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**Economic and Social Commission for Western Asia (ESCWA)**

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3-14 May 2010

**REPORT**  
**OF THE REGIONAL IMPLEMENTATION MEETING ON THE FIVE**  
**AREAS PRESENTED TO THE UNITED NATIONS COMMISSION ON**  
**SUSTAINABLE DEVELOPMENT ON ITS EIGHTEENTH SESSION**

## CONTENTS

<i>Chapter</i>	<i>Paragraphs</i>	<i>Page</i>
<b>I. INTRODUCTION.....</b>	1-5	1
<b>II. TRANSPORT FOR SUSTAINABLE DEVELOPMENT IN THE ARAB REGION .....</b>	6-19	2
A. Current status of the transport sector in the Arab region.....	6-9	
B. Progress achieved.....	10-17	2
C. Challenges and priority areas for action.....	18-19	4
<b>III. CHEMICALS .....</b>	20-26	5
A. Current status of chemicals management in the Arab region.....	20-21	5
B. Progress achieved.....	22-23	5
C. Challenges and priority work areas.....	24-26	6
<b>IV. WASTE MANAGEMENT IN THE ARAB REGION .....</b>	27-42	8
A. Current status of waste management in the Arab region.....	29-37	8
B. Progress achieved.....	38-39	9
C. Challenges and priority areas for action.....	40-42	10
<b>V. PROGRESS ACHIEVED IN THE FIELD OF MINING.....</b>	43-47	11
A. Current status of the field of mining in the Arab region .....	43	12
B. Progress achieved.....	44-45	12
C. Challenges and priority work areas.....	46-47	12
<b>VI. 10-YEAR FRAMEWORK FOR SUSTAINABLE CONSUMPTION AND PRODUCTION.....</b>	48-70	13
A. Current status .....	48-57	13
B. Progress achieved.....	58-62	15
C. 10-Year Framework for Sustainable Consumption and Production.....	63-70	16

**DRAFT REGIONAL IMPLEMENTATION REPORT FOR THE ARAB REGION TO BE  
PRESENTED TO THE UNITED NATIONS COMMISSION ON SUSTAINABLE  
DEVELOPMENT ON ITS EIGHTEENTH SESSION  
(3-14 MAY 2010, NEW YORK)**

**I. INTRODUCTION**

1. On its eighteenth session to be held in May 2010, the United Nations Commission on Sustainable Development (CSD), will review the overall progress achieved in the implementation of commitments, purposes and targets agreed on in Agenda 21 and the Johannesburg Plan of Implementation of the World Summit on Sustainable Development (WSSD), through the thematic cluster on “transport, chemicals, waste management, mining and the 10-year Framework of Programmes on Sustainable Consumption and Production.
2. The Arab group consists of 22 countries, 10 of which are in Africa and 12 in Western Asia. In 2008, the population of the Arab region accounted for about 340 million inhabitants, representing 4.9 per cent of the world population. The demographic size in the region varies approximately between 82 million inhabitants in Egypt and less than one million in each of Bahrain, Djibouti and Qatar. During the last two decades, the annual population growth average reached 2.09 per cent in the region, compared to a global average of 1.5 per cent, with a 44 to 55 per cent increase in the number of inhabitants in urban areas. In 2008, the average rate of inhabitants of rural areas varied between 4.0 percent in Kuwait and 57.0 percent in Yemen. The development rate varies in the region whereas poverty constitutes a serious problem in number of Arab countries.<sup>1</sup>
3. This report reviews the progress achieved on the regional level in the implementation of engagements, purposes and targets related to the thematic cluster for the CSD implementation session (2010-2011). It will be presented to the Commission at its eighteenth session. It also addresses challenges and opportunities regarding the implementation of purposes and targets in the Arab region, as it highlights the priority work areas to follow up on the implementation of the five thematic topics.
4. The report stems from the coordination among the League of Arab States, the United Nations Economic and Social Commission for Western Asia (ESCWA), the Regional Office for West Asia of the United Nations Environment Programme (UNEP/ROWA), which have prepared a comprehensive regional report on each of the five topics of the thematic cluster and organized two regional expert group meetings, namely, the Second Roundtable for Sustainable Consumption and Production (27-29 September 2009) and the Expert Group Meeting on Transport for Sustainable Development in the Arab Region and its Relation with Climate Change Issues (29 September – 1 October 2009). The results of the regional reports were presented to experts in member countries in fields of transport, energy, environment and mining, whereas the outputs of the reports and recommendations of both meetings were discussed during the Arab Regional Implementation Meeting (RIM) held within the meetings of the Joint Committee on Environment and Development in the Arab Region (4-6 October 2009). The report includes inputs by countries as well as comments made before and during the above-mentioned regional meetings.
5. The report consists of five main sections: transport for sustainable development, chemicals, waste management (solid and hazardous), mining, and the 10-year Framework of Programmes on Sustainable Consumption and Production.

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<sup>1</sup> United Nations, DESA, Population Division. World Population Prospects, the 2008 Revision, Ref. Pop 1 DB/WPP/Rev2008/04/Fol a & b.

## II. TRANSPORT FOR SUSTAINABLE DEVELOPMENT IN THE ARAB REGION<sup>2</sup>

### A. CURRENT STATUS OF THE TRANSPORT SECTOR IN THE ARAB REGION

6. The Arab transport sector contributes greatly to meeting the requirements of social and economic development needs in the countries of the region, in addition to enhancing regional and sub-regional cooperation through the facilitation of transport of individuals and goods between countries. Despite this fact, transport-related activities have several environmental effects on natural resources, including air and water pollution and related general health problems. The transport sector in the Arab region produces about 22 per cent of the greenhouse gas emissions in the region, 85 per cent of which are due to road transport. Therefore, effective measures are needed to realize the sustainability of the transport sector in the Arab region, while preserving its effective role in achieving development.

7. The transport sector in the Arab region developed largely during the past decade with the average number of vehicles increasing by 4.2 per cent during the period 1997-2008, which exceeds the annual average of developing countries (2.8 per cent). Passenger vehicles in the Arab countries form about 60 per cent of all vehicles, whereas trucks and busses account for 28 and 3 per cent respectively. In 2005, the overall consumption of fuel and diesel, reached around 820 million tons of oil equivalent for land transport, which constitutes 51 per cent of primary energy consumption in the Arab region excluding the Comoros, Djibouti, Somalia and Mauritania.

