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REPORT ON THE STATE OF SECTORAL STATISTICS IN THE ESCWA MEMBER STATES

Introduction

1. The Statistics Division of the Economic and Social Commission for Western Asia (ESCWA) establishes its programme of work bearing in mind the principal purpose for which ESCWA was created, namely to bring about sustainable development in the countries of the region. In the current literature, "sustainable development" means striving to achieve, or preserving, development rates that ensure good standards of living both now and for future generations, while preserving the environment and protecting it both now and in the future.

2. Since the founding of ESCWA, the Statistics Division has assiduously collected and published economic and social data that define the general characteristics of the member States, in addition to issuing statistical bulletins of a descriptive nature. The Division has zealously offered technical assistance to member States for setting up meetings of experts in the different fields of statistics and in organizing training workshops aimed at both the enhancement of the capacities of staff employed in national statistical organizations and the application of uniform concepts and standards adopted by the United Nations in various fields, especially national accounts, foreign trade statistics and industrial statistics, as well as numerous types of social and demographic statistics. Yet much effort is still needed to standardize the statistical content of the official national bulletins published by the member States.

3. Sectoral statistics play a fundamental role in the formulation of countries' environmental and development policies. It is essential, therefore, to concern oneself with them, to codify uniform concepts and standards for measuring them and calculating the related indicators, and to establish the links between those sectoral indicators. All this is required for planning purposes and to increase the economic benefits accruing to the country, inasmuch as sound planning in any country is totally dependent on the availability of accurate data in all sectors and on an understanding of how the activities of different sectors are interrelated, so as to be able to formulate policies that will bring economic development based on existing resources.

4. With the advent of the age of the computer and its ease of remote information exchange over public and private networks, ESCWA, statistical organizations in a number of countries and certain specialized national agencies have started to concern themselves with the rapid developments taking place in electronic communication technology, and the race to create Web sites and pages for those organizations and agencies on the Internet has begun. As the Internet makes it easy to obtain a large quantity of information quickly from a variety of sources, either free of charge or by subscription, researchers in our region have come to rely on that information despite the inaccuracy, incomplete coverage and lack of authoritativeness that characterize it in most instances. However, statistical work requires considerable effort and care, and it has become imperative to provided basic data on all economic sectors to measure phenomena and their causes and effects, both quantitative and qualitative.

I. STATE OF SECTORAL STATISTICS IN NATIONAL STATISTICAL BULLETINS

5. It should be noted that most of the region's countries do not issue specialized bulletins on the different sectors, such as industry, agriculture, transport, tourism, energy, environment, etc. This has led the ESCWA Statistics Division to rely basically on national statistical abstracts in covering sectoral statistics. However, there exist sizeable differences in the nature of the data published in those abstracts with regard to content, comprehensiveness, definitions employed, units of measurement, periods covered and data availability. Hence it is difficult to acquire an integrated picture of the region from national statistics so as to be able to make comparisons among countries or between the region and other regions of the world.

6. There are many examples, despite differences in data and the manner in which they are apportioned, in the statistical abstracts of the ESCWA member countries, such as the mixing of industry, energy, mining and electricity. No statistical compendium, for example, comprises a special chapter on energy as an integrated productive sector, though some data on energy may be included under the heading of industry. Some countries, however, devote chapters containing limited data to petroleum or petroleum and industry, while electricity, in most countries, still comes under industry.

7. Regarding the industry sector, for example, the *Statistical Yearbook* published by Egypt is the only such abstract that includes industrial production data distributed according to activity, reviewing the production of the most important products in each industry. The statistical abstracts of Iraq (*Annual Abstract of Statistics*) and Jordan (*Statistical Yearbook*), on the other hand, review the results of the industrial survey, though they differ with respect to details. Most countries follow the International Standard Industrial Classification of All Economic Activities in their presentation of data on industrial enterprises, employees, wages and salaries paid, value of production, value of inputs into production, value of sales, capital formation and depreciation, etc. Such data differs from country to country, as do the related definitions and concepts. Some countries, moreover, follow the second revision of the International Standard Industrial Classification, while others follow the third revision. Finally, some countries do not publish any data at all on the industrial sector in their statistical abstracts.

II. SECTORAL STATISTICS MONITORED BY THE STATISTICS DIVISION OF ESCWA

8. In view of the foregoing facts relating to the reporting of sectoral statistics in national statistical compendia, the ESCWA Statistics Division made it a point to follow a number of major sectoral statistics in the member States, namely agriculture, fishing, industry, electricity, transport, communications and tourism, collecting data on the principal variables and indicators of those sectors and publishing them in separate chapters in the *Statistical Abstract of the ESCWA Region*, which is published yearly by ESCWA and contains statistics on the countries of the region. A new chapter on energy was added in the 2000 edition, statistics on the electricity sector and the oil and gas sector being included under that heading. ESCWA, in cooperation with the Arab Industrial Development and Mining Organization (AIDMO), gathers and publishes data on industry in all the Arab countries in the *Bulletin of Industrial Statistics for the Arab Countries*, a biennial publication for which data are collected by means of questionnaires sent out to all the Arab countries. The data thus obtained are included in a special database found on the Internet Web site. Other questionnaires, on large, medium and small industries, are to be developed and the data will be supplemented with data from the original questionnaire.

