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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**

*The establishment of an ESCWA consultative committee on scientific and technological
development and technological innovation: resolution 225 (XXI)*

Summary

1. Given the priority accorded to technology-related issues and the need to address such issues in order to deal with the challenges and demands of globalization, the Economic and Social Commission for Western Asia (ESCWA) adopted resolution 225 (XXI) dated 11 May 2001 concerning the establishment of an ESCWA consultative committee on scientific and technological development and technological innovation. In part, the resolution reads as follows:

“[ESCWA]

Decides to establish a consultative committee on scientific and technological development and technological innovation, the main responsibility of which will be to sponsor endeavours aimed at scientific and technological development and technological innovation. The committee shall be composed of distinguished experts in the field...”.

2. When ESCWA restructured its programmes, it included technology management as one of its four priorities.

3. The Commission was careful to ensure that all the parties concerned in the development process should be involved in this Committee. Those parties include public, public-private and private institutions and civil society institutions, in keeping with United Nations orientations in that respect. Pursuant to the above-mentioned resolution, ESCWA has undertaken the following activities:

(a) The first meeting of the Committee has been held; particular attention was paid to two issues, namely:

- (i) The use of new technology to alleviate poverty and unemployment: ESCWA is implementing a regional programme that aims to harness new technologies in order to generate new employment opportunities and reduce poverty;
- (ii) The formulation of a new and comprehensive vision of the development of science and technology in the Arab countries. This will be discussed at a meeting that ESCWA is

intending to hold in 2003, of which the aim will be to put in place the foundations to ensure that policies, strategies and initiatives relating to the building of local science and technology-related capacities in Arab countries will be completed or reviewed, and that a regional initiative aimed at developing such capacities will be launched;

(b) The Commission has been active in providing member countries with technical consultancy services, with a view to assisting them in the formulation of national science and technology policies, technological innovation, information and communications technologies (ICTs) and in updating the relevant institutional infrastructure. As of writing, ESCWA has provided consultancy services to eight member countries and additional consultancy in respect of electronic government (e-government) and electronic culture (e-culture);

(c) The Commission has endeavoured to coordinate regional action by formulating a regional vision and coordination mechanisms for the implementation of science and technology policies;

(d) In order to lay the ground for the updating of institutional infrastructure for the building of technology capacities, ESCWA has taken the following action:

- (i) Established a regional network of technology parks and incubators, with the aim of exchanging expertise and implementing training programmes;
- (ii) Established a network that includes research and development (R&D) institutions and prepared guidelines for R&D centres in order to facilitate their interaction;

(e) The Commission has included certain activities in the programme of work and priorities for the biennium 2002-2003;

(f) The Commission has undertaken media activities in order to raise awareness of the importance of developing science and technology capacities;

(g) The Commission has taken action aimed at the implementation of resolutions adopted by international conferences on science and technology;

(h) In cooperation with the League of Arab States, the Commission is making every effort to implement the Sustainable Development Initiative in the Arab Region.

A. THE CONVENING OF THE FIRST MEETING OF THE ESCWA CONSULTATIVE COMMITTEE
ON SCIENTIFIC AND TECHNOLOGICAL DEVELOPMENT AND
TECHNOLOGICAL INNOVATION AND ENDEAVOURS
TO IMPLEMENT ITS RECOMMENDATIONS

4. The first meeting of the Consultative Committee on Scientific and Technological Development and Technological Innovation was held on the final day of the Forum on Technology, Employment and Poverty Alleviation in the ESCWA Member Countries that was held from 16 to 18 July 2002. The eminent scientists and specialists in a number of branches of technology who took part in the meeting included Mr. Ahmad Zewail, winner of the Nobel prize for Chemistry in 1999, and other Arab scientists working in the field of science and technology in Arab and other countries. The sessions of the final day, namely, 18 July 2002, were devoted to the consideration of Consultative Committee affairs and its recommendations.¹ The most eminent officials working in the field of science and technology in member countries took part in those deliberations, in addition to a number of United Nations officials and agency representatives and, in particular, representatives of the International Labour Organization.

¹ E/ESCWA/TECH/2002/1.

5. The focus of the meeting was on the following issues:

- (a) The use of new technology to alleviate poverty and unemployment;
- (b) The formulation of a new and comprehensive vision of the development of science and technology in the Arab countries.

6. The Commission is endeavouring to implement the outcomes of the first meeting of the Consultative Committee through a number of activities, of which the most important characteristics are set forth in the paragraphs below.