8. Patterns adopted in traffic management and urban planning, as well as the decrease in public awareness as to safe traffic regulations, lead to a weak control of traffic. Moreover, traffic jams constitute a growing problem in the Arab region due to the increasing volume of traffic during the last years, particularly in cities comprising more than a million inhabitants such as Cairo, Baghdad, Beirut and Damascus, resulting from waves of rural emigration.

9. Fuel subsidies, the lack of effective and safe public transport means as well as the increase in the age of road transport vehicles exceeding an average of 15 years except for the Gulf countries, the decrease in the rates of maintenance and repair of vehicles result in weak efficiency as to energy use, an increase in consumption rates in road transport, thus to an increase in the emissions of greenhouse gas emissions from vehicles, which affects the possibility of achieving sustainability in this sector.

### B. PROGRESS ACHIEVED

10. Arab countries exerted prompt efforts to achieve sustainability in the transport sector on both regional and national levels. Legislations were issued, regulations ratified, plans and strategies put and infrastructures repaired and developed. Despite these efforts, the Arab transport sector still endures several problems, and many measures still need to be adopted in order to achieve the sustainability of the sector. The most important achievements made in the main required fields to achieve the sustainability of the sector are as follows:

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<sup>2</sup> - الاستبيان حول النقل المستدام في الدول العربية

Statistical Abstract of the ESCWA Region – Transport part “various issues”, Twenty Seventh Issue.

Energy Statistics of Non-OECD Countries, 2008 Edition, International Energy Agency (IEA) Statistics.

Environment 2007, International Conference on Integrated Sustainable Energy Resources in the Arid Regions, 28 January – 1 February 2007, Abu Dhabi.

Transport and Sustainable Development in the ESCWA Region, background paper No. 8, DESA, DSD-9, 16-27 April 2001, New York.

- اللجنة الاقتصادية والاجتماعية لغربي آسيا، تحسين كفاءة الطاقة واستخدام الوقود الأحفوري الأنظف في قطاعات مختارة في بعض بلدان الإقليم، سكوا، الجزء الثاني: استخدامات الوقود الأحفوري الأنظف، E/ESCWA/SDPD/2005/1 (Part II)، 7 نيسان/أبريل 2005.

- تقرير عن الردود على استبيان لتحسين السلامة المرورية على الطرق: تحديد الأهداف الوطنية والإقليمية لخفض ضحايا حوادث المرور على الطرق في دول الإسكوا، 2009.

### 1. *Necessary policies and measures to improve the management of the transport sector*

11. Arab countries adopted different sets of policies and measures aimed to improve the management of the transport sector, in particular through the following:

(a) *Developing public transport means* to reduce traffic congestion and limit the commuting time. Metro networks were introduced in Dubai and Egypt, already existing railways networks were developed in Egypt, and planning was made to introduce trains in the Jordan and the Syrian Arab Republic. However, it is crucial to introduce further measures to support public transport in the region;

(b) *Improving urban planning and traffic management* in several Arab countries to develop infrastructure in their cities and the roads networks for the past years (Egypt, Qatar, the Syrian Arab Republic and Saudi Arabia), as legislations and laws regulating traffic were developed;

(c) *Programmes for inspection of the emissions of vehicles* implemented in Egypt, Jordan, Kuwait, Lebanon, Saudi Arabia and the Syrian Arab Republic. Studies estimated that the average decrease in fuel consumption for vehicles will reach about 15 per cent;

(d) *Replacing old cars* with new ones in order to reduce air pollution and ensure road safety. Authorities in Egypt and Jordan adopted national plans to replace old taxi vehicles in large cities with new ones, by providing customs and tax exemptions for taxi and bus drivers to enable them to buy new vehicles.

### 2. *Adopting advanced technology in the transport field*

12. Countries of the region started introducing these technologies to vehicles, and focused particularly on using cleaner fuel in particular natural gas. Some countries such as Egypt achieved remarkable progress in this area namely for taxis, whereas the Syrian Arab Republic and the United Arab Emirates are following the same track. As for electric cars, they are still limited in the Arab region although some countries such as Egypt and Qatar are undertaking feasibility studies and implementing pilot projects on buses operating on hybrid energy and electric cars.

### 3. *Improving the specifications of fuel*

13. Arab countries exerted discrepant efforts in this context. Some made great efforts to improve the quality of fuel, or use cleaner fossil fuel, and tangible measures were taken for sulfur reduction in fuel in particular in Bahrain, Jordan, Kuwait, Lebanon, Palestine and Qatar. Most countries directed their efforts towards removing lead from fuel and limiting its rate in heating oil. Today, almost all fuel consumptions in the region are unleaded.

### 4. *Enhancing the roads and transport networks in rural areas*

14. Arab countries defined plans and implemented projects to enhance transport networks to all regions on the national and regional levels. These plans included the following:

(a) *At the national level:* Arab countries, particularly, Egypt, Jordan and Qatar, allocated budgets to finance reform projects for roads networks as well as to improve and maintain networks leading to rural and remote areas, maintain roads at the national level and build bridges and new tunnels;

(b) *At the regional level:* Arab countries plan to build a number of bridges and railways connecting them in order to support regional cooperation. Such projects include: (i) building a bridge between Qatar and Bahrain (one of the biggest suspension bridges in the world, stretching 40 kilometres above the sea); (ii) building railways connecting the countries of the Gulf Cooperation Council (GCC); (iii) project of

building a railway between the Sudan and Egypt; (iv) Jordan put a plan for a railways network connecting urban centres in Jordan and neighboring countries; (v) “Salwa” international highway connecting Qatar to Saudi Arabia.

#### 5. *Enhancing road safety*

15. Many Arab countries have one or more entities concerned with road safety, and most of them have national strategic plans to limit road accidents. On the other hand, the Arab Road Safety Organization was established to enhance cooperation and integration between Arab countries in this field. As for ESCWA, it is currently working on the Regional and National Road Traffic Causality Reduction Targets programme.

#### 6. *Developing institutional frameworks and standards*

16. Many Arab countries achieved remarkable progress in issuing standards and regulations regarding transport-related practices. Such initiatives included materials prohibiting the use of machines, engines or vehicles with emissions exceeding the allowed limits.

17. Arab countries adopted the Kuwait declaration issued by the Arab Economic and Social Development Summit held on 20 January 2009. The declaration stressed on the linkage of land, sea and air transport networks between Arab countries and achieving their sustainability, considering them the main veins of commerce, tourism, investment and employment within the Arab region. The Arab Ministerial Declaration on Climate Change held on 6 September 2007 also included texts related to the use of clean energy resources comprising the transport sector.

