

United Nations Development Programme

Country: TURKEY

Project Document

Project Title: Utilization of Renewable Energy Resources and increasing Energy Efficiency in Southeast Anatolia Region (PHASE 1)

UNDAF Outcome(s): **Outcome 1:** By 2010 strengthened individual and institutional capacity for both democratic and environmental governance at local and central levels
Outcome 2: By 2010, social and economic policies for poverty and disparity reduction implemented effectively and quality basic social services reaching vulnerable groups ensured.

Expected Country Programme Outputs:

Outcome 5: Competitiveness of Socially and Environmentally responsible private sector increased

Outcome 6: The conservation and sustainable use of natural resources is strengthened.

Expected Output(s): **Output 1.3.5** Increased productivity and competitiveness through improved energy efficiency and conservation

Output 2.1.6 Increased integration of SMEs in national and global value chains through entrepreneurship and business development services, clustering, use of appropriate technologies and vocational training

Implementing Partner: GAP Regional Development Administration

Responsible Parties: GAP RDA, UNDP

Brief Description

The overall objective, towards which the Project will contribute, is to improve the competitiveness of the Southeast Anatolia Region in a sustainable and socially equitable manner. This overall objective reflects the vision of the Competitiveness Agenda for Southeast Anatolia Region, and serves as a reference point for all initiatives (i.e. projects and programmes) to be implemented within the scope of the Agenda. In line with the said overall objective, the Project at hand, aims at improving the capacity for better utilization of renewable energy resources and increasing the energy efficiency in the Southeast Anatolia Region.

The first phase of the project will be implemented between April 2009 and March 2010. Implementation of the second phase of the project is contingent upon approval of the Government of the outputs (i.e. feasibility studies) of the first phase. This decision will be made latest by September 2009, so that the budget for the second phase can be reflected in the Government's investment programme.

Programme Period	2006-2010
Key Result Area (Strategic Plan):	
Advocacy and Action Plan for Poverty Reduction	
ATLAS Award ID	_____
Start date	April 2009
End date	March 2010
PAC Meeting Date	27.02.2009
Management Arrangement:	NEX

2009 AWP Budget:	1.528.685 TRL
2010 AWP Budget:	371.315TRL
Total resources required:	1.900.000 TRL
Total allocated resources	1.900.000 TRL
Government (GAP RDA)	1.900.000 TRL
GMS (3%)	55,340 TRL

Contributions from the GAP RDA will be converted into the USD by using the UN Operational Rate of Exchange effective during the month of deposit. The total project budget will be the sum of USD equivalent contributions received from GAP RDA in instalments.

Agreed by the Government of Turkey:

Agreed by GAP RDA

Agreed by UNDP

I. ANNUAL WORK PLAN

Year: 2009

EXPECTED OUTPUTS	PLANNED ACTIVITIES	TIMEFRAME				RESPONSIBLE PARTY	PLANNED BUDGET		
		Q1	Q2	Q3	Q4		Funding Source	Budget Description	Amount (TRL)
Output 1: Renewable energy (RE) and energy efficiency (EE) investment and business potentials of the Region assessed and promoted nationally and internationally Indicators: Report on investment and business potential on-line portal Target: Findings of the report is published by the 6 th month Online promotion web portal established by the 6 th Month	1. Establishment of the Assessment Team and Identification of the Methodology		X			GAP RDA, UNDP	Government	Consultancy Travel and Acc. Services	50.000 10.000 4.000
	2. Establishment of Working Relations with the Universities		X			GAP RDA, UNDP	Government	Consultancy Travel and Acc. Services	0 2.000 1.000
	3. Assessment of RE and EE Investment and Business Potential		X	X		GAP RDA, UNDP	Government	Consultancy Travel and Acc. Services	150.000 15.000 9.660
	4. Promotion, Publication and Dissemination of the Findings of the Report			X	X	GAP RDA, UNDP	Government	Consultancy Travel and Acc. Services	0 5.000 15.000
Output 2 Regional Renewable Energy (RE) and Energy Efficiency (EE) Strategy developed Indicator: Strategy Target: Strategy is developed by 10 th month of the project	1. Regional Needs Assessment		X	X		GAP RDA, UNDP	Government	Consultancy Travel and Acc. Services	50.000 8.000 5.000
	2. Development of Regional Renewable Energy and Energy Efficiency Strategy			X	X	GAP RDA, UNDP	Government	Consultancy Travel and Acc. Services	70.000 8.000 5.000
	3. Development of the Action Plan of Regional RE & EE Strategy				X	GAP RDA, UNDP	Government	Consultancy Travel and Acc. Services	30.000 8.000 5.000
	4. Implementation of the Action Plan of the Regional RE& EE Strategy				X	GAP RDA, UNDP	Government	Consultancy Travel and Acc. Services	25.000 3.000 2.500

EXPECTED OUTPUTS	PLANNED ACTIVITIES	TIMEFRAME				RESPONSIBLE PARTY	PLANNED BUDGET		
		Q1	Q2	Q3	Q4		Funding Source	Budget Description	Amount (TRL)
Output 3 Access to International Networks for RE& EE Research Indicator: Research Task Force, Action Plan Target: Research Task Force is established by the 4 th month Action Plan developed by the 10 th month	1.Establishment of a R&D Task Force(s) on RE & EE		X			GAP RDA, UNDP	Government	Consultancy Travel and Acc. Services	0 0 5.000
	2. Development of Regional RE and EE Research and Development Action Plan		X	X		GAP RDA, UNDP	Government	Consultancy Travel and Acc. Services	100.000 10.000 15.000
	3.Support to Networking Activities of the Task Force				X	GAP RDA, UNDP	Government	Consultancy Travel and Acc. Services	50.000 10.000 5.000
Output 4 Establishment of RE and Energy Efficiency Centre(s) Indicator: Model for Service Delivery, Business Plan (BP), Center Targets: Model for Service Delivery is developed by 6 th month BP developed within the first year, Center is established in 2010.	1.Development of Service Delivery Models			X	X	GAP RDA, UNDP	Government	Consultancy Travel and Acc. Services	25.000 2.500 5.000
	2.Technical Assistance for Development of Business Plans			X	X	GAP RDA, UNDP	Government	Consultancy Travel and Acc. Services	25.000 2.500 5.000
	3. Establishment (or improvement) of a Service Delivery Centre (as a role model)				X	GAP RDA, UNDP	Government	Consultancy Travel and Acc. Services	100.000 12.500 20.000
Output 5 Pilot (Demonstrative) Investments on RE Indicator: To be determined for 2 nd phase, if approved by the Government of Turkey Target: To be determined for 2 nd phase, if approved by the Government of Turkey	1.Pilot Investments (this activity will be conducted w/in the second phase, if the 2 nd phase is approved by the Government of Turkey)					GAP RDA, UNDP	Government	Consultancy Travel and Acc. Services	- - -
	2.Identification of Potential Investors (starts in Phase 1 as a preparatory activity)				X	GAP RDA, UNDP	Government	Consultancy Travel and Acc. Services	20.000 10.000 25.000
	3.Business Brokerage Activities and Pilot Investments (starts in Phase 1 as a preparatory activity)				X	GAP RDA, UNDP	Government	Consultancy Travel and Acc. Services	20.000 10.000 25.000

