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### **Economic and Social Commission for Western Asia**

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## REPORT OF THE EXECUTIVE SECRETARY ON THE ACTIVITIES OF THE COMMISSION

# FOLLOW-UP TO IMPLEMENTATION OF THE RESOLUTIONS ADOPTED BY THE COMMISSION AT ITS TWENTY-FIRST SESSION

Rationalization and increased efficiency of energy and the use of renewable sources of energy: resolution 234 (XXI)

#### **Summary**

1. The Economic and Social Commission for Western Asia (ESCWA) adopted resolution 234 (XXI) dated 1 May 2001 concerning the rationalization and increased efficiency of energy and the use of renewable sources of energy. In part, the resolution reads as follows:

Urges member countries to include in their energy-related programmes the policies and measures necessary in order to increase the efficiency of and rationalize energy use and promote the use of renewable sources of energy. This should be achieved through the devising of institutional frameworks for their implementation;

Requests member countries to take the measures necessary to support the performance of activities related to the Renewable Energy Promotion Mechanism, with a view to strengthening regional cooperation in that field; to this end, the endeavours of national focal points for the Regional Mechanism should be supported.

- 2. Pursuant to that resolution, several member countries took a number of measures with respect to energy-related policies and projects, with the aim of increasing the efficiency of the production and use of energy and developing the use of renewable energy. For its part, ESCWA carried out many activities aimed at providing member countries with the necessary technical information, studying the possibilities and technical options available and evaluating their practical priorities. It also provided consultancy services to member countries and held several expert group meetings in the aforementioned fields.
- 3. Set forth below are the measures taken by certain member countries pursuant to resolution 234 (XXI) and the basic focuses for ESCWA involvement in their implementation:
- (a) Eight ESCWA member countries announced that they had taken steps to increase the efficiency of and rationalize energy use and promote the use of renewable sources of energy. Such steps included field studies, training programmes, research and development projects, the rationalization of energy use and the use of renewable energy;

- (b) The Commission supported the endeavours of member countries by preparing sectoral studies in respect of the rationalization of energy use, the use of renewable energy and energy and sustainable development. It also held three expert group meetings on the use of energy for the purposes of sustainable development, capacity-building, regional integration in this respect, increased awareness and participation in formulating policies and systems for sustainable energy;
- (c) The Commission also cooperated with member countries in activating the Renewable Energy Promotion Mechanism, by implementing a training course programme for building national capacities in respect of wind power and developing the domain of the Mechanism and promoting its performance, with a view to expanding the range of its activities to include activities related to making the energy sector sustainable and other priority activities.

### A. THE MEASURES TAKEN BY MEMBER COUNTRIES AND THE CONTRIBUTION OF ESCWA THERETO

#### 1. Jordan

4. The Ministry of Energy and Mineral Resources is applying a programme aimed at rationalizing energy use in the industry and transport sectors. Work has been completed on a special field study, and its outcomes were analysed with effective cooperation from ESCWA through its technical cooperation programmes. In cooperation with the specialized Jordanian bodies, ESCWA also took part in organizing and implementing a number of training programmes in this field.

#### 2. Bahrain

5. The Ministry of Electricity and Water has begun to study the feasibility of employing renewable energy. As part of its technical cooperation programme, ESCWA prepared a feasibility study on the use of solar power in the industrial and commercial sectors. In cooperation with the specialized bodies in Bahrain, ESCWA is following up the measures for implementation of the study outcomes.

#### 3. The Syrian Arab Republic

6. The Ministry of Electricity has taken several measures, the most important being that (a) it has amended the price of electricity, in order to bring it further into line with market prices, thereby contributing to the rationalization of use; (b) it has prepared a strategy and general plan for developing the uses of renewable energy, in discussions in which ESCWA was involved and to which it contributed suggestions as to its development; (c) since 2001, on the basis of the outcome of relevant ESCWA studies, it has worked to implement a national programme for the rationalization of energy use and limitation of greenhouse gas emissions. The Commission has been involved in most of the related training and awareness-raising activities.

#### 4. Oatar

7. The Qatar Electricity and Water Corporation has undertaken a study on the options for optimizing the use of electricity in various sectors and ways of adjusting the price of electricity in preparation for the privatization of that sector. Qatar requested technical assistance from ESCWA in preparing a comprehensive training programme for those involved in the rationalization of energy use at a variety of levels. The Commission has completed preparations for the programme and approval is being awaited for the related executive measures. Pursuant to a request from the Ministry of Municipal Affairs and Agriculture, ESCWA has also prepared a proposal for a research programme on solar power for agricultural and water-related purposes.