### C. CHALLENGES AND PRIORITY AREAS FOR ACTION

18 Arab countries are still facing many challenges in achieving the sustainability of the transport sector including:

(a) Weakness/absence of integration between plans and policy aimed to achieve the sustainability of the sector with insufficient institutional and regulatory frameworks;

(b) Inappropriate implementation mechanisms;

(c) Absence of technical expertise and limitability of awareness and capacity-building programmes with limited or lack of financing or credits;

(d) Lack of necessary data and information for programme planning.

19. In order to develop the role of the transport sector in achieving sustainable social and economic development, Arab countries need to work at both national and regional levels to put and implement sustainable transport policy and strategies, in respect of the conditions of each country and taking into consideration the following work areas:

(a) *At the national level*

(i) Reviewing, evaluating, implementing and updating current national transport strategies to enhance sustainable transport while issuing relevant legislations and laws for all transportation in particular land transport in a frame of consultations between all stakeholders;

(ii) Giving priority to enhancing and developing collective transport, particularly railways and metro and increasing the capacity of transport vehicles within cities;

- (iii) Improving the efficiency of maintenance and the fuel specifications while implementing emission inspection and testing programmes;
  - (iv) Improving traffic and enhancing road safety;
  - (v) Improving urban planning and using lands in order to shorten commuting distance and improving the infrastructure to become environment-friendly.
- (b) *At the regional level*
- (i) Reviewing current legislations and policies in Arab countries and defining a regional legislative framework based on them and on the requirements of sustainable transport, through current ministerial councils and sharing experiences between Arab countries to support recommended strategies;
  - (ii) Facilitating efforts aimed at mobilizing international, regional and national funds to finance high priority projects in the sustainable transport sector in Arab countries;
  - (iii) Supporting regional coordination and cooperation for capacity-building in the field of sustainable transport;
  - (iv) Organizing national and regional awareness campaigns on environment and road safety for all categories.

### III. CHEMICALS<sup>3</sup>

#### A. CURRENT STATUS OF CHEMICALS MANAGEMENT IN THE ARAB REGION

20. Arab countries contributed efficiently in the Strategic Approach to International Chemicals Management (SAICM) development process, which was launched by the Preparatory Committee in 2003. The approach was multi-sectoral and included many government representatives and a wide range of stakeholders. During the first session of the international conference on chemicals management which was held in Dubai in February 2006, Arab countries contributed in several papers including: Dubai declaration on international chemicals management, the Overarching Policy Strategy (OPS) and the Global Plan of Action (GPA).

21. Arab countries played an important role in the preparatory process to set the general framework of the Strategic Approach and had as well, a positive contribution by adding capacity building and illegal international traffic to the objectives of the OPS. Furthermore, Arab countries presented the Ministerial declaration issued by the Council of Arab Ministers Responsible for the Environment (CAMRE) at its 17th session in December 2005, which stressed a commitment to implement OPS and GPA.

#### B. PROGRESS ACHIEVED

22. Arab countries support the SAICM as a mechanism to facilitate their efforts and coordinate public policies towards achieving the Johannesburg plan target aimed to reach ways of reducing the adverse dangerous effects of chemicals production and use on the environment, and human health, as much as possible, by 2020. Arab countries delegations that met in Geneva in May 2009 adopted the high-level political declaration on the second International Conference on Chemicals Management, that is considered a reiteration of the Arab countries position as to the implementation of the strategic approach.

23. Arab countries made progress in implementing the strategic approach at the following levels:

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<sup>3</sup> إدارة البيئة والإسكان والتنمية المستدامة، القطاع الاقتصادي، الأمانة العامة لجامعة الدول العربية، تقرير التقدم المحرز في تنفيذ النهج الاستراتيجي للإدارة الدولية للكيميائيات في الدول العربية، 2009.

(a) The inclusion of SAICM in the agenda of the Arab team responsible for the follow up on the Multilateral Environmental Agreements on chemicals and hazardous wastes. Its main outputs were as follows:

- (i) Establishing the SAICM Arab Coordination Unit on the international management of chemicals;
- (ii) Issuing the SAICM Arab implementation plan;
- (iii) Issuing the SAICM implementation guidelines;
- (iv) Issuing the necessary standards to define priorities at the Arab level;

(b) The designation in many Arab countries of national focal points and the establishment of national committees including all stakeholders;

(c) The establishment and activation of national cleaner production centres in the Arab countries. Efforts are underway to establish a network to share experience and knowledge;

(d) Developing and implementing the Regional Program for Trade and Environment Capacity Building for the Arab Region, and establishing a number of regional committees for trade and environment within the programme. A list of Arab guidelines on environmental goods was also prepared and adopted by CAMRE;

(e) Carrying out a study on the degree of consistency of environmental legislations in Arab countries with the obligations by virtue of environmental treaties, as well as the preparation of Arab guidelines to develop and update legislations;

(f) The continuation of the regional programme on Arab capacity-building in safe management of hazardous wastes, while holding several training sessions on subjects related to the strategic approach;

(j) The Regional Centre for Training and Technology Transfer for Arab Countries annexed to the Basel Convention prepared a draft Arab Strategy on preventing illegal international traffic in hazardous wastes. Measures are currently being taken for its adoption.

## C. CHALLENGES AND PRIORITY WORK AREAS

### 1. *The challenges*

24. The implementation of SAICM faces many challenges including:

(a) Lack of an international financial mechanism for SAICM implementation and of national resources – including, financial, technical, adopted laboratories, and others – to handle chemical safety issues;

(b) Lack of legislations and ways of enforcement with a disparity in implementing international environmental treaties and its impact on the national and regional implementation of some of these treaties;

(c) Lack of commitments by developed countries to fulfill their obligations to transfer technologies, provide safe alternatives and build capacities;

(d) Delay in establishing national committees and lack of coherence and synergies between existing national institutions related to SAICM in addition to current processes which led to a lack of capacities in many Arab countries for a sound management of chemicals at both the national and Arab regional levels;

(e) Difficulties in the implementation of SAICM due to the existence of multistakeholders and the environmental, economic, social, health and labour aspects. Difficulty in obtaining information about many chemicals currently in use and the lack of updated and complete databases on chemicals;

(f) Insufficiency of mechanisms used to address the social and economic impacts of chemicals on human health, society and environment, and the lack of objective scientific standards, methods and information that enable the evaluation of the chemicals effects and risks at the Arab regional level.