EXPECTED OUTPUTS	PLANNED ACTIVITIES	TIMEFRAME				RESPONSIBLE PARTY	PLANNED BUDGET		
		Q1	Q2	Q3	Q4		Funding Source	Budget Description	Amount (TRL)
Output 6 Institutional Capacity Building Indicator: number of training programmes, number of staff provided with specialized skills and knowledge on RE and EE Targets: At least two training programmes organized for GAP RDA Staff Members At least two staff members of GAP RDA are provided with specialized skills and knowledge on RE and EE.	1.Institutional Needs Assessment		X			GAP RDA, UNDP	Government	Consultancy Travel and Acc. Services	25.000 2.500 0
	2.Training Programmes			X	X	GAP RDA, UNDP	Government	Consultancy Travel and Acc. Services	25.000 2.500 3.000
	3.International and National Study Tours			X	X	GAP RDA, UNDP	Government	Consultancy Travel and Acc. Services	0 17.500 2.500
	4.Development of Supportive Tools				X	GAP RDA, UNDP		Consultancy Travel and Acc. Services	40.000 4.000 1.000
								Office Costs Equip. & Supplies Other Costs GMS Fee	37.500 40.000 300.000 44.525
TOTAL									1.528.685

The budget will be managed and reported by UNDP in USD through its corporate management system, ATLAS. Contributions from the GAP RDA will be converted into the USD by using the UN Operational Rate of Exchange effective during the month of deposit. The total project budget will be the sum of USD equivalent contributions received from GAP RDA in instalments.

Year: 2010

EXPECTED OUTPUTS	PLANNED ACTIVITIES	TIMEFRAME				RESPONSIBLE PARTY	PLANNED BUDGET		
		Q1	Q2	Q3	Q4		Funding Source	Budget Description	Amount (TRL)
Output 1: Renewable energy (RE) and energy efficiency (EE) investment and business potentials of the Region assessed and promoted nationally and internationally Indicators: Report on investment and business potential on-line portal Target: Findings of the report is published by the 6 th month Online promotion web portal established by the 6 th Month	1. Establishment of the Assessment Team and Identification of the Methodology					GAP RDA, UNDP	Government	Consultancy Travel and Acc. Services	0 0 0
	2. Establishment of Working Relations with the Universities					GAP RDA, UNDP	Government	Consultancy Travel and Acc. Services	0 0 0
	3. Assessment of RE and EE Investment and Business Potential					GAP RDA, UNDP	Government	Consultancy Travel and Acc. Services	0 0 0
	4. Promotion, Publication and Dissemination of the Findings of the Report	X				GAP RDA, UNDP	Government	Consultancy Travel and Acc. Services	0 3.000 5.000
Output 2 Regional Renewable Energy (RE) and Energy Efficiency (EE) Strategy developed Indicator: Strategy Target: Strategy is developed by 10 th month of the project	1.Regional Needs Assessment					GAP RDA, UNDP	Government	Consultancy Travel and Acc. Services	0 0 0
	2. Development of Regional Renewable Energy and Energy Efficiency Strategy					GAP RDA, UNDP	Government	Consultancy Travel and Acc. Services	0 0 0
	3. Development of the Action Plan of Regional RE & EE Strategy					GAP RDA, UNDP	Government	Consultancy Travel and Acc. Services	0 0 0
	4. Implementation of the Action Plan of the Regional RE& EE Strategy	X				GAP RDA, UNDP	Government	Consultancy Travel and Acc. Services	25.000 3.000 2.500

EXPECTED OUTPUTS	PLANNED ACTIVITIES	TIMEFRAME				RESPONSIBLE PARTY	PLANNED BUDGET		
		Q1	Q2	Q3	Q4		Funding Source	Budget Description	Amount (TRL)
Output 3 Access to International Networks for RE& EE Research Indicator: Research Task Force, Action Plan Target: Research Task Force is established by the 4 th month Action Plan developed by the 10 th month	1.Establishment of a R&D Task Force(s) on RE & EE					GAP RDA, UNDP	Government	Consultancy Travel and Acc. Services	0 0 0
	2. Development of Regional RE and EE Research and Development Action Plan					GAP RDA, UNDP	Government	Consultancy Travel and Acc. Services	0 0 0
	3.Support to Networking Activities of the Task Force	X				GAP RDA, UNDP	Government	Consultancy Travel and Acc. Services	50.000 10.000 5.000
Output 4 Establishment of RE and Energy Efficiency Centre(s) Indicator: Model for Service Delivery, Business Plan (BP), Center Targets: Model for Service Delivery is developed by 6 th month BP developed within the first year, Center is established in 2010.	1.Development of Service Delivery Models					GAP RDA, UNDP	Government	Consultancy Travel and Acc. Services	0 0 0
	2.Technical Assistance for Development of Business Plans					GAP RDA, UNDP	Government	Consultancy Travel and Acc. Services	0 0 0
	3. Establishment (or improvement) of a Service Delivery Centre (as a role model)	X				GAP RDA, UNDP	Government	Consultancy Travel and Acc. Services	100.000 12.500 20.000
Output 5 Pilot (Demonstrative) Investments on RE Indicator: To be determined for 2 nd phase, if approved by the Government of Turkey Target: To be determined for 2 nd phase, if approved by the Government of Turkey	1.Pilot Investments (this activity will be conducted w/in the second phase, if the 2 nd phase is approved by the Government of Turkey)					GAP RDA, UNDP	Government	Consultancy Travel and Acc. Services	- - -
	2.Identification of Potential Investors (starts in Phase 1 as a preparatory activity)	X				GAP RDA, UNDP	Government	Consultancy Travel and Acc. Services	5.000 5.000 5.000
	3.Business Brokerage Activities and Pilot Investments (starts in Phase 1 as a preparatory activity)	X				GAP RDA, UNDP	Government	Consultancy Travel and Acc. Services	5.000 5.000 5.000