#### 5. Lebanon

8. The Ministry of Energy and Water is implementing a comprehensive programme aimed at making the energy sector in Lebanon sustainable. It intends to formulate the policies necessary in order to rationalize energy use and raise public awareness in this regard. Experts from ESCWA participate in the courses and seminars that are held as part of that programme. The Commission has also trained a number of Lebanese specialists in the field of wind power.

#### 6. Egypt

9. The specialized bodies are continuing their programmes to develop the use of renewable energy, particularly with respect to the generation of electricity. The compound capacity of wind farms has reached 75 megawatts (MW) and is expected to reach 145 MW by the end of 2003, as the programmes for the rationalization of energy use expand in the domestic and industrial sectors. In cooperation with the specialized bodies in Egypt, ESCWA is involved in making available to the representatives of member countries training opportunities in the aforementioned fields.

#### 7. Saudi Arabia

10. King Abdulaziz City for Science and Technology undertakes many research and development programmes in respect of renewable energy and, in particular, wind power. A number of Saudi Arabian experts have been trained as part of the ESCWA programme for the building of capacities in the field of wind power.

#### 8. Yemen

11. The Ministry of Electricity and Water assigns great importance to the development of the use of renewable energy in remote areas. On the basis of that orientation, ESCWA has trained a number of Yemeni engineers and technicians in that field and prepared a complementary project for the alleviation of poverty in rural areas through developing the use of renewable energy. The project includes the implementation of experimental models in Yemeni villages and programmes to raise public awareness and build national capacities.

#### B. ACTIVITIES UNDERTAKEN BY ESCWA

## 1. Activities of the programme of work for the biennium 2001-2002 in the field of energy

- 12. The programme of work for the biennium 2001-2002 includes a number of activities that have been undertaken by ESCWA in support of the endeavours of member countries during that period in respect of the rationalization of energy use and renewable energy. Such activities have been distributed between the various parts of the energy sector.
- (a) In the field of rationalizing energy use
- 13. The Commission has carried out a number of sectoral studies with a view to evaluating the feasibility of rationalizing energy use and identifying practical priorities and returns for the countries of the region. Those studies have covered the buildings, industry, transport and electricity generation sectors and evaluated the techniques and systems available for the rationalization of use. The studies also evaluated the possibilities for limiting greenhouse gas emissions in the transport and electricity generation sectors and included case studies on the situation in many of the countries of the region.

- (b) In the field of renewable energy
- 14. The Commission has prepared a regional report on renewable energy which includes a complementary evaluation of the feasibility of using renewable sources and the practical position in each country of the region. It also identifies areas for regional cooperation between member countries in that regard. The Commission has, in addition, issued a three-volume study entitled *Potential and prospects for renewable energy electricity generation*. The three volumes deal, respectively, with (a) wind and biomass systems; (b) solar thermal systems; and (c) solar cells systems.
- (c) In the field of energy and sustainable development
- 15. In preparation for the World Summit on Sustainable Development, that was held in Johannesburg from 26 August to 4 September 2002, ESCWA prepared 10 briefing papers on energy and sustainable development in the countries of the region, covering the following issues: (a) the characteristics of the energy sector in the ESCWA region; (b) energy and Agenda 21: objectives and the progress made in achieving them; (c) the challenges and opportunities faced by the power sector in contributing to sustainable development; (d) the activities undertaken by ESCWA in the field of energy and sustainable development; (e) development of the use of new and renewable sources of energy; (f) the rationalization of energy use in the buildings sector; (g) the rationalization of energy use in the industrial sector; (h) the limitation of greenhouse gas emissions in the transport sector; (i) the limitation of greenhouse gas emissions in the electricity sector; and (j) sustainable development and mainstreaming the gender perspective in energy issues. Those papers were sent to a large number of persons involved in sustainable development issues in Arab countries as part of the publication prepared by ESCWA entitled ESCWA papers in preparation for the World Summit on Sustainable Development, which included 18 papers on energy, water and the environment.