## *2. Priority areas for action*

25. At the national and Arab levels, work should be focused on the following:

(a) Applying the principle of risk calculation, analysis and assessment while adopting standards for environmental economic degradation resulting from the hazardous use of chemicals;

(b) Finding the suitable mechanisms to deal with environmental degradation resulting from the unsafe use of chemicals, including evaluating and accrediting specialized laboratories and plants, in addition to activating and updating legislations and laws that are in line with the relevant international treaties;

(c) Enhancing the partnership principle and ensuring a wider participation of stakeholders in implementing the strategic approach while providing intensive training opportunities on the Globally Harmonized System (GHS) of classification and labeling of chemicals;

(d) Preparing the integrated management strategy for chemicals and hazardous wastes;

(e) Providing easy-access databases and information systems for chemicals in use, which cover the life cycle of chemicals. Exchange experiences to promote the transfer of modern technologies and safe alternatives.

26. At the international level, developed countries and the international community need to work on providing international mechanisms and frameworks to enhance the capacities of developing countries in implementing the strategic approach, including the following:

(a) Including all issues related to chemicals management and of the measures implemented by virtue of the international conventions within the strategic approach, while maintaining the harmony and agreed upon mechanisms in the management of such topics without interference;

(b) Adopting an international sustainable financial mechanism, characterized by its flexibility and coherence, to fill the gaps in the implementation possibilities of the strategic approach in developing countries. It should provide close opportunities for different countries to implement the strategic approach;

(c) Encouraging commitment by all countries, specially the developed countries, to facilitate information dissemination and to provide the required expertise to enhance chemicals management with concessionary conditions and total support to implement the approach and transfer modern technologies;

(d) Developing local, regional and international programmes for extended workshops which aim to raise stakeholders' perception concerning the importance of improving chemicals management and the efficiency of such an administration. Similar programmes must also be provided to raise community awareness of chemicals hazards and promote it through the media;

(e) Developing the Global Plan of Action to make it more suitable to the actual needs and circumstances of countries;

(f) Strengthening cooperation in the fields of research and technology transfer while providing support and financing to developing countries to develop and establish specialized research centres;

(g) Providing and improving existing mechanisms to deal with the social and economic effects of chemicals on human health, the community and the environment, including liability, compensation and restitution of rights to their owners.

#### IV. WASTE MANAGEMENT IN THE ARAB REGION<sup>4</sup>

27. There are numerous issues related to the sound management of waste in the Arab region and they differ between countries to form a big challenge not only in view of the severity of the problem and its economic and environmental effects, but also due to the lack of updated scientific data and statistics necessary to form an objective evaluation of the real problem and propose solutions.

28. Solid and hazardous wastes are generated by several economic and services sectors in the Arab countries, as they are represented by agricultural and industrial residues as well as municipal solid residues. Hazardous wastes include medical and e-wastes.

##### A. CURRENT STATUS OF WASTE MANAGEMENT IN THE ARAB REGION

29. The sound management of waste goes beyond safe disposal or recovery of originated wastes as it aims to solve the problem through changing inadequate production and consumption patterns. Waste management varies according to its forms. However, despite their different forms, wastes are similar in the way they are handled by the formal sector, the management, and the need for advanced techniques of treatment, or spreading awareness among the public, institutions and companies concerned with its environmental, health and economic repercussions.

30. **Solid municipal wastes** are generated by houses and commercial, educational and health institutions. In 2007, around 83 million tons of wastes were originated in the Arab region, most of which were organic substances. The limited efforts exerted at the national level lack updated and systematic statistics, an objective evaluation of the status of municipal waste, and the completion of scientific studies to define their status.

31. **As for agricultural wastes**, 500 million tons were generated by the Arab world in 2004, 81 per cent of which were animal waste. Recycling is limited whether through producing animal fodder, drying to form conventional fuel or organic fertilizers, or producing alcohol and polywood and paper.

32. **In the field of hazardous waste**, management varies between Arab countries which generate no less than 300 thousand tons per year. Despite that, a limited number of Arab countries developed strategies for sound management of hazardous waste and systems to follow-up on the implementation of such strategies.

33. **In the context of hazardous medical waste**, despite the implementation of national legislations and the commitment to international standards and treaties, exerted efforts have not been promoted to the required level of integrated and comprehensive work at the national level. Such implementation lacks financial and technical resources as well as necessary information. 330 thousand tons per year in the Arab

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<sup>4</sup> - إدارة البيئة والتنمية المستدامة، الأمانة العامة لجامعة الدول العربية، المخلفات الصلبة البديلة في الدول العربية، الوضع القائم، التحديات، أساليب التعامل، آب/أغسطس 2009.

- مركز اتفاقية بازل للتدريب ونقل التكنولوجيا للدول العربية - جامعة القاهرة - جمهورية مصر العربية، نظرة عامة على إدارة المخلفات الخطرة بالمنطقة العربية.  
- المنظمة العربية للتنمية الزراعية، جامعة الدول العربية، تدوير المخلفات الزراعية في الدول العربية، ورقة عمل مقدمة إلى المؤتمر الإقليمي حول النقل المستدام بمقر الأمانة العامة لجامعة الدول العربية، 28-30 أيلول/سبتمبر 2009.

- برنامج الأمم المتحدة للبيئة، المكتب الإقليمي لغرب آسيا، مملكة البحرين، تقرير حول إدارة النفايات الطبية الخطرة في الوطن العربي - بين الواقع والمأمول، 2009.  
Hossam Allam. The Status of E-Waste. Centre for Environment and Development for the Arab Region Management Practices in the Arab Region.

world cannot plainly be incinerated in 445 stations that do not meet environmental conditions, but must rather be done within the framework of a more comprehensive strategy for integrated waste management.

34. **Electronic wastes** (e-wastes) comprise all unused electrical and household appliances. Spreading awareness about their danger is still very limited at all levels in the Arab world. Therefore, the priority in developing management resides in raising awareness and collecting related data, while implementing pilot projects and defining a regulatory and legal framework that regulates the way of handling them.

35. **As for industrial waste**, the industrial and technological developments have led to an increase in the volume of industrial wastes, whether liquid, solid or gas, to constitute a risk on human health and the environment. In 2008, the amount of such waste reached 89.6 million tons per year in the region which equals around 240,000 tons of solid waste per day. Less than 20 per cent of such waste is treated in conventional or modern ways whereas less than 5 per cent is recycled.