1. The use of technology for employment creation and poverty reduction

7. The Commission is implementing a regional programme that it designed and submitted to meeting participants, by whom it was approved. The activities that ESCWA is undertaking in this regard are part of its endeavours towards realizing the objectives of the United Nations Millennium Declaration with respect, in particular, to the eradication of poverty. That regional programme of work is being implemented in cooperation with the International Labour Office and serves as the umbrella for a number of initiatives and national and regional programmes that aim to harness new technology in order to create new employment opportunities and reduce poverty.

(a) *The goals of the regional work programme*

8. The programme aims to promote the following:

(a) Policies that lead to the creation of opportunities for reasonable employment and the reduction of poverty, including:

- (i) National policies and executive strategies for technological innovation;
- (ii) Policies for sectoral development and the improvement of national economic performance;

(b) Pilot projects aimed at creating employment opportunities and reducing poverty by creating a new institutional infrastructure and introducing technology parks and incubators, with a view to disseminating new technology and thereby assisting in the creation of new employment opportunities and reduction of poverty;

(c) Specific initiatives for disseminating the new technologies and related skills, with the emphasis on using small and medium enterprises for that purpose and in order to create new employment opportunities and reduce poverty.

(b) *Measures that have been taken in order to implement the regional work programme*

9. In 2003, ESCWA hopes to convene a small expert group meeting, to be attended by a number of national institutions and regional organizations, of which the aim would be to discuss mechanisms and activities for building the relevant national capacities. In preparation for that meeting, ESCWA is conducting several studies and surveys in order to uncover best practices in the countries of the region.

10. For that purpose, the terms of reference have been laid down for the production of studies dealing with the following issues:

(a) The creation of mobile units for raising awareness and providing training in selected ICT applications;

(b) The establishment of community information technology (IT) centres;

(c) The use of open source software for designing useful applications for the improvement of the performance of small private sector institutions and creation of new employment opportunities;

(d) The use of modern IT applications in eradicating illiteracy.

11. Work has begun on such studies, and their outcomes will be employed in designing the pilot projects referred to above for host institutions in member countries that will contribute to applying the study results, thereby acquiring increased expertise in the use of ICT in the appurtenances of social and economic development.

12. The successful creation of new employment opportunities will reduce unemployment and poverty, provided the new technologies are exploited in order to improve the performance of educational systems. In cooperation with the United Nations Educational, Scientific and Cultural Organization office in Beirut, ESCWA is implementing the programme of work in addition to its regular programme of work. That programme aims to discover practical methods whereby ICT may be used to improve the quality of pre-university education programmes in a number of spheres, with the focus on the basic sciences, mathematics and languages.

(c) *Obtaining the necessary financial resources for the regional programme of work*

13. As part of the regional programme of work adopted by the Consultative Committee, ESCWA has prepared a project document which aims to set forth a group of activities that use technology in order to alleviate unemployment and poverty. That document has been submitted to a number of parties, including the Arab Fund for Economic and Social Development, the United Nations Development Fund and the Islamic Development Bank. On the basis of that document, ESCWA has succeeded in obtaining for the project 75,000 Kuwaiti dinars, the equivalent of US\$ 250,000, from the first party and US\$ 360,000 from the second. Contacts are continuing with the third party with a view to obtaining its support for the initiative.

2. *The formulation of a new and comprehensive vision of the development of science and technology in the Arab countries*

14. The formulation of this new vision and the related activities and plans constitute the focus of concern for a meeting that ESCWA is planning to convene, which will be attended by the most prominent Arabs working in the field of science and technology in Arab and other countries. The aim of the meeting will be to consider implementation mechanisms and priorities.

15. The Commission hopes to hold the meeting in cooperation with a number of regional and international organizations, thereby assuring the participation of experts and senior officials from all the Arab countries. The aim of the meeting is to develop a new vision and to involve all the Arab countries, rather than member countries only, in determining its nature. The meeting will also consider the establishment of the proper bases on which to finalize or reconsider policies, strategies and initiatives relating to the building of science and technology capacities of Arab countries.

16. It is hoped that the meeting will be held in the autumn of 2003 and that its outcomes will provide member countries with additional material to assist them in presenting their orientations and plans to the World Summit on the Information Society that is to be held in December 2003.

17. By means of this meeting, ESCWA hopes to launch a regional initiative aimed at developing science and technology capacities on the basis of the new vision; related national policies and strategies; a body of legislation; and the new institutional framework. The initiative will also aim to activate endeavours to create centres of excellence and technology parks and incubators in fields with priority for Arab countries.

