Mediterranean and National Strategies for Sustainable Development

Priority Field of Action 2: Energy and Climate Change

Energy Efficiency and Renewable Energy

Syria - National study's summary

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1. Challenges and energy sustainability:

The following table illustrate energy demand in 2005 and some related indicators:

Indicator	Value	Unit
Population	18.5	Million Inhabitants
Total Energy Demand	20.96	Million TOE
Average energy demand growth rate 1990- 2005	5.4	%
Oil Derivatives	14.202	Million TOE
Natural Gas	5.4	Million TOE
Hydropower	0.758	Million TOE
Biomass	0.6	Million TOE
Electrical power produced	34.935	Billion KWh
GDP	30	Billion Euro
Energy Intensity	907	KgOE/1000$
Per Capita Share of All Energy resources	1133	KgOE/year
Per Capita Share of Electrical Energy	1886	KWh/year
The proportion of the contribution of electric energy in energy balance	39.4	%

Energy Dependency

	1995	2000	2005	2010	2015	2020
Domestic supply (MTOE)	34.67	33.57	28.26	26.7	24.9	23.7
Domestic demand (MTOE)	12.34	15.75	21.07	26.47	34.59	45.21
Energy dependency rate %	**- 181**	**- 113**	**- 34**	**- 8**	**28**	**47.5**

Regarding the Environmental challenges connected with energy issues the total CO2 emissions caused by energy sector is about 18.528 million tones which be as 45% of the total CO2 emissions in Syria, there are many procedure done to decrease GHG emissions including regulations, frameworks, obligations.

Recognizing the importance of Kyoto Protocol in GHG Reduction, Syria certified the protocol in the mid of 2005.

The Sustainable Development Criteria for CDM projects in Syria include the following:

A. Conformity to political and legal dispositions

B. Contribution to:

1- Technology Autonomy.

2- Sustainable use of Natural Resources

3- Social Criteria (Improve Quality of Life and Equity, Alleviate Poverty).

4- Economic criteria (Provide Financial returns to Local Entities, Transfer of New Technology).

5- Environmental Criteria (Mitigation of Global Climate Change, Reduce GHG, Conserve Local Resources).

Regarding the degree of the sustainability and the awareness about energy issues and climate change from decision-makers and citizens in the country, it became very high in the governmental level (decision-makers) the last few years, which lead to create programmes, frameworks, regulations, and legislations concerning GHG effects and energy demand as mentioned in the study.

The public awareness is growing in sequence with improving the related programmes.

2. Indicators:

Regarding the share of renewable energy observed in the country, The only renewable energies that affect the energy share in Syria are just the Hydropower and biomass, the following table illustrates the share of renewable energy in the total energy produced in Syria:

Energy (million TOE)	2000	2001	2002	2003	2004	2005
Total	16.19	16.54	17.76	18.41	20.08	20.85
Hydro	0.63	0.53	0.55	0.62	0.93	0.76
Biomass	0.6	0.6	0.6	0.6	0.6	0.6
Ratio of RE %	7.6	6.8	6.5	6.6	7.6	6.5

The planned is to raise the percentage of RE of the total energy production to 7.5% in 2020 through activating solar and wind energies in all sectors.

Regarding Energy efficiency observed in the country the "Energy efficiency law" which will be issuance within 2007 will regulate the procedures of EE in all sectors

The following table illustrates the estimated EE potential saving of the total energy demand in 2020

Activity	Ratio
Energy Efficient Building	2,5%
Efficient Home Appliances	2%
Electrical Grid Efficiency Improvement	2%
Energy Auditing	2%
Total	16 %

3. The currently established policies in terms of RE and RUE:

Working on national strategies, legislations, incentives, tools and actions regarding RE&RUE in Syria is in progress, for instance three new legislations will be issuance within 2007 " Energy Efficiency Law", "Energy efficiency Home appliances Labels and Standards", "Building Thermal Insulation code" which include many types of incentives, this will lead to a good level of organized implementation of the RE&RUE projects and technologies transfer.

The main objectives are decreasing the fossil fuel demand and climate changes issues.

4. Difficulties, possible solutions, needed reforms:

As in many MENA countries there are such a difficulties related to RE&RUE implementation, but many of these difficulties are related to the socio-economic situation as energy prices and subsidies, lack of public awareness, regulatory framework, and financial support.

Nowadays many improving steps carried out towards RE&RUE widespread in Syria, overcoming many obstacles, but also facing some difficult situations that need to be solved at the national high level.

5. Success story:

Many years ago the directions was to widespread solar water heaters in all sectors in Syria, this year many actions have been made to generalize using this technology.

Many meetings were held with all related organizations, associations and local manufacturers to improve solar water heating technology in the fields of researches, productions, and awareness.

All that actions resulted the following:

1. Execution many pilot projects in all sectors accompany with programmes to widespread the technology.
2. Develop the accredit standards regarding solar water heating systems.
3. Adopt installation solar water heating systems in all governmental buildings.