36. Statistics estimate the wasted wealth in Arab countries by 5 billion dollars annually due to a lack of interest to invest in the field of waste, in addition to the cost of fighting plagues, diseases and insects resulting from the accumulation of waste in the streets, fields, plants and wastewater. Arab countries spend around 5.2 billion dollars each year to fight adverse effects caused by the absence of recycling and reuse of different wastes sources.

37. Statistics indicate that the overall quantity of waste collected does not exceed 50 per cent of its real quantity, and the cost of collection and dumping of such waste exceeds 850 million dollars. Arab investments in the field of waste recycling in general, and solid waste in particular, are very limited and do not exceed 200 million dollars. Most such investments are mere individual attempts with weak capacities, whereas there is need for integrated and strong industries are in order to recycle wastes and make use of produced paper, glass, fertilizers, plastic and other materials.

## B. PROGRESS ACHIEVED

38. Arab countries made some efforts, even though not sufficient, to deal with the problem of sound management of waste. Progress achieved included the issuance of several laws and regulations aimed to organize work in waste management with intensive efforts to provide necessary financing and training for their programmes. In this context, most Arab countries ratified the Basel convention on trans-boundary movement of hazardous wastes and their disposal in an attempt to benefit from international experiences in this field and customize their applications to suit the characteristics of every country. The League of Arab States adopted the sustainable development initiative in the Arab region which focuses on the sound management of waste as a factor for achieving sustainable development. The GCC supreme council adopted in 2001 the “common system for healthcare waste management”. Although a limited number of Arab countries enacted waste-related laws, most of them have environmental laws that include provisions on waste.

39. **In the context of the common Arab cooperation**, the League of Arab States, in cooperation with Arab and United Nations organizations, exerted efforts to support the activities of Arab countries in this field including:

(a) Promoting the establishment of national cleaner production centres in Arab countries. National centres were established in Egypt, Jordan, Lebanon, Morocco, the Syrian Arab Republic, Tunisia, and the United Arab Emirates;

(b) Several training sessions and workshops were held that examined the status and proposed solutions to central issues including the “management of recyclable and reusable solid waste”, “modern trends in the pollutant waste management”, “the economic and environmental benefit of recycling industrial

waste”, “the treatment of wastewater”, “recycling plastic waste”, and the “environmentally safe management of electronic and electrical waste”.

## C. CHALLENGES AND PRIORITY AREAS FOR ACTION

### 1. *The challenges*

40. Although a number of countries prepared strategies, policies and plans and implemented several programmes and projects related to waste management in its different forms, achieving sustainable waste management faces many challenges which have led to the delay in implementation. The main challenges are as follows:

(a) Lack of accurate informational or statistical data or reliable inventory processes on the waste quantities from their different sources produced in different sectors in Arab countries;

(b) Insufficiency of legislations and weak implementation. Some countries defined organizational frameworks but they still lack managing capacity as to the implementation and the effective commitment;

(c) Weak infrastructure for waste management including hazardous waste, and the absence in a number of Arab countries of sound waste management capacities;

(d) Lack of comprehensive national plans to deal with industrial waste, and the failure to establish national committees in many Arab countries. As for countries which have established such committees, most of them fail to ensure the participation of all related sectors and stakeholders;

(e) Inadequate efficient specialized human capacities and lack of awareness in Arab countries as to the importance and role of the integrated waste management. Inaction from the governmental institutions, and the lack of investment by the private sector in this field;

(f) The industrial sector, in particular small institutions, does not possess updated and good management systems in most areas of the region, which makes the establishment of an integrated waste management very expensive;

(g) Lack of commitments by developed countries to fulfill their obligations in providing financial resources, transferring technology, providing safe alternatives, and capacity-building towards developing countries, which could assist in reducing wastes;

(h) Difficulty of harmonizing the implementation procedures of international treaties related to hazardous waste, in addition to a discrepancy between the implementation of international environmental treaties and its impact on the national and Arab regional implementation.

### 2. *Priority areas for action*

41. **At the national level**, priority areas for action in the next phase can be summarized as follows:

(a) Defining a comprehensive strategy for the management of all forms of waste at the national level in Arab countries, based on the implementation of the integrated waste management concept including their reducing, classifying, defining their sources and risks, and developing its operating mechanism for their uses, while looking for appropriate and safe alternatives for treatment;

(b) Adopting the methodology of cleaner production, as well as the best environmental practices to limit the generation of waste, produce environment-friendly goods and ensure the safety of the labour force, in addition to making the best use of generated waste;

(c) Establishing monitoring, inspecting and following-up mechanisms in order to provide a chronological data necessary to accurately define the degree of competency and efficiency of any activity, while making use of data collected to update strategies.

42. **At the regional and international levels**, Arab countries must work on:

(a) Establishing an Arab system for data and information that facilitates cooperation, coordination, exchange of experience, planning, evaluation, and defining problems and needs;

(b) Adopting a clear international financial mechanism that works on providing close opportunities for different countries in implementing the goals and activities included in Agenda 21;

(c) Preparing an updatable Arab plan of action that would be coherent with the real needs, and available capacities of the different countries;

(d) Updating existing legislations to be in line with the relevant international agreements, while providing human capacities and implementation mechanisms at all levels and imposing financial penalties on violators;

(e) Preparing and implementing comprehensive awareness campaigns in the media to clarify the usefulness of the integrated waste management, and encourage national entities to obtain the ISO 14000 environmental management certificate;

(f) Defining local, regional and international programmes for expanded workshops aimed at improving the level of awareness of all stakeholders, on the importance of developing industrial wastes management programmes and their usefulness. Working on their implementation in cooperation with different civil society organizations for spreading awareness as to the importance of management;

(g) Supporting and building necessary institutional capacities and developing human resources in the field of waste management, as well as evaluating and choosing technologies, while supporting researches and studies related to industrial waste management;

(h) The necessity of providing safe and accessible alternatives as well as safer technologies and appropriate facilities for the treatment and safe disposal of hazardous waste;

(i) Preparing a financial analysis for solid waste management economies in all its stages from the collection, to the transfer and disposal;

(j) Enhancing the role of the private sector in the field of integrated management of industrial waste through its participation in defining public policies, and encouraging its investment in manufacturing the required tools;

(k) Enhancing international cooperation, and encouraging the commitment to regional and international treaties organizing the movement of hazardous waste across international boundaries as well as the participation in the activities of these agreements.