EXPECTED OUTPUTS	PLANNED ACTIVITIES	TIMEFRAME				RESPONSIBLE PARTY	PLANNED BUDGET		
		Q1	Q2	Q3	Q4		Funding Source	Budget Description	Amount (TRL)
Output 6 Institutional Capacity Building Indicator: number of training programmes, number of staff provided with specialized skills and knowledge on RE and EE Targets: At least two training programmes organized for GAP RDA Staff Members At least two staff members of GAP RDA are provided with specialized skills and knowledge on RE and EE.	1.Institutional Needs Assessment					GAP RDA, UNDP	Government	Consultancy Travel and Acc. Services	0 0 0
	2.Training Programmes					GAP RDA, UNDP	Government	Consultancy Travel and Acc. Services	0 0 0
	3.International and National Study Tours	X				GAP RDA, UNDP	Government	Consultancy Travel and Acc. Services	0 17.500 2.500
	4.Development of Supportive Tools	X				GAP RDA, UNDP		Consultancy Travel and Acc. Services	10.000 1.000 1.000
								Office Costs Equip. & Supplies Other Costs GMS Fee	12,500 0 50,000 10.815
TOTAL									371.315

The budget will be managed and reported by UNDP in USD through its corporate management system, ATLAS. Contributions from the GAP RDA will be converted into the USD by using the UN Operational Rate of Exchange effective during the month of deposit. The total project budget will be the sum of USD equivalent contributions received from GAP RDA in instalments.

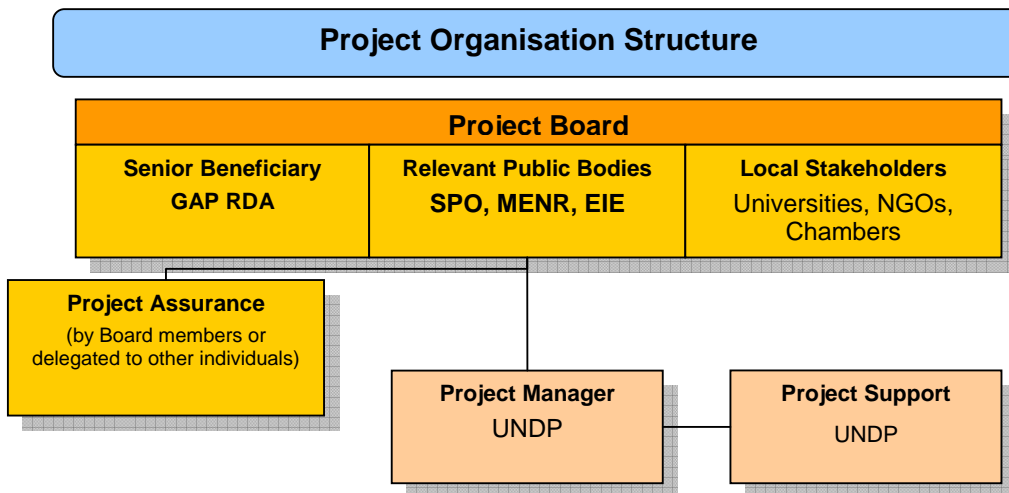
II. MANAGEMENT ARRANGEMENTS

The Project will be managed by the GAP Regional Development Administration with technical assistance of UNDP and in strong collaboration and cooperation with the institutions specified in GAP Action Plan. GAP RDA will identify from its own cadres a project “co-director” who will be main contact point of the co-director to be assigned by UNDP.

GAP RDA will establish and chair an advisory committee, which will meet every six months. The advisory committee will be composed of relevant public bodies (the MENR, the EIE and the SPO etc.) and civil society organizations (universities, chambers).

UNDP will establish a project management and coordination unit for the projects to be implemented within the scope of the Competitiveness Agenda. This unit will be based in Ankara, and will be composed of a director who will oversee implementation of the projects within the competitiveness agenda, project managers for specific projects, and support staff (finance, procurement, human resources).

All the personnel (short-term and long-term experts) to be mobilized within the scope of the Project will be identified jointly by the GAP RDA and UNDP as per the governing rules and regulations of UNDP.



The project will be subject to NEX Audit, cost of which will be charged against the project budget.

III. MONITORING FRAMEWORK AND EVALUATION

Within the annual cycle

- On a quarterly basis, a quality assessment shall record progress towards the completion of key results, based on quality criteria and methods captured in the Quality Management table below.
- An Issue Log shall be activated in Atlas and updated by the Project Manager to facilitate tracking and resolution of potential problems or requests for change.
- Based on the initial risk analysis submitted (see annex 1), a risk log shall be activated in Atlas and regularly updated by reviewing the external environment that may affect the project implementation.
- Based on the above information recorded in Atlas, a Project Progress Reports (PPR) shall be submitted by the Project Manager to the Project Board through Project Assurance, using the standard report format available in the Executive Snapshot.
- a project Lesson-learned log shall be activated and regularly updated to ensure on-going learning and adaptation within the organization, and to facilitate the preparation of the Lessons-learned Report at the end of the project
- a Monitoring Schedule Plan shall be activated in Atlas and updated to track key management actions/events

Annually

- **Annual Review Report.** An Annual Review Report shall be prepared by the Project Manager and shared with the Project Board and the Outcome Board. As minimum requirement, the Annual Review Report shall consist of the Atlas standard format for the QPR covering the whole year with updated information for each above element of the QPR as well as a summary of results achieved against pre-defined annual targets at the output level.
- **Annual Project Review.** Based on the above report, an annual project review shall be conducted during the fourth quarter of the year or soon after, to assess the performance of the project and appraise the Annual Work Plan (AWP) for the following year. In the last year, this review will be a final assessment. This review is driven by the Project Board and may involve other stakeholders as required. It shall focus on the extent to which progress is being made towards outputs, and that these remain aligned to appropriate outcomes.

Quarterly (narrative and financial) progress reports will be prepared and submitted by Technical Assistance Team and the Project Management Team to the GAP RDA. Being responsible for the implementation of the GAP Action Plan, Plan Monitoring Committee chaired by the GAP RDA will periodically monitor and evaluate the Project. In addition, regular meetings will be held with the participation of members of the Project Management and Coordination Unit and representatives of the GAP RDA to review the achieved progress.

The progress and performance indicators of the first phase of the Project with their corresponding indicators are listed below¹.

Expected Output 1: Investment and business opportunities and potential in renewable energy (RE) and energy efficiency (EE) assessed and promoted nationally and internationally:

- Report on Renewable Energy and Energy Efficiency Investment and Business Potential of Southeast Anatolia Region,
- The findings of the report published in Turkish and in English by the 6th month of the Project,
- An online portal promoting the RE & EE business and investment potentials of the Region established by the 6th month of the Project

Expected Output 2: Regional RE and Energy Efficiency (EE) Strategy developed,

- A regional RE and EE strategy Developed by 10th month of the Project,

Expected Output 3: The regional R&D capacity on RE and EE improved,

- A RE & EE research task force(s) established by the 4th Month of the Project,
- Regional RE Research and Development Action Plan developed by 10th month of the Project,

¹ The outputs for the second phase of the Project will be identified at the end of the first phase, and will be reflected in the revised project document.