B. THE PROVISION OF TECHNICAL CONSULTANCY

18. The Commission continues to provide member countries with technical consultancy in regard to the formulation of national policies relating to science and technology and technological innovation and in the formulation of a regional vision and relevant mechanisms at regional level for the implementation of such policies. The consultancy provided focuses on the formulation of national policies relating to ICT, the creation of a new institutional infrastructure and, in particular, technology parks and incubators and centres of excellence. Furthermore, a number of universities in member countries have been assisted in making linkages between higher education, the outcomes of R&D and the national economy.

19. Consultancy services in this field have been provided by ESCWA to Iraq, Kuwait, Lebanon, Oman, Saudi Arabia, the Syrian Arab Republic, the United Arab Emirates and Yemen.

1. *The provision of technical cooperation in the formulation of national science and technology policies*

(a) *Saudi Arabia*: a policy document was formulated with the cooperation of ESCWA and adopted by the Council of Ministers in August 2002. Strategies and mechanisms for the implementation of the policy are currently being developed. This is the first policy on science and technology to be adopted by a council of ministers at Arab level, and the first policy for which strategies and implementation mechanisms have been sought. More than 400 Saudi experts, professors and researchers are involved in the project, as a result of the insistence of ESCWA on such procedure;

(b) *Yemen*: ESCWA experts put forward for inclusion in the Second Five-Year Plan proposals aimed at employing science and technology for development, and those proposals were used in the implementation plans;

(c) *Oman*: ESCWA put forward proposals for a national R&D policy that were adopted in the Sixth Five-Year Development Plan. Financing was also made available for many of the projects suggested by ESCWA in this field.

20. The Commission is currently following up projects for the design of national science and technology policies in Kuwait, Lebanon and the Syrian Arab Republic.

2. *The provision of technical cooperation in the formulation of ICT policies*

(a) *Saudi Arabia*: in cooperation with the Saudi Computer Society and the Ministry of Planning – policy being formulated;

(b) *Yemen*: in cooperation with the National Information Centre belonging to the Presidency of the Republic – policy being prepared;

(c) *Oman*: in cooperation with the Ministry of National Economy – the policy has been formulated and is being implemented;

(d) *Lebanon*: in cooperation with the Office of the Minister of State for Administrative Reform – policy still being considered.

21. In countries' progress towards the information society, ESCWA is also providing support in the form of the following projects:

(a) In the Ministry of Planning, Saudi Arabia; the Ministry of Planning, Iraq; and the Council of Ministers in the Syrian Arab Republic, assistance is being given in the field of e-government;

(b) In the Museum of Islamic Arts, Ministry of Information, in Kuwait; the Arab Cultural Group in Beirut; and the Arab Organization for Translation, Lebanon, assistance is being given in the field of e-culture and Arab Internet content.

C. THE FORMULATION OF A REGIONAL VISION AND RELATED MECHANISMS
FOR IMPLEMENTATION AT REGIONAL LEVEL

22. With the focus on regional cooperation, work in this regard included the following:

The establishment of a network, to include technology incubators and parks, centres of excellence and other mechanisms for employing technology for the purposes of development. Action involves the following:

- (i) The establishment of one technology incubator at King Abdulaziz City for Science and Technology, Riyadh; a second within the King Abdulaziz and His Companions Foundation for the Gifted and a third as part of the Riyadh Chamber of Commerce and Industry;
- (ii) The establishment, in cooperation with the United Nations Development Programme and the Supreme Council for the Transfer of Technology, of two technology incubators in Baghdad, at universities, in the industry sector. Those two incubators represent part of a ministerial project to establish 20 such incubators over the coming 10 years;
- (iii) The establishment of a technology cluster in Muscat, in cooperation with the Ministry of Commerce and Industry, the Ministry of National Economy and Sultan Qaboos University;
- (iv) A project for the establishment of a technology incubator in the Syrian Arab Republic, with the cooperation of the Syrian Computer Society;
- (v) A project for the establishment, with the Kuwait Institute for Scientific Research, of a technology incubator in Kuwait;
- (vi) A project for the establishment, with the National Council for Scientific Research, of a technology incubator in Lebanon.

23. The Commission is assisting a number of universities in member countries in making linkages between higher education, the outcomes of R&D and the national economy. Those universities are the United Arab Emirates University, on behalf of the Gulf Cooperation Council, the University of Balamand, Lebanon, and Sultan Qaboos University in Oman.