## **V. PROGRESS ACHIEVED IN THE FIELD OF MINING<sup>5</sup>**

### **A. CURRENT STATUS OF THE FIELD OF MINING IN THE ARAB REGION**

43. Arab countries possess several raw minerals such as raw phosphate, iron, gold, faux rocks and others. Exploration, extraction and industrialization activities have been developed in many Arab countries.

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<sup>5</sup> المنظمة العربية للتنمية الصناعية والتعدين، إدارة الثروة المعدنية، تقرير عن التقدم المحرز في مجال التعدين والطاقات المتجددة في الدول العربية، حزيران/يونيو 2009.

However, this is still insufficient in comparison with the wealth available and the ways of making use of it. The utilization of these materials represents an important segment in the economies of region, with a capacity of achieving numerous promising economic and social benefits.

## B. PROGRESS ACHIEVED

44. Arab countries exerted many efforts to develop their capacities in investing in mineral wealth, including:

(a) Establishing national centres for remote sensing, and starting to develop geographic databases considered to be an important step towards enabling countries to perform necessary geological, physical and environmental studies to define potential fields of investment and raw minerals reserves, and organizing training sessions for staff on using geographic information systems. The United Arab Emirates established a club and a library to organize geographic information in this context;

(b) Most Arab countries started to enact laws and regulations encouraging investment which helped in increasing investments directed towards developing the exploitation of mineral wealth on their lands. However, there is still a need to review legislations and laws regulating the exploitation of the mineral wealth in a coherent way with regional and international variables.

45. In the context of the common programmes of law, and recognizing the importance of achieving the Arab integration in the field of mining, Arab countries achieved the following:

(a) Establishing and activating the Arab Industrial Development and Mining Organization (AIDMO) which plays a pivotal role in enhancing Arab integration through the preparation of a detailed study on the needs of the Arab industry for raw minerals available in Arab countries and defining a strategy and its mechanism to encourage and motivate the local and foreign sectors to invest in exploiting minerals available in the Arab region. The region is currently preparing a study on mining investment and assessing the mineral wealth sector as well as the requirements of its development in Arab countries. The Arab region also digitized a geological and mineral map;

(b) Orientation of Arab governments towards developing their mining industries and achieving integration in the fields of developing extraction works and industrialization activities in addition to strengthening feeding industries related to the mining sector, in order to get a fair share in the global market of raw materials and final products;

(c) The council of Arab ministers responsible for the mineral wealth affairs is currently working on formulating a plan of action for the Arab partnership strategy for the development of the mineral wealth sector, which can be implemented to attract Arab and foreign investment and establish Arab economic entities capable of assisting in mining investment projects in order to enhance economic growth, alleviate poverty and achieve sustainable development in the Arab world.

## C. CHALLENGES AND PRIORITY WORK AREAS

### 1. *The challenges*

46. A number of challenges face the achievement of the desired prosperity in the mining sector including:

(a) Shortage of currently available databases and the need to develop them as well as the limited Arab cooperation in this field, in particular as to the availability of raw materials and the needs of the market;

(b) Customs and taxation obstacles that limit the competitiveness of production and a lack in investment incentives in the processes of exploration and exploitation in promising areas of mineral wealth;

(c) The need to update existing legislations and laws and to enforce them.

## 2. Priority areas for action

47. Developing Arab capacities in the field of mining requires the following:

(a) Working on completing the formulation of the strategic plan of action of the Arab partnership for the development of the mineral wealth sector;

(b) Providing the infrastructure and encouraging investment in the region in the field of mining and the related industries, and inviting international financial institutions to support and finance mining projects in the Arab countries;

(c) Coordinating between regional Arab institutions in the fields of remote sensing, geological surveying, exploration, mineral search, performing researches and offering consultations, studies of common interest, sharing research and technical capacities in the mining sector among Arab countries;

(d) Inviting geological survey, mineral exploration and search institutions and bodies in western countries to cooperate with their counterparts in Arab countries in the field of research, development and making use of their laboratories in order to develop Arab human resources;

(e) Looking into the possibility of establishing and founding organizations and mining chambers in Arab countries to contribute and coordinate to invite sector to invest in the field of exploration and mining. Encouraging investment in small and medium-sized mines located in remote regions in Arab countries;

(f) Coordinating between training centres and mining schools in the region in order to develop skills, training, establishing centres specialized in mining, and providing scientific and geological information necessary for the development of mineral extraction and industrialization processes.

## VI. 10-YEAR FRAMEWORK FOR SUSTAINABLE CONSUMPTION AND PRODUCTION

### A. CURRENT STATUS

48. Arab countries exerted significant efforts to include policies related to sustainable consumption and production in the management of different sectors, and achieved mixed results, whether at the country or sector level. Efforts focused on several specific sectors including energy, water resources, rural development and tourism in addition to the related issues of waste management, education and lifestyles. However, results achieved in these sectors are still mixed and limited overall, a fact that requires channeling more efforts to building on what has already been achieved and seeking to achieve the sustainability goals in these sectors and beyond. Focus should be kept on procedures that have achieved faster and deeper results, provided such a step is accompanied by national and regional programmes for capacity-building, appropriate technology transfer and settlement.

49. **As to the energy sector**, it is considered to be of the largest economic sectors in the Arab region and is characterized by the presence of a huge sector of oil and gas, and an important sector of electricity production, 90 per cent of which rely on fuel and gas resources. Despite the availability of renewable energy resources, their contribution to the energy sector is still limited, and although the sector plays a vital role in meeting the development needs and contributes greatly to the Arabic economies, consumption and production patterns in the sector still need further improvement and more efficiency, knowing that 20 per cent of the population still lack modern energy services. Therefore, there is still a need to channel greater efforts to raising the efficiency of production and consumption particularly in the electricity, industry and domestic sectors, in addition to the transport sector, as well as the importance of raising the contribution of new and renewable energy resources and cleaner fuel which is “natural gas” in the energy production and delivering modern energy resources to poor regions in urban and rural areas.