Expected Output 4: A regional RE and EE Centre established (or the capacity of an existing centre improved), and linked to international R&D networks,

- A model for service delivery developed within the 6 months of the Project,
- Business plans development for the service centers within the first year of the Project,
- A centre established in 2010 (contingent upon the assessment to be carried out an already existing centre might be selected to invest in)

Expected Output 6: Institutional Capacity of the GAP RDA and its national and regional partners improved.

- At least 2 training programmes organized for the GAP RDA staff members, and their counterpart organizations
- At least 2 staff members of the GAP RDA are provided with specialized skills and knowledge on RE and EE.

IV. LEGAL CONTEXT

The project document shall be the instrument envisaged in the [Supplemental Provisions](#) to the Project Document, attached hereto.

Consistent with the above Supplemental Provisions, the responsibility for the safety and security of the executing agency and its personnel and property, and of UNDP's property in the executing agency's custody, rests with the executing agency.

The executing agency shall:

- a) put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;
- b) assume all risks and liabilities related to the executing agency's security, and the full implementation of the security plan.

UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of this agreement.

The executing agency agrees to undertake all reasonable efforts to ensure that none of the UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via <http://www.un.org/Docs/sc/committees/1267/1267ListEng.htm>. This provision must be included in all sub-contracts or sub-agreements entered into under this Project Document.

ANNEXES

Annex 1: Risks and Assumptions

Annex 2: Model Cost Sharing Agreement

Annex 3: Supplemental Provisions (Re. Section IV: Legal Context)

Annex 4: Detailed description of the activities

Annex I

Risks and Assumptions

The Project's intervention modality is based on a holistic regional economic development approach, which combines analytical studies with capacity building activities and demonstrative investments and pilot actions. The intervention modality assumes that high-level political commitment to the Competitiveness Agenda in general, and to utilization of RE resources and improving EE, in specific, continue as strong as today. Successful implementation of project activities requires willingness and cooperation of the regional, national and international stakeholders, including universities, civil society organizations, business community (i.e. investors).

The present Project has been designed in strong interaction with other sectors. The integration of renewable energy sector with organic food, tourism and organic agriculture would further accelerate the economic development of the Southeast Anatolia Region. In addition the Project is developed in such a manner that it can be implemented in other regions serving the potentials of renewable energy

The project activities will be conducted in close cooperation with the target groups and stakeholders. This will ensure that the strategies, action plans and programmes to be developed within the scope of the Project are sustained by the local and regional stakeholders once the funding to be provided within the Project ends. Experience from other regional development programmes indicates that integration to national and international markets and promotion of competitiveness requires women's integration in labor markets. Thus it is anticipated that enhancing renewable energy sector in the Region will create employment opportunities for men as well as for women.

Renewable energy, by definition, has an environment friendly and sustainable structure as production techniques. Therefore, the Project has been designed in such a manner that is responsive enough to the protection of the environment and the sustainability of the natural resources.

Annex 4: Detailed Description of Activities:

Background and Justification

Over the last two decades the use of renewable energy resources has increased remarkably all across the World. As per the statistical information provided by IEA (International Energy Agency), the generation of electricity from renewable energy resources increased from 2337 terawatt hours in 1990 to 3272 terawatt hours (TWh) in 2005, globally. In 2007, more than \$100 billion was invested in new renewable energy capacity, manufacturing plants, and research and development (Source: Renewable 2007 Global Status Report, by REN21).

Turkish economy grew remarkably in the wake of the economic crisis in 2001. The country registered impressive growth rates between 2002 and 2006. However, starting from the second half of 2007, macroeconomic performance has become less favorable. Although the economy grew between 2002 and 2007, this had almost no impact on unemployment. The unemployment rate, which was 10.3% in 2002, declined by 0.4 points to 9.9% in 2007.

	2001	2002	2003	2004	2005	2006	2007
GDP Growth (%)	-5.7	6.2	5.3	9.4	8.4	6.9	4.6
Inflation (year on year, %)	68.5	29.7	18.4	9.35	7.72	9.65	8.39
Unemployment Rate (%)	8.4	10.3	10.5	10.3	10.3	9.9	9.9

The inflation rates, which dropped from 68.5% in 2001 to 8.39% in 2007, started to increase in 2008. At the end of 2008 the year on year inflation rate again hit double digits, 10.1%.

“The Turkish economy expanded by 3% in the first nine months of 2008, compared with the same period of 2007. However, growth slowed sharply in the second and third quarters and all available data for the final three months of 2008 suggest that there was a sharp contraction in the fourth quarter”. (EIU)

In the aftermath of the economic crisis in 2001, Turkey’s foreign trade volume has also reached unprecedented levels. Trade volumes, which averaged only USD 68 billion in the second half of the 1990s, reached USD 280 billion in 2007. Turkey’s main trading partner continued to be the EU.

Despite the aforementioned remarkable performance between 2002 and 2006, and partly in 2007 and 2008, Turkish economy will certainly be affected by the global economic crisis, which has already started to demonstrate its impact. The unemployment rate was 12.3% in November 2008, and is expected to be higher in the first quarter of 2009.

Better utilization of renewable energy resources is critical for Turkey for a number of reasons. First, nearly 81% of the energy consumed in the country is imported; second, Turkey is a developing country, energy consumption/need of which is increasing steadily (7-8% per annum) both for the industry and households.

The surging energy prices, for instance, have been identified as one of the most important drivers of increasing inflation rates in 2008 (IMF). In addition to having an impact on the inflation rates, the energy prices have also had a negative impact on the competitiveness of the Turkish manufacturing industry, as well. Most of the sectoral associations (e.g. TUSIAD, Turkish Ceramic Federation, Association of Automotive Manufacturers etc.) indicate that the high cost of energy in Turkey is one of their competitive disadvantages.

The share of renewable energy in total primary energy supply decreased from ca 18 percent in 1990 to 9 percent in 2007 (Source: IEA). During the discussions for the 2009 National Budget, the Ministry of Energy and Natural Resources (MENR) announced that in 2007 the total primary energy supply in Turkey was 27,5 Mtoe (million tons of oil equivalent), whereas the total energy consumption was 107,6 Mtoe. The national demand for energy is estimated to reach 126 Mtoe in 2010 and 222 Mtoe in 2020.

