

In order to mainstream climate adaptation, it is essential that serious consideration be given, at a very early stage, to:

- the climate-related issues that matter now to the community, region, or country,
- the management or coping strategies currently employed to deal with those conditions, and
- the policy and decision structures that exist now (and might exist in the future) to deal with such conditions (Smit et al. UNEP, 2004).<sup>30</sup>

It is sometimes suggested that particular assessment or evaluation “tools” may assist in selecting adaptation options. In practice these have mixed utility in achieving mainstreaming. Examples of such tools include:

- Cost benefit Analysis
- Cost Effectiveness Analysis
- Multiple Criteria Evaluation
- Social Accounting Matrices
- General Equilibrium Modeling
- Risk Assessment and Risk Management
- Sustainable Livelihoods Frameworks
- Participatory Vulnerability Assessment

The tool most commonly used for managing environmental risk (also climate risk) are risk management approaches and environmental impact assessments. These are tools may be useful for instituting legislative and regulatory capacity in Turkey for watershed management for risk management. However, because the nature of climate is one of continuous changes to climate, a climate monitoring system is necessary and a flexible approach to managing resources as these changes occur. This reinforcement is the emphasis of Outcome 2.

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<sup>30</sup> Smit, B. and Benhin, J. 2004. Tools and methodologies for mainstreaming vulnerability and adaptation to climate change into sustainable development planning. UNEP Technical Paper No. 5.

## **24. Annex L: Terms of References for TAC, PM, RPC, F&AO**

### **Technical Advisory Committee (TAC)**

The Technical Advisory Committee (TAC) provides technical oversight for the Joint Programme. One of the important roles of the TAC will be to review and evaluate pilot project proposals submitted in Outcome 3. The TAC will be composed of 8-10 members. The Committee members should attend all meetings. Any absence must be recorded and explained in the progress reports, and Evaluation Report. Any TAC member who withdraws from the TAC for whatever reason must be replaced following the standard procedure for appointing members of the TAC. The chairman of the evaluation committee determines to what extent the evaluation process must be restarted. Such a decision as well as any decision relating to the replacement of a committee member must be recorded and justified in the evaluation report. All voting members of the TAC have equal voting rights. The names and functions of all those involved in the evaluation process must be recorded in the Evaluation Report. The TAC should be formed early enough to ensure the availability of the designated members (and any observer nominated by the PMC, in the case of decentralized ex-ante control) during the period necessary to prepare and conduct the evaluation process. The evaluation of proposals should be completed as soon as possible.

### **Project Manager (PM) (36 w-m/m, Local / International Experience)**

The Project Manager (PM) will be available for the whole contract period and should have a solid background in development of integrated action/implementation plans, integrated management approaches, environmental management, policy formulation, and coordinating/facilitating working groups, stakeholder relations including central and local governmental and non-governmental institutions and communities as well as private sector and maintaining integrity of the outputs.

The Project Manager should have similar project experience (i.e. sustainable development; climate change; integrated policy development; integrated environmental management etc.) in Turkey and abroad with EC member state or accession country experience an asset. Proven negotiation skills at ministerial and local level are required.

### **Qualifications and Skills**

The Project Manager should have:

- Graduate level qualification in related field (social sciences, environmental science and/or engineering, economics, natural sciences and/ or planning (education and/or experience on sustainable development is an asset).
- Excellent communication and proven leadership skills as a team leader
- Excellent mediating and facilitating skills
- Full computer literacy and excellent fluency in English

Professional experience:

- Minimum of 10 years professional experience
- Minimum 5 years proven experience in the management of international projects in similar fields
- Experience in administration, programme planning, monitoring and reporting

Specific experience:

The Project Manager should have specific experience in at least four (4) of the following key areas:

- Minimum 5 years experience in programme execution with relation to implementation of sustainable development and/or climate change
- Awareness and understanding of climate agenda in Turkey
- Awareness and understanding of climate agenda in the international level

- Awareness and understanding of concept of adaptation
- Minimum of 5 years experience relating to coordinating integrated planning projects
- Minimum of 5 years experience in Project Cycle Management
- Minimum 3 years of experience in facilitating roundtables and platform discussions
- Minimum of 3 years experience of preparation of Terms of Reference for consultancy contracts
- Minimum of 3 years practical experience on working with local communities
- Minimum of 3 years practical experience on working with central and local decision-makers
- Good understanding of the Kyoto process, IPCC, WSSD, EU strategy on sustainable development and climate change
- Experience in global and international meetings on various climate change and sustainable development topics
- Experience with UN/UNDP system and procedures (i.e., procurement, contracting, communication and other financial issues).