50. **As to the management of water resources**, the scarcity of water resources forms one of the main challenges obstructing development in the Arab region. Ten of the poorest countries in water are Arab countries, whereas the annual share of water per capita is less than 500 cubic metres in eight Arab countries. Around 50 million people in the region do not have access to safe drinking water, whereas approximately 80 million people do not have access to safe sanitation. In addition to that, the growing demand for water due to the increase in the number of populations and the rapid development result in the exacerbation of water problems, particularly in the light of the inefficient policies and practices in the management of resources, and the absence of safety and security in several countries of the region. Moreover, approximately 80 per cent of water resources are common international waters, which could constitute a cause of conflicts in the region.

51. In view of this critical water situation, countries of the region directed great efforts, with the support of Arab organizations and United Nations organizations in the region, to encourage integrated management of water resources including enhancing the capacity of water use in different sectors and developing sanitation regulations. Arab countries work as well on developing non-conventional water resources, in particular, desalination and recycled wastewater, agricultural wastewater and encouraging rain-fed agriculture to limit the use of water in agriculture. Establishing the Arab ministerial council on water in June 2009 reflects the concerns of Arab countries in this context, and constitutes a step towards achieving regional cooperation in managing water resources.

52. **As to rural development**, the nature of rural areas and their populations vary greatly between Arab countries. Whereas agricultural features distinguish most Arab countries, desert characteristics prevail in the Gulf region. Population rates in rural areas vary between countries as they ranged between 4 per cent in Kuwait and 75 per cent in Yemen in 2008. Rural areas generally endure poverty due to the absence of infrastructure, namely electricity, water, sanitation, appropriate healthcare and education and decent residence, which leads to an extreme deficiency in productive activities in these areas, and thus to an acute decrease in income. Rural women, in particular, suffer from the increase in burdens with the unavailability of health and educational possibilities or appropriate employment opportunities.

53. Agricultural development in the Arab region faces a series of challenges, including the incompetent use of natural resources, particularly lands, water, random urbanization, deforestation and the intense use of agricultural chemicals which lead to soil pollution and degradation.

54. Therefore, achieving rural development in a way to ensure the development of sustainable consumption and production patterns, as well as reducing poverty, requires the improvement of the quality of life of rural inhabitants, achieving food security and the Millennium Development Goal (MDG) of halving hunger by 2015, in addition to providing equal opportunities to the empowerment of rural women.

55. **As to tourism** and acknowledging the importance of this sector in supporting national economies and creating additional work opportunities, Arab countries made great efforts during the last three decades to develop the tourist sector which witnessed a fast development to become one of the fundamental sectors of national income particularly in Egypt, Jordan, Lebanon and the United Arab Emirates. The sector attracted huge investments from both public and private sectors, and the number of hotels and reservations increased largely for all kinds of tourism including religious pilgrimage, environmental, cultural, vacations and business tourism. Despite that fact, limited number of Arab countries adopted standards to ensure the sustainability of the sector particularly in the light of the sector activities being linked to the sustainable consumption of energy, water, transport and waste. Although environmental tourism managed to attract some interest, it is still deficient compared to the multiple capabilities available to Arab countries in this context. Therefore, developing environmental tourism and achieving the sustainability of tourist activities are very important in achieving the sustainable patterns of consumption in this sector.

56. **As to waste management**, issues related to sound management of waste in the Arab region are multiple and vary between countries, as shown in the fourth section of this report which exposed in detail the

priority areas for action at the national and regional levels. This section reviews the activities included in the 10-year framework of sustainable consumption and production as to the sound management of waste.

57. **As to education and sustainable lifestyles**, Arab countries are working on implementing national programmes to eliminate illiteracy and reform national education systems; however illiteracy still constitutes a clear problem in many Arab countries, as one third of young people in the least developed Arab countries are illiterate. Since the Arab world comprises the larger portion of youth among developing regions, addressing the youth is extremely important regarding the consumption and production patterns in the future as well as markets and lifestyles. Therefore, increasing the rate of educated young people and improving the unsustainable ways of living at the national level require developing national strategies and programmes for education and eliminating illiteracy, while including sustainable consumption and production issues and the sustainable lifestyle in official curricula. Regional Arab organizations with the help of countries, ought to work on achieving the above-mentioned issues in addition to updating and activating the strategic plan put by the Arab League Educational, Cultural and Scientific Organization (ALECSO) to develop education in the Arab world as it confirms the common links between education and sustainable development.

## B. PROGRESS ACHIEVED

58. During the last two decades, Arab countries made a significant progress in many required areas to achieve sustainable consumption and production in the sectors mentioned in this section of the report. Progress achieved in the fields of water and energy resources was presented in the Arab region implementation reports that had already been presented to CSD-12 and CSD-14. Chapter Four of this report addresses in detail the progress achieved in the area of sound waste management. Based on that, and since CSD-18 focuses, in the “sustainable consumption and production” theme, on the 10-year Framework to achieve the required result in this area, this section will focus specifically on policies adopted by the Arab countries in all the above-mentioned areas whereas the third section addresses priority activities proposed for implementation within the 10-year Framework for Sustainable Consumption and Production.<sup>6</sup>

59. **In the field of energy**, adopted policies focus on the following: (a) providing modern energy services and supplies to the population particularly in rural and remote regions; (b) economic management of energy facilities including the review of the current fees in this field; (c) encouraging investment in the fields of mining for oil and gas, their production and the use of cleaner technology; (d) promoting projects for electric and natural gas networks at the regional and interregional levels; (e) encouraging the participation of the private sector in the establishment and management of energy facilities; (f) improving energy efficiency while expanding the use of cleaner fuel and renewable energy technology; (g) promoting the use of public transport and railways while supporting the construction of regional and sub-regional road networks to facilitate trade and transport.

60. **With regard to water resources**, adopted policies to achieve the sustainable consumption and production of water resources include the following: (a) adopting the integrated water resources management that take into account the economic and social targets and the circumstances of each country; (b) supporting efforts to develop alternative water resources, develop new desalination technologies, collect rain water, recycle and reuse water and use of environmentally safe new technologies; (c) developing and implementing water quality standards, while recycling and reusing treated wastewater; (d) managing demand on water while improving agricultural practices and irrigation methods to increase consumption efficiency; (e) ensuring the rights of downstream countries to share common surface water resources; (f) enhancing regional cooperation and integration in water resources management; (g) increasing public awareness of the requirements of the sustainable consumption of water resources while enhancing the role of the civil society and non-governmental organizations (NGOs) in this context.