Although there are varying estimations on the level of deployment versus potential of renewable energy resources, it is often agreed that “Turkey is extremely well endowed with renewable energy resources” The Project Appraisal Document (2004) of the Renewable Energy Project financed by the World Bank, potential generation from hydropower is estimated at about 126 TWh. The same document argues that Turkey is also rich in wind and geothermal resources. It is estimated that Turkey has the potential for up to 11,000 MW of wind capacity, capable of generating about 25 TWh of electricity per year. Proven geothermal capacity is only about 200 MW of electricity generating capacity and about 2,250 MW of thermal (heat generating) capacity. However, the potential for electricity generation from geothermal resources (including proven resources) is thought to be as much as 4500 MW. As far as the Southeast Anatolia Region is concerned, together with the proven capacity of 98MW, which is far from reflecting the geothermal energy potential of the Region, the overall potential for electricity generation from the geothermal resources is estimated to be 500 MW.

The legal framework for utilization of renewable energy resources and energy efficiency has been improved considerably. The relevant legislative pieces include Energy Efficiency Law (5627), the Law on Utilization of Renewable Energy Resources for the Electricity Production (5346), Electricity Market Law (4628), and

circulars and directives on bio-fuels and bio-diesels. The Energy Efficiency Law lays out the procedures and principles to be implemented to increase the energy efficiency throughout energy production, transmission, distribution and consumption, and encourages taking advantage of the renewable energy sources.

The Turkish Government is cooperating with international organizations to improve the renewable energy sector in Turkey. For instance, the Renewable Energy Project (2004 – 2010), financed by the World Bank aims at increasing privately owned and operated, distributed power generation from renewable sources, without the need for government guarantees, and within the market-based framework of the new Turkish Electricity Market Law. The European Commission has also financed certain projects in this particular area.

The Ministry of Energy and Natural Resources has launched an Energy Efficiency Project (known as ENVER) to promote energy efficiency and utilization of renewable energy resources. The Ministry has also published a national action plan to improve energy efficiency.

Ministry of Energy and Natural Resources (MENR) is responsible, inter alia, for developing and implementing renewable energy policies in Turkey, whereas the Electrical Power Resources Survey and Development Administration (EIE), an associated administration of the MENR, is mainly responsible for making research and survey on energy resources.

Southeast Anatolia Region has a significant renewable energy potential particularly in hydro energy, solar energy and biomass fields. However, the potential of the Region have, thus far, not been used efficiently. The utilization of renewable energy resources is vitally important for the region's development and competitiveness.

Justification

Southeast Anatolia Region is one of the most socially and economically distressed regions in Turkey. As per the socio-economic development index, issued by the State Planning Organization in 2003, the Region is the second least developed region in Turkey.

As the following table demonstrates, with the exception of Gaziantep, all the provinces of the Region have registered very low levels of socio-economic development values.

	Overall		Industry		Health		Education	
	Index Value	Rank	Index Value	Rank	Index Value	Rank	Index Value	Rank
Adiyaman	-0.77647	65	-0.58467	60	-0.86615	66	-0.60197	66
Batman	-0.90456	70	-0.60612	62	-1.42375	77	-1.46186	72
Diyarbakir	-0.66993	63	-0.52514	53	-0.68696	61	-1.50337	73
Gaziantep	0.46175	20	1.06361	7	-0.00510	37	-0.25099	53
Kilis	-0.41175	54	-0.63076	64	-0.65089	60	-0.15697	49
Mardin	-0.98944	72	-0.71096	68	-1.11637	71	-1.58331	74
Siirt	-1.00644	73	-0.72349	69	-0.99157	69	-1.60835	75
Sanliurfa	-0.83158	68	-0.54881	58	-0.76661	63	-2.10995	78
Sirnak	-1.13979	78	-0.81602	80	-1.34016	76	-2.32063	81

As the following table demonstrates the labor force participation rates in the Southeast Anatolia Region are considerably lower than the other regions in Turkey. As per the results of the TUIK's Household Labor Force Survey (2006) women's labor force participation rate in Southeast Anatolia Region is 6.5%.

Labor force status by Classification of Statistical Regional Units, 2006 Thousand person, 15+ age, %									
	Total			Female			Male		
	L	U	E	L	U	E	L	U	E
Total	48.0	9.9	43.2	24.9	10.3	22.3	71.5	9.7	64.5
Istanbul	48.0	11.2	42.6	21.8	13.9	18.7	73.2	10.5	65.5
West Marmara	53.0	7.1	49.2	31.1	9.2	28.3	74.9	6.2	70.3

Labor force status by Classification of Statistical Regional Units, 2006 Thousand person, 15+ age, %									
	Total			Female			Male		
	L	U	E	L	U	E	L	U	E
Aegean	48.8	8.8	44.5	26.6	9.4	24.1	71.2	8.6	65.1
East Marmara	49.6	9.0	45.2	26.1	11.2	23.1	72.7	8.2	66.7
West Anatolia	45.2	11.6	40.0	20.7	17.0	17.2	70.1	9.9	63.1
Mediterranean	50.1	12.0	44.1	27.5	12.8	24.0	73.2	11.7	64.7
Central Anatolia	43.1	10.9	38.4	19.0	12.4	16.7	68.6	10.5	61.5
West Black Sea	54.2	6.1	50.9	36.5	5.2	34.6	73.4	6.7	68.5
East Black Sea	62.3	5.7	58.7	50.1	5.0	47.6	74.8	6.2	70.1
North East Anatolia	49.8	5.3	47.2	28.0	2.4	27.3	73.4	6.5	68.6
Central East Anatolia	42.8	11.3	38.0	20.4	8.4	18.7	67.8	12.3	59.4
South East Anatolia	34.5	14.0	29.6	6.5	8.4	5.9	63.9	14.6	54.5

L: Labor force participation rate
U: Unemployment rate
E: Employment rate
 Source: TurkStat, Household Labor Force Survey

The population of the Southeast Anatolia Region is circa 10% of the national population, whereas the regional GDP has traditionally constituted 6% to 7% of the national GDP. As such the GDP/capita in the Region is also lower than most other regions in Turkey.

A considerable portion of the economic output of the Region is derived from agriculture and trade. Although the region is endowed with favorable factor conditions (land, natural resources etc.), most of the manufacturing activities in the region are concentrated in the lower value-added segments of the manufacturing value chains. The only exception is, again, Gaziantep, where industrial manufacturing is on par with or better than most other provinces in Turkey.

Deployment of renewable energy resources and energy efficiency are both vitally important for Turkey. The Government of Turkey has launched ambitious and visionary programmes in these particular fields. The Southeast Anatolia Region (SAR) is endowed with renewable energy resources, foremost of which are hydro, solar and biomass, and to a certain extent wind. Although a regional assessment has not been carried out yet, it is anticipated that energy efficiency is yet another area, in which the SAR should improve.