D. PREPARING FOR THE CREATION OF A NEW INSTITUTIONAL INFRASTRUCTURE
FOR THE BUILDING OF TECHNOLOGY-RELATED CAPACITIES

1. *The establishment of a regional network of technology parks and incubators*

24. The Commission has undertaken the establishment of a regional network of technology parks and incubators, of which the aim is to exchange expertise in the design and management of parks and incubators and carry out training programmes. A Web page has been assigned to the network on the ESCWA Internet site.

25. Available on that site² are a number of studies conducted by ESCWA concerning a new institutional infrastructure for the building of science and technology-related capacities in member countries. The site makes it possible to exchange information on the members of the network and the activities that they are

² <http://www.escwa.org.lb/ntpi/member/main.html>.

carrying out. It also constitutes a means whereby those who are involved with technology parks and incubators at national level may communicate and cooperate with their counterparts in member countries with respect, in particular, to training activities relating to the establishment and management of such institutional infrastructure.

2. The establishment of a network of R&D institutions

26. The Commission is endeavouring to establish a network of R&D institutions that is intended to facilitate their interaction and cooperation in regard to establishing priorities in national development plans and regional cooperation.

27. For that purpose, a guide to R&D institutions and related support bodies has been updated and is available on a compact disc and in tabular form.

28. The guide will be made available on the ESCWA Internet site. Furthermore, ESCWA has prepared a project document on the establishment of an Internet portal devoted to R&D activities in fields that are a priority for member countries. That document includes a preliminary design for the portal. A detailed design is currently being prepared, together with a prototype of the portal. It is expected that the portal will become available for use at R&D institutions in member countries at some time in 2003.

29. The portal provides a valuable opportunity for Arab researchers, scientists and technology experts to interact and cooperate with their counterparts in the other countries of the world. It is hoped that the endeavours exerted in this regard and the investment in ICTs will contribute to the establishment of centres of excellence for researchers and scientists working in fields relating to the priorities of member countries.

E. THE INCLUSION OF CERTAIN ACTIVITIES IN THE PROGRAMME OF WORK AND PRIORITIES FOR THE BIENNIUM 2002-2003

30. The programme of work and priorities for the biennium 2002-2003 was formulated with a view to ensuring that its activities responded to the aforementioned recommendations of the Consultative Committee. The programme includes a number of activities that contribute to the technological capacity-building of member countries by prioritizing certain vital fields, including ICT and water-related technologies. The programme also includes activities that make it possible to monitor the progress made in building science and technology-related capacities. The most outstanding example is a study currently being carried out that aims to review and develop the indicators used in monitoring and following up the growth of science and technology-related capacities and technological innovation activities in member countries.

F. MEDIA-RELATED ACTIVITIES

31. Using the capacities of the local television and satellite network, ESCWA organized a media campaign aimed at raising awareness of the importance of building science and technology-related capacities in member countries in order to achieve the objectives of sustainable development.

G. FOLLOW-UP TO THE RESOLUTIONS AND RECOMMENDATIONS OF THE REGIONAL AND INTERNATIONAL CONFERENCES ON BUILDING SCIENCE AND TECHNOLOGY-RELATED CAPACITIES AND TECHNOLOGICAL INNOVATION IN WHICH MEMBER COUNTRIES PARTICIPATED AND COORDINATION OF THE ENDEAVOURS RELATING TO IMPLEMENTATION OF SUCH RESOLUTIONS AND RECOMMENDATIONS

32. In preparation for the Second Meeting of the Preparatory Committee for the World Summit that was held in Geneva from 17 to 28 February 2003, the Western Asia Preparatory Conference for the World Summit on the Information Society was convened by ESCWA in Beirut from 4 to 6 February 2003. That Conference may be accounted one of the many steps that are expected to lead to the adoption of policies and overcoming of obstacles and the launching of initiatives for the development of the information society in the

region. Ideas as to regional priorities were considered at the Conference, together with general frameworks for regional initiatives aimed at building capacities for the construction of the information society and for breaking down the barriers thereto. Document E/ESCWA/22/4(Part IV) entitled *Follow-up Activities at Regional Level to United Nations International Conferences* describes the role of ESCWA in that regard.

H. THE SUSTAINABLE DEVELOPMENT INITIATIVE IN THE ARAB REGION

33. In cooperation with the League of Arab States, ESCWA will implement the Sustainable Development Initiative in the Arab Region that was submitted to the World Summit on Sustainable Development, held in Johannesburg from 26 August to 4 September 2002. That Initiative includes an article specifically relating to scientific research and the transfer of technology in the priority areas of Arab development plans, with emphasis on R&D and technology transfer for the protection of the environment.