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توصيات المائدة المستديرة الثانية حول الإنتاج والاستهلاك المستدام، مقر جامعة الدول العربية، القاهرة (27-29 أيلول/سبتمبر 2009).<sup>6</sup>

61. **In the field of rural development and alleviation of poverty**, the following policies need to be adopted: (a) improving the infrastructure in rural areas particularly water and energy facilities and roads, as well as the use of renewable energy resources; (b) improving access to education and health services, water and sanitation in rural areas while achieving gender equality in the development process; (c) encouraging the establishment of small and micro industries while providing microcredit services to rural population; (d) enhancing public investments efficiency in agriculture and rural development; (e) encouraging sustainable agricultural practices particularly in the use of water and reducing the use of fertilizers and chemicals.

62. **With regard to education and sustainable lifestyles**, the increase in the rate of educated young people and dealing with unsustainable lifestyles require the following: (a) supporting the development of national strategies and programmes for education and eradication of illiteracy while supporting the implementation of the internationally agreed goals in the field of education; (b) integrating the issues of sustainable consumption and production and a sustainable lifestyle in formal curricula; (c) enhancing the standards of “green” buildings and the ecological relations as well as the standards of fuel consumption efficiency; (d) raising awareness through the media and NGOs by preserving environmental resources and the efficiency of products and services.

#### C. 10-YEAR FRAMEWORK FOR SUSTAINABLE CONSUMPTION AND PRODUCTION

63. In light of the policies adopted by Arab countries to motivate work in the area of sustainable consumption and production included in section two above, the second roundtable on sustainable consumption and production in the Arab region, held at the headquarters of the League of Arab States in Cairo, on 27-29 September 2009, identified six main sectors to be focused on during the next 10 years, and priority programmes in each of those sectors.

64. **In the energy sector**, the proposed programmes called for giving priority to:

(a) Improving the efficiency of electricity consumption and production, through the following:

- (i) Improving the efficiency of electricity production stations through the use of high-capacity production units, improving the performance of boilers and introducing the systems of recovering wasted heat and co-generation;
- (ii) Improving the efficiency of electricity networks by increasing investments in modernizing networks and reducing loads of existing networks to encourage small-capacity electricity generation by using local units;
- (iii) Improving the efficiency of electricity in the buildings sector, by adopting environment friendly construction methods and using high efficiency electrical appliances, and formulating and implementing appropriate legislations;
- (iv) Posting quality labels on electrical appliances: issuing specifications related to electrical appliances efficiency and adopting the necessary legislations for implementation; and adopting necessary policies to develop and adopt green purchases regulations for electrical appliances.

(b) Developing sustainable transport while giving priority to developing and use of public transport, including the adoption of necessary policies, construction of railways and developing the existing ones and encouraging the construction of metro lines and increasing the capacity of road transport, construction of beltways and regional and sub-regional roads while collecting tolls to ensure their continuous development. In all cases, it is necessary to work on improving the specifications of fuel and increasing the use of natural gas as much as possible;

(c) Developing the use of renewable energy resources in light of the current development of their techniques and based on the progress achieved by the countries of the region in implementing their pilot projects, particularly in high-capacity electricity generation, and some countries starting to manufacture their equipment locally. Therefore, efforts should be channeled towards:

- (i) Including renewable energy projects in the strategies of the energy sector and working on developing them, while working on capacity-building in planning and implementing renewable energy projects and manufacturing their tools;
- (ii) Disseminating the possibilities of using renewable energy technologies through implementing them in different sectors particularly in rural areas and high-capacity electricity generation;
- (iii) Establishing small- and medium-sized companies for project implementation or the installation and maintenance services particularly in rural areas to create job opportunities.

(d) Establishing a partnership on energy efficiency in the Arab region, among specialized entities in member countries and the relevant Arab and regional organizations in this field, to exchange information and assist the Arab countries in formulating necessary legislations and mechanisms and implementing capacity-building programmes on energy.

65. **In water resources management**, the proposed programmes called for giving priority to:

(a) Improving water use efficiency, through: (i) encouraging the use of efficient water use equipment; (ii) supporting the investment in efficient technologies for water use; (iii) examining the possibilities of equitable distribution of resources on the different sectors particularly the sectors of agriculture and industry;

(b) Management of common water resources, through supporting regional cooperation in implementing international commitments on common water, and implementing capacity-building programmes in negotiating common water issues;

(c) Safe use of sanitation water, through developing and improving specifications of sanitation water treatment methods and safe use standards in addition to providing incentive to develop treatment techniques and creating a favourable environment.

66. **With regard to sound waste management**, the proposed programmes called for:

(a) Recycling and reuse through: (i) encouraging investment in this field; (ii) separation and sorting at the source; (iii) developing specifications for regulations and ways related to the recycling processes;

(b) Producing waste-based fertilizers through encouraging the use of animal waste as agricultural fertilizers and supporting the necessary infrastructure for reuse processes.

67. **With regard to sustainable tourism**, priority programmes include the following: (a) achieving the sustainability of tourist processes through the establishment and operation of all tourist facilities and developing eco-tourism; (b) developing integrated management for touristic regions, while implementing capacity-building programmes for workers in this sector on ways to achieve sustainability of tourist activities.

68. **With regard to education and sustainable lifestyles**, priority programmes include the following: (a) capacity-building of young people in achieving sustainable consumption and production in all sectors and integrating them in curricula; (b) training government procurement experts on green procurement and

developing related regulations at the national level, and above all (c) developing national strategies for education and eliminating illiteracy, that take into account sustainability considerations and providing a decent life for the population.

69. The implementation of all major programmes requires governments to play a principal role in achieving the goals as well as developing and implementing programmes and strategies, and calls on other relevant entities to shoulder their responsibilities in this process, in particular in the business and industry sectors, NGOs, the civil society, the media and the individuals.

70. In seeking to achieve targets and goals in the above-mentioned priority areas, Arab countries call on the international community and regional and international organizations to support their efforts through capacity-building programmes, by providing technical assistance mainly in the following fields: (a) capacity-building in the field of cleaner production and supporting the establishment of relevant national centres; (b) using market-based instruments in developing policies; (c) green procurement and eco-design, eco-packaging, eco-efficiency and eco-labeling; (d) corporate social and environmental responsibility and extending the scope of responsibility of the producer; (e) improving institutional capacities of governments mostly with regard to evaluating environmental risks and developing innovative financing plans comprising microfinancing; (f) supporting youth exchange programmes for a sustainable lifestyle; and (g) providing technical support for governments in the field of hazardous waste management.