**Specific tasks and responsibilities:**

- Coordinating and managing the project in liaison with the Ministry of Environment and Forestry; the State Planning Organization; other governmental counterparts; partner UN organizations; partner academic institutions; Thematic Task Forces; Project Management Committee (PMC), and other stakeholders
- Managing the Project Team and coordinating the Consultants
- Supervising the management of the projects budget
- Checking that the project outputs are in accordance with the Project Document and the work plan
- Checking the translations of all reports and deliverables
- Ensure the preparation and delivering of all project management related reports and other deliverables
- Informing and advising the project counterparts through (PMC) on any issue likely to affect the financial resources or the scope of the activities foreseen
- Defining measurable indicators for subsequent programme monitoring and evaluation.
- Ensuring the harmonization and coherence of central and regional/local activities and project outputs together with the PMC.

The PM shall ensure that the project team complies with all the procedural and contractual obligations of this contract. In this context, it is his/her responsibility to establish the internal management procedures required, particularly as regards procurement, tendering, contracting, reporting, editing and accounting requirements in compliance with UNDP procedures. The PM will be responsible for establishing the accounting, budgeting and reporting procedures in accordance with UNDP procedures. S/he shall co-ordinate, supervise, manage, monitor and evaluate all aspects of the project's implementation including financial administration. The PM will, if necessary, identify and recruit additional short-term experts and/or replacements for approved members of the project team. S/he will be responsible for submitting suitable CVs to the UNDP for final approval before the appointment is confirmed and/or the new member of the project team carries out any work (or incurs any other costs) under the contract.

The PM will have overall responsibility for the project, including primary contact with the stakeholders and the PMC concerning whether project activities are meeting the agreed objectives. The Project Manager will be responsible for ensuring that all institutional stakeholders are kept informed of the activities carried out under the project, and of project results. It is of particular importance to keep all relevant stakeholders informed, through the project management process and otherwise, in order to ensure optimum cooperation. The Project Manager will play a major role in all activities.

## **Regional Project Coordinator (RPC)** **(36 w-m/m, Local / International Experience)**

The Regional Project Manager (RPM) will be available for the whole contract period and should have a solid background in development of integrated action/implementation plans, integrated management approaches, environmental management, policy formulation, and coordinating/facilitating working groups, stakeholder relations including central and local governmental and non-governmental institutions and communities as well as private sector and maintaining integrity of the outputs.

The Regional Project Manager should have similar project experience (i.e. sustainable development; climate change; integrated policy development; integrated environmental management etc.) in Turkey and abroad with EC member state or accession country experience an asset. Proven negotiation skills at local and ministerial level are required.

### **Qualifications and Skills:**

The Regional Project Coordinator should have:

- Graduate level qualification in related field (social sciences, environmental science and/or engineering, economics, natural sciences and/ or planning (education and/or experience on sustainable development is an asset).
- Excellent communication and proven leadership skills as a team leader
- Excellent communication skills with local administrations and communities
- Excellent mediating and facilitating skills
- Full computer literacy and fluent in English

Professional experience:

- Minimum of 10 years professional experience
- Minimum 5 years proven experience in the management of international projects in similar fields
- Experience in administration, programme planning, monitoring and reporting

Specific experience:

The Regional Project Coordinator should have specific experience in at least four (4) of the following key areas:

- Minimum 5 years experience in programme execution with relation to implementation of sustainable development and/or climate change
- Awareness and understanding of climate agenda in Turkey
- Awareness and understanding of climate agenda in the international level
- Awareness and understanding of concept of adaptation
- Minimum of 5 years experience relating to coordinating integrated planning projects
- Minimum of 5 years experience in Project Cycle Management
- Minimum 3 years of experience in facilitating roundtables and platform discussions
- Minimum of 3 years experience of preparation of Terms of Reference for consultancy contracts and consultancy contract management
- Minimum of 3 years practical experience on working with local communities
- Minimum of 3 years practical experience on working with central and local decision-makers
- Good understanding of the Kyoto process, IPCC, WSSD, EU strategy on sustainable development and climate change
- Experience in global and international meetings on various climate change and sustainable development topics
- Experience with UN/UNDP system and procedures (i.e., procurement, contracting, communication and other financial issues).