The Competitiveness Agenda, which has been developed by UNDP in strong collaboration and cooperation with the GAP RDA within the scope of the EU-funded GAP-GIDEM (Entrepreneurship Support Centers) Project, aims at turning the Southeast Anatolia Region into the "Cradle of Sustainable Civilizations" by integrating the Region to national and international markets with a unique value proposition, which foresees deployment of renewable energy resources to their full potential. The recently-published GAP Action Plan makes specific references to the said Competitiveness Agenda.

In order to operationalise the core strategy of the Competitiveness Agenda for Southeast Anatolia Region, a considerable progress has to be achieved. Initially, the investment and business opportunities in the renewable energy (RE) and energy efficiency (EE) sectors need to be analyzed by conducting region-wide due diligence, upon which sector-specific strategies and action plans will be developed.

These analyses should be carried out concurrent to studies on identification of technologies that need to be brought into the Region. The research and development capacity of the Region (i.e. the universities therein) needs to be improved by establishing and maintaining working relations with international research and business networks. In an effort to lay the ground for such comprehensive efforts, UNDP and GAP Regional Development Administration have already embarked upon a small-scale project (i.e. Short-term Action Plan for the Competitiveness Agenda).

Investment Programme for 2009 and the GAP Action Plan

The GAP Action Plan, which has been announced by the Government in 2008, makes specific reference (ED.6.2) to the deployment of the renewable energy resources in the SAR. During the preparatory studies an indicative amount of TRY10 million has been allocated for this specific action.

During the elaboration of the investment programme for 2009, TRY1.9 million has been allocated for this action with an indication that the allocated funds will be disbursed in 2009.

Thus this Project has two phases. The first phase has a total budget of TRY1.9 million. The Project is planned to be started in April 2009 and completed in March 2010. The budget of the second phase is anticipated to be TRY 8.1 million. This amount is yet not reflected in the investment programme. Depending on the outcomes of the first phase the Government of Turkey will decide whether this amount (or a higher or lower amount) will be reflected in the investment programme for 2010.

Development and Utilization of Renewable Energy Resources Project is composed of the following activity groups:

- Action 1: Assessment of the RE and EE Investment and Business Potentials of the SAR
- Action 2: Development of Regional Renewable Energy and Energy Efficiency Strategy
- Action 3: Access to International Networks for Renewable Energy Research
- Action 4: Establishment of a RE and Energy Efficiency Centre(s)
- Action 5: Pilot (demonstrative) Investments on RE – (Phase 2)
- Action 6: Institutional Capacity Building

It should be noted that, the activities to be carried out during the first year of operations will mainly focus on the development of the analytical framework upon which further planning and implementation processes will be developed in the following years. (please see Section 6. Project Implementation Plan for details)

A1: Assessment of the RE and EE Investment and Business Potentials of the Region

EIE has developed HEPA (Turkish Hydraulic Energy Resources Potential Atlas), REPA (Turkish Wind Energy Potential Atlas) and GEPA (Turkish Solar Energy Potential Atlas) for Turkey. A similar assessment is planned to be made by EIE on "biomass energy potential" in 2009 (source: Strategic Plan of the EIE, Project No: 1.8.2).

This Action will capitalize on the studies of the EIE, and will assess investment and business opportunities to utilize the RE resources, and to deploy energy efficient technologies in the SAR. For instance:

- The GEPA demonstrates the solar energy potential; however an area, which is endowed with solar energy (sun radiation), might be under protection or preservation (i.e. SIT areas etc.), and thus would not be suitable for investment.
- The experience in Turkey has demonstrated that licensing energy generation investments creates a local supply chain (i.e. manufacturers of parts and components of turbines, testing devices etc.). The same is likely to happen in the SAR, especially when the solar energy generation licenses are granted.

The assessments will be carried out in close cooperation with MENR and EIE to ensure that findings of the assessments are in line with the national policies, plans and programmes.

A1.1: Establishment of the Assessment Team and Identification of the Methodology

UNDP, in close cooperation with GAP RDA, will identify an assessment team, which will ideally be composed of international and national experts. This team will initially conduct desk research and preliminary field studies to develop the assessment methodology. The assessment method is expected to be based on international best practices. The team will develop a methodology, which will be presented at a workshop, to which all national stakeholders (i.e. MENR, EIE, SPO etc.) will be invited. During this workshop the participants will be expected to provide feedback to the methodology to be developed. The methodology will be refined and/or improved as per the feedback to be received.

UNDP and GAP RDA will ensure that the assessment team is composed of such members that the findings of the assessment will gain international recognition and credibility easily. This is particularly important in order to attract foreign investment (including investment in research and development) at later stages of the Project.

A1.2: Establishment of Working Relations with the Universities

UNDP and GAP RDA facilitate establishment of working relations with the national and regional universities, so that the national and regional capacity to conduct such assessment be improved. Additionally, involvement of regional universities to the assessment process will (a) improve the cost efficiency of the studies, and (b) increase commitment of the local academic circles to the RE agenda of the Region.

Indicatively, the regional universities that are anticipated to be involved in the assessment include Harran University (Sanliurfa), Gaziantep University (Gaziantep) and Dicle University (Diyarbakir). At the national scale universities, with which working relations are expected to be established include, but not exclusive to, Istanbul Technical University, Aegean University, Hacettepe University.

A1.3: Assessment of the RE and EE Investment and Business Potential

Upon finalization of the methodology the assessment team will embark on analysis. This activity is expected to be completed within 6 months upon mobilization of the assessment team.

At the minimum, the assessment is expected to demonstrate the followings:

- Feasible investment locations (by using GIS techniques, and cross-referencing with the databanks of concerned ministries and administrations),
- Feasible investment and business areas (i.e. manufacturing of parts and components, pipes, testing devices, services etc.)
- Feasibility of deployment of energy efficiency technologies (i.e. cost-benefit analysis).
- Economic and Social Impact Assessment (forecast).

The format of the feasibility studies will follow SPO's standard format for investment proposals.

A1.4: Promotion, Publication and Dissemination of the Findings of the Report

A project website, which will be designed in such a structure that it can be turned into a multi-lingual portal, will be established both to promote the Project and its outputs and to communicate with national and international audience.

The findings of the assessment will be consolidated into a report, which will be used for a number of purposes including development of further interventions (i.e. programmes and projects), attracting investment etc. The report will be published in Turkish (original) and in English..

A2: Development of the Regional Renewable Energy and Energy Efficiency Strategy

The assessments and feasibility studies to be conducted within Action 1 (summarized above) will allow for development of a regional strategy for exploitation of regional renewable energy (RE) resources and promotion of energy efficiency (EE).