#### C. EXPERT GROUP MEETINGS

- 16. The Commission organized three expert group meetings.
- (a) Expert Group Meeting on Energy for Sustainable Development in ESCWA Member States: the Efficient Use of Energy and Greenhouse Gas Abatement
- 17. This meeting was held in Beirut from 8 to 11 October 2001, in cooperation with the Cairo regional office of the United Nations Educational, Scientific and Cultural Organization. It was attended by experts from ESCWA member countries and from United Nations and regional organizations. Papers and discussions focused on the importance of developing strategies and policies for sustainable energy and the technical options available to improve the efficiency of energy use and in order to reduce greenhouse gas emissions by the transport and electricity sectors. The recommendations made by the Meeting affirmed the importance of action to achieve sustainability standards in the electricity sector in the region, at production and consumption level, and as appropriate to the economic and social conditions prevailing in each country. The recommendations called for action in the following basic areas: (a) the provision and guarantee of energy supplies; (b) the diversification of sources of energy and development of the use of renewable sources; (c) the change in patterns of consumption and increased efficiency of use; (d) the use of awareness-raising and training programmes; (e) the formulation of the necessary policies and legislation; and (f) regional and international cooperation.
- (b) Expert Group Meeting on Capacity-Building and Regional Integration for Developing a Sustainable Energy Sector in ESCWA member countries
- 18. This Meeting was held in Beirut from 15 to 17 October 2002, and was attended by experts from all the ESCWA member countries and from United Nations and regional organizations. The experts exchanged information and expertise on policies and programmes aimed at building national capacities in areas related to achieving the sustainability of the energy sector and in fields that were necessary in order to strengthen regional integration, particularly with respect to natural gas projects and electricity links, and successful experiments and useful studies in the aforementioned fields. The recommendations of the Meeting focused on the fact that capacity-building must be a basic component of strategies that aim to make the energy sector

sustainable and find practical solutions which are appropriate for local and regional conditions. Participants also stressed that it was important for the regional organizations and, in particular, ESCWA and the Arab development banks, to direct their endeavours towards issues relating to sustainable development and to support them by regional and international cooperation programmes.

- (c) Expert Group Meeting on Promoting Awareness and Participation in Developing Sustainable Energy Policies and Systems
- 19. This Meeting was held in Abu Dhabi, United Arab Emirates, from 15 to 17 October 2002, at the same time as a conference and exhibition on the environment and energy. It was jointly organized by ESCWA, the Environmental Research and Wildlife Development Agency and the Abu Dhabi international exhibition organizers. It was attended by more than 150 experts and officials from the countries of the region and the relevant international organizations and institutions. The Meeting concentrated on three main points, namely, (a) increasing participation in the development of sustainable energy policies; (b) participation in developing sustainable energy techniques and systems; and (c) raising public awareness with respect to sustainable energy. The main focus of the recommendations was on the importance of increasing the participation of all the groups concerned with the field of energy and, in particular, the private sector and non-governmental organizations, in determining policies and application priorities for the sector. The Commission took part in the exhibition that was held at the same time as the Meeting. The materials exhibited, which highlighted ESCWA activities and programmes in the field of sustainable energy, were very favourably received. Commission experts also participated in reviewing and amending the draft of the Abu Dhabi Declaration, which was issued by Arab ministers of environment and energy after the meeting they held on 3 February 2003 at the same time as the conference.

#### D. ACTIVATION OF THE RENEWABLE ENERGY PROMOTION MECHANISM

- 20. The Commission cooperated with member countries in activating the Renewable Energy Promotion Mechanism and remains in constant contact with national focal points, with a view to providing any services they may request. Set forth below are the activities that have been carried out in this regard:
- (a) The programme for the building of national capacities in the field of wind power
- 21. The Commission prepared this programme in cooperation with the New and Renewable Energy Authority in Egypt. It includes seven subprogrammes that begin by collecting and evaluating sources and conclude with experiences and evaluations of operation. As part of this programme, two training courses were held, the first in September 2001 and the second in July 2002. The first was attended by 10 persons from five member countries, while the second was attended by 15 persons from six member countries. It is worth noting that those who attended from Jordan and the Syrian Arab Republic have been given responsibility for taking part in the follow-up to wind power development projects in those countries.
- (b) Developing the domain of the Mechanism and promoting its performance
- 22. Pursuant to the Johannesburg Declaration and Plan of Implementation, which accord particular importance to energy, as one of the most essential elements in achieving sustainable development, the ESCWA Committee on Energy approved the secretariat's proposal to amend the name and domain of the Mechanism, with a view to expanding the range of its activities to include those related to making the energy sector sustainable, promoting renewable sources of energy, rationalizing the use of clean fuels, and strengthening power supplies in order to alleviate poverty. The Mechanism will therefore be the first of its type, in that it will support regional cooperation in the fields of energy and sustainable development.
- 23. In the light of the foregoing, the ESCWA secretariat commends the endeavours that have been exerted by member countries with a view to implementing resolution 234 (XXI) and reaffirms its intention to continue to support those efforts to make the energy sector sustainable, given its central importance in implementing economic and social development programmes in the region.

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