### **Specific tasks and responsibilities:**

- Coordinating and managing the pilot projects in liaison with the Ministry of Environment and Forestry; the State Planning Organization; other governmental counterparts; partner UN organizations; partner academic institutions; Local Counterparts; Thematic Task Forces; PMC, and other stakeholders
- Managing the Regional Project Team and coordinating the Consultants in close collaboration with the Head Quarter
- Supervising the management of the pilot projects budget as well as the allocated budget for local/regional activities
- Checking that the pilot project outputs are in accordance with the Terms of References and the work plan
- Checking the translations of all reports and deliverables
- Ensure the preparation and delivering of all project management related reports and other deliverables at regional level as described in the Terms of Reference of the project
- Informing and advising the project counterparts through PMC on any issue likely to affect the financial resources or the scope of the activities foreseen
- Defining measurable indicators for subsequent programme monitoring and evaluation
- Ensuring the harmonization and coherence of central and regional/local activities and project outputs together with the PM.

The RPC shall ensure that the regional project team complies with all the procedural and contractual obligations of this contract. In this context, it is his/her responsibility to establish the internal management procedures required, particularly as regards procurement, tendering, contracting, reporting, editing and accounting requirements in compliance with UNDP procedures. The RPC will be responsible for establishing the accounting, budgeting and reporting procedures in accordance with UNDP procedures. S/he shall co-ordinate, supervise, manage, monitor and evaluate all aspects of the pilot projects' implementation including financial administration. The RPC will, if necessary, identify and recruit additional short-term experts and/or replacements for approved members of the regional project team. S/he will be responsible for submitting suitable CVs to the UNDP through PM for final approval before the appointment is confirmed and/or the new member of the regional project team carries out any work (or incurs any other costs) under the contract.

The RPC will have overall responsibility for the pilot projects, including primary contact with the stakeholders and the PMC concerning whether pilot project activities are meeting the agreed objectives. The Regional Project Manager will be responsible for ensuring that all institutional stakeholders are kept informed of the activities carried out under the pilot project, and of pilot project results. It is of particular importance to keep all relevant stakeholders informed, through the PMC process and otherwise, in order to ensure optimum cooperation. The Regional Project Coordinator will play a major role in all activities.

**Financing and Administration Officer (F&AO)**  
**(36 w-m/m, Local / International Experience)**

The Financing and Administration Officer is stationed in Ankara at the UNDP premises. He/she will be responsible for administering the project in terms of ensuring full compliance with applicable procurement and contracting rules, keeping the accounts and doing the financial reporting of all project transactions in coordination with the Program Manager and in specific for the compilation of all the relevant UNDP financial reports. The incumbent's duties include:

- Manage and monitoring of all contracting under the project
- Manage the request for proposals, evaluations and contracting under the pilot projects
- Keep the accounts and maintain adequate records for all expenditures incurred.
- Monitor compliance to the project budget.

- Establish financial monitoring/accounting and account reconciliation mechanisms to be in line with UNDP reporting requirements. Carry out financial monitoring and prepare financial reports to the UNDP. Maintain high standards of service delivery, including adherence to deadline, quick response time, accuracy and completeness of information, sensitivity to UNDP's needs in terms of format and content.
- Provide support and financial information to project management.
- Preparation of quarterly advance requests and financial reports and daily requests for direct payments, etc. with the assistance of the UNDP Program management.
- Obtain approval of UNDP Program Manager for direct payments to third parties,
- Maintain financial records in UNDP's accounts
- Facilitate internal and external audits and collaborate with the UNDP's financial auditors; follow-up on/implement auditors' recommendations.
- Liaise with the UNDP Procurement Analyst for certain purchases under the project in conformity with the applicable procurement rules
- Report directly to the UNDP program management on financial status on a day-to-day basis.
- Support and flag Program Manager on day-to-day budgetary situations and on the status of the utilisation of funds.

Qualifications: University degree in Finance/Business Administration and minimum 5 years specialized experience in the related field. The applicant should have a strong accounting and financial reporting background and should possess excellent computer skills including Word, Excel. Knowledge of UNDP financial, procurement, contracting rules, ERP and ATLAS is an asset. Fluent English with excellent drafting and communication skills is required.