The strategy will cover all sectors including industry, agriculture (i.e. irrigation systems), transport, municipal services, households etc., and is planned to be based on the following pillars:

- Promotion of RE investment and business potential of the SAR, nationally and internationally,
- Promotion of EE investment and business potential of the Region, regionally, nationally and internationally,
- Improvement of the Regional R&D capacity on RE and EE,
- Establishment of regional service delivery mechanisms on RE and EE,
- Making demonstrative investments, showcasing successful models and dissemination,
- Development of pro-poor energy solutions to assist the poor in accessing and using affordable, clean and safe energy.

This strategy will also demonstrate how national strategies on RE and EE might be operationalised by regional strategies, indications of which are also visible, for instance, in the ENVER strategy document.

A2.1: Regional Needs Assessment

Parallel to the due diligence to be conducted within Action 1, a region-wide needs assessment will be conducted in order to identify the strategic priorities of the Region in terms of (a) development of the local manufacturing capacity for deployment of RE resources and technologies, and (b) deployment of energy efficient technologies. This needs assessment will be comprehensive in the sense that it will encompass industry, households, public buildings and services etc.

The needs assessment will be carried out to address several issues: (a) competitiveness of the local industry and service sector, (b) municipal services and operations, (c) household consumption (with special emphasis on the poorer segments of the society) etc. During course of the assessment surveys will be conducted.

At this point the project team will also cooperate with regional energy distribution companies and municipalities to collect and analyze data.

A2.2: Development of Regional Renewable Energy and Energy Efficiency Strategy

The Regional RE and EE strategy will be developed in a participatory manner. UNDP and GAP RDA will facilitate establishment of working groups, composed of members from the MENR, the EIE, the SPO and

other governmental agencies, and business community, civil society organizations, local administrations and universities.

The strategy development process will include a review of the legislative framework as well. The regional strategy will be in line with the national strategies and action plans on renewable energy and energy efficiency. To that end, representatives of relevant public bodies, such as the MENR, the EIE, the SPO etc, will be invited to take part in the workshops and other studies within this particular action. The participants will be expected to provide feedback on the strategy. The strategy will be refined and/or improved as per the feedback.

The strategy will cast last light on the followings:

- Promotion of RE & EE investment and business potential of the SAR, nationally and internationally,
- Improvement of the Regional R&D capacity on RE & EE,
- Establishment of regional service delivery mechanisms on RE & EE,
- Making demonstrative investments, showcasing successful models and dissemination,
- Development of pro-poor energy solutions.

A2.3: Development of the Action Plan of Regional RE & EE Strategy

Within the scope of Action 2, finally an action plan will be developed in order to ensure that the RE & EE Strategy is operationalised. This action plan will demonstrate the key action lines, responsible parties, stakeholders, and indicative budgets for the action lines.

In addition to the national (public) funds, the action plan will target mobilization of private and international funds (such as European Commission's Instrument for Pre-accession Assistance, Framework Programmes etc.)

A2.4: Implementation of the Action Plan of the Regional RE & EE Strategy

Some (less costly) activities of the Action Plan of the Regional RE & EE Strategy will be implemented within Phase 1. However most of the activities will be implemented in Phase 2.

A3: Access to International Networks for RE and EE Research

In order to capitalize on the SAR's RE resources, and to deploy EE technologies therein, Region's universities should possess the R&D capacity to develop and/or transfer technologies that can be deployed effectively and efficiently in the region. These types of research and development (R&D) studies can be conducted more efficiently, if the universities in the Region can access to international networks of RE and EE.

Accessing international networks for RE and EE research involves participation to international events, establishment of bilateral and multilateral working relations with global leaders in this particular field, hosting international missions and conducting international study tours.

A3.1: Establishment of a Regional R&D Task Force(s) on RE and EE

UNDP and GAP RDA will facilitate establishment of Regional R&D task force(s) on RE and EE. These task forces will be composed of representatives from the local universities (Dicle, Gaziantep and Harran etc.), and from relevant public organizations (i.e. ministries, undersecretariats, administrations etc.) and NGOs.

A3.2: Development of Regional RE and EE Research and Development Action Plan

These task forces, with the support of the international and national short-term experts, to be mobilized within the scope of the Project, will develop an Action Plan. This Action Plan will initially target identification of international networks, to which the task forces need to access, and partner organizations, with which the task forces should establish and maintain working relations.

UNDP and GAP RDA will support development of a governance system for the task forces.

A3.3: Support to Networking Activities of the Task Force(s)

After development of the Action Plan, the Project will support networking activities of the task forces. This support will include organization of international missions to the Region, organization of similar study tours to the potential partner organizations, provision of technical (and later financial) support for joint research projects etc.

A4: Establishment of a RE and EE Centre(s)

In order to ensure sustained impact of the Project, regional self-sustainable service delivery mechanisms should be established. Similar mechanisms (i.e. service centers, designed to deliver services to private and

public sector) can be found in other countries. For instance, the Energy Efficient Technologies Programme of the US Department of Energy leverages on the Energy Efficiency Centers that are established at the universities. These centers provide services to local businesses and identify energy efficient technologies that can be deployed by the local businesses (mostly SMEs).

The Project will address this issue, initially during elaboration of the Regional RE and EE Strategy. In anticipation of the budgetary constraints, which will prohibit establishment of such centers all across the Region, the Project will provide technical assistance for establishment of only one centre or for improvement of skills and capabilities of an existing centre within a local university. Dependent on the resources to be made available for the second phase of the Project, a centre may be physically established as well.

For instance, the EIE plans to accredit local agencies to deliver training programmes on EE. This centre can be instrumental in delivering such services in the SAR. Such centers can also deliver services to the investors by conducting site-specific tests (i.e. solar radiation etc.), developing model investment projects etc.

A4.1. Development of Service Delivery Models for the RE and EE Center(s)

The international practices demonstrate that there are different service delivery models that can be deployed in accordance with the local context, in which such centers operate. In some regions, such centers operate under the auspices of the public bodies (i.e. regional development agencies, governorates etc) with full public funding, in some other regions, such centers are attached to applied R&D centers established at the local universities, providing services on a cost recovery basis and/or at subsidized rates, and in some regions such centers operate within the framework of public-private partnerships.

Accordingly, within the scope of the Project alternate models will be scrutinized by analyzing the international best practices and local dynamics. The Project does not intend to impose a single model. The objective is to elaborate feasible models, which can be adopted by the local stakeholders and which will not create redundancies.

A4.2. Technical Assistance for Development of Business Plans

Upon identification of alternate models, and securing commitment of local stakeholders, the Project will provide technical assistance to local stakeholders. This technical assistance will be basically in the form of development of business plans, which will demonstrate how such centers can be established (investment plan), managed (management and governance structure), deliver services (marketing and service delivery) and operated (human resources management, financial management, and cash flow projections).

The business plans will include feasibility studies, format of which will follow SPO's standard format for investment proposals.

A4.3. Establishment of a Service Delivery Centre (as a role model)

As indicated above, dependant on the resources to be made available to the second phase of the Project a centre can be established physically.

A5: Pilot (demonstrative) Investments

Implementation of Action 5 is contingent upon availability of funding for the second phase of the Project.

The aim of the activities to be carried out within the context of the fifth action is to make pilot investments, which will be of demonstrative nature and serve as role models for other investments in the Region. The notion of pilot investments is also planned to be operationalised by attracting international and national investors.

A5.1: Pilot (demonstrative) Investments

The pilot (demonstrative) investments will be made by using the resources that will be made available to the second phase of the Project, and will be determined in accordance with the findings and recommendations of the studies to be conducted with Action 1 and Action 2 (defined above).

UNDP, GAP RDA, MENR, EIE and SPO will develop a list of criteria to be used during the selection of the pilot investments. These criteria will include, inter alia, the followings:

- Value-for-money: The cost versus expected economic and social benefits of the pilot investments,
- Local commitment: Presence of local commitment to sustain the pilot investment upon completion of the funding to be made within the scope of the Project,
- Replicable Models: Priority will be given to the pilot investments that can be replicated in the Region,
- Social externalities: Impact on the poorer segments of the society.

A5.2: Identification of Potential Investors

A5.2 and A5.3 will target attracting private sector investments to the Region. There are three channels, through which potential investors can be identified:

- Investment Support and Promotion Agency of Turkey (ISPAT): ISPAT promotes investment opportunities in Turkey, and support potential international investors. The Project will establish working relations with ISPAT.
- National and international fairs and exhibitions: The investment opportunities in the SAR can also be promoted through participation to international and national fairs and exhibitions.
- International networks: The investment opportunities can also be promoted through UNDP's existing networks, and the working relations to be established with international research and business networks during the implementation of the Project.

Accordingly, international, national and regional investors in the field of renewable energy will be identified with the anticipation of exploitation of the opportunities that Action 1 will identify. GAP RDA and UNDP will be actively involved in negotiation process for the identification of international investors through meetings, interviews and workshops. GAP RDA and UNDP will also leverage on the experience and know-how of the MENR and EIE during the fulfillment of these activities.

A5.3: Business Brokerage Activities and Pilot Investments

Upon identification of the potential national and international investors, pilot investments will be implemented. Afterwards impact assessments of each pilot investment will be conducted, which further lead to the extension of the efficient investments be implemented in much larger scales.

A6: Institutional Capacity Building

The aim of the activities to be carried out within the scope of this action is to improve institutional capacities of the GAP RDA and the local and central institutions (i.e. Project Partners) with which the GAP RDA will be in strong collaboration and cooperation during the implementation of the Project. In this sense, the improved institutional capacities of the GAP RDA and the Project Partners will contribute to (a) the efficiency of the Project activities and the sustainability of the Project and (b) to the replication the Project's intervention modality as a role model in other regions of Turkey serving renewable energy potential. This action will include organization of workshops, training programmes, and national and international study tours, as well as development of supportive tools (manuals, toolkits etc.) that would be referred by the GAP RDA and the Project Partners as the source documentation regarding their prospective initiatives in the field of renewable energy.

The MENR and the EIE have both been involved in similar activities in the fields of RE and EE, as such the experience and know-how of the MENR and the EIE will be utilized to full extent, through consultations with these organizations.

A6.1: Institutional Needs Assessment

The institutional needs assessments will be carried out both at the GAP RDA and at the local stakeholders (Governorships, Municipalities², Chambers, Universities and other related NGOs). The needs assessments will be demonstrate the skills and capabilities that the central and local project partners need to develop in order to improve the effectiveness of the Project activities and to contribute to the sustainability of the Project. The Institutional Needs Assessment Report to be developed within the scope of this activity will include concrete recommendations on the followings:

- Topics and overall contents of the customized training programmes,
- Profiles of participants,
- Duration of training programmes,
- Expected benefits

The needs assessments will also provide recommendations regarding the international and national study tours to be conducted within the scope of the Project (please see A6.3 for details).

A6.2: Training Programmes

Based on the Institutional Needs Assessment Report to be developed within the scope of A6.1, it is anticipated that at least 5 training programmes be implemented during the lifespan of the Project. The topics and overall contents of the training programmes will be identified upon completion of the needs assessment. Some of the training programmes may also be organized in the form of general awareness-raising

² Improving institutional capabilities of the municipalities, for instance, is critical at least for two reasons: (a) the municipalities are critical players for utilization of biomass energy resources, and (b) improvement of energy efficiency of municipal services (street lights etc.).

programmes, which will complement and/or supplement the ongoing efforts of the MENR and the EIE. Selected training programmes will be recorded and be designed as interactive DVDs, which can be shared with a larger audience.

A6.3: International and National Study Tours

The Project's intervention modality is innovative and has been designed not only to achieve short-term results (i.e. development of Regional Renewable Energy and Energy Efficiency Strategy etc.), but also to establish local mechanisms that will ensure sustained impact of the Project. Accordingly, during the course of its execution the Project will need to benefit from international and national best practices.

Incorporation of the experiences of the international and national best practices into the Project will be predominantly achieved by mobilization of international and local experts and by transferring UNDP's (and thereby relevant UN agencies) know-how. The Project Team will facilitate transfer of UNDP's know-how into the Project. However well-designed and implemented international and national study tours have also proven to be an effective tool of transferring international and national know-how and experience and building local capacities.

The Project Team will develop a strategy for the organization of international and national study tours. This strategy will demonstrate the objectives of the study tours, best practices to be visited etc. The strategy to be developed will also demonstrate which objectives will be sought in national and international study tours. Ideally, an international study will be conducted where the objectives of the tours cannot be met by conducting a national study tour.

The international and national networking activities, which will be executed within the scope of access to international networks for renewable energy research (please see A3) are not considered as international or national study tours. Study tours are considered as a tool for improving national and local capacities, the networking activities might also contribute to improvement of national and local capacities, however their main aim will be to achieve the objectives of accessing to international networks for renewable energy.

The international study and national study tours are planned to be organized at later stages of the Project (Phase 1).

A6.4: Development of Supportive Tools

The needs assessment will identify not only the missing skills but also the capabilities. It is envisaged that the capability-related needs can be addressed through development of tools (i.e. manuals, toolkits, systems etc.), which can be used both by the GAP RDA and the Project Partners both at the central and local levels with a view to replicate the Project's intervention modality in other regions and to sustain the impact of the Project.