9. The Statistics Division relies, in its publications on sectoral statistics, on the data available in national statistical bulletins and abstracts, despite their paucity, and on numerous international sources, consisting in highly specialized databases. Annex I shows currently available information on the structure of the data for each sector, the most important indicators that relate to the sector, and the sources of the data.

10. The Statistics Division is currently working on developing traditional sectoral statistics within its programmes, adding further sectors, namely energy, water and environment. These new activities have been included in the programme of work for the biennium 2002-2003, during which the first issue of the *Bulletin of Energy and Environmental Statistics* is to be published and the first Expert group meeting on environmental statistics held.

III. DATABASES

11. The development of computer databases on sectoral statistics in the Statistics Division is still in its initial stages. Up to now, work on the agriculture, fishing, transport and communications and tourism sectors has not gone beyond monitoring the acquisition of some data from national and international sources, storing them in spreadsheets and publishing them in special chapters of the *Statistical Abstract* issued yearly by the Statistics Division. For the industry sector, an initial database was recently designed using MS-Access and Visual Basic and is still being revised and updated, while for the energy sector, which is one of the sectors newly added to the concerns of ESCWA, the preparation of a conceptual model has been completed as a first stage in the preparation of the required database. Regarding water resources and environmental indicators, which are new subjects that have received considerable attention, both internationally and regionally, in recent years, work within the framework of the activities of the Statistics Division is still in its infancy, and there exists considerable concern with creating specialized databases in those areas in cooperation with the Energy, Natural Resources and Environment Division of ESCWA.

12. The Statistics Division cooperates with other substantive divisions of ESCWA in identifying and defining data needs, and the Division undertakes to design the necessary forms for acquiring such data from the member States so as to enrich databases in a way that will redound to the benefit of the States and ESCWA through the issuance of various reports and studies. It is unquestionably the member States that must play the principal role in enriching those databases, by providing accurate information in a timely fashion.

IV. ENVIRONMENTAL INDICATORS TO BE MEASURED IN VARIOUS SECTORS

13. It has become extremely important to observe environmental impacts in the different sectors, to measure them and to derive indicators concerning them, as well as to compute the related costs, especially in view of the overall objective, i.e., sustainable development. All the ESCWA member States have participated in numerous global conferences and signed a number of international conventions on the preservation of the environment that call for measuring the environmental implications of vital, agricultural and industrial activities and minimizing the harm caused by them. Annex II lists the principal international conferences and conventions on the preservation of the environment, and the ESCWA member States that have participated in or acceded to them.

14. Most of the ESCWA member States have established national environmental agencies whose terms of reference include the follow-up and measurement of environmental impacts in the various sectors and efforts to preserve the environment in order to protect humanity and other living beings both now and in the future. However, there still exist many problems and obstacles that thwart the obtainment of integrated environmental statistics, the most important being the following:

(a) The fact that most statistical organizations have not established environmental statistics units for follow-up of this activity (collecting and storing the necessary data and publishing bulletins on environmental indicators);

(b) Weak cooperation between national environmental agencies and other governmental authorities (ministries, institutions, large industrial plants, etc.) that undertake to observe and measure changes taking place in the environment and obtain basic information and indicators regularly as those changes occur;

(c) A lack of adequate environmental observation systems in most of the member States, either because of the high capital costs involved or because of inherent weakness of the systems themselves.

15. Annex III lists the most important environmental indicators to which attention must be paid.

V. CONCLUSIONS

16. The conclusions reached are as follows:

(a) The ESCWA member States publish detailed statistics on certain sectors in their official statistical abstracts, the sectors differing from State to State according to the concerns of each;

(b) Some States are content with including some data on other sectors in the parts devoted to the sectors mentioned in the preceding paragraph, while the remaining States do not publish any data on those other sectors;

(c) The designations of the sectors differ in the statistical abstracts of the different member States;

(d) The sectoral statistics published in the statistical abstracts differ in terms of detail, comprehensiveness and standards used;

(e) It is difficult to make any comparison between countries or to form an integrated picture of the region in order to compare it with other regions of the world, so as to be able to develop balanced regional policies that meet the demands of globalization;

(f) Given these differences, it is difficult to create sectoral databases on the region;

(g) To date, the statistical compendia contain no data on water resources or environmental indicators, despite the participation of the ESCWA member States in many international conferences and conventions on the preservation of the environment and the concern of environmental agencies and many governmental and non-governmental organizations in the member States with those fields.

VI. RECOMMENDATIONS

17. With a view to the development of sectoral statistics at both the national and regional levels, the following recommendations are made:

(a) More attention should be paid to sectoral statistics and efforts should be made to standardize the content of all sectoral statistics published in the statistical abstracts of the countries of the region through the formation of specialized committees to follow up this question and ensure the following:

(i) The use of standard international definitions and their translation into Arabic, or preparation of other suitable definitions that are in agreement with them;

(ii) The seeking of guidance from international manuals and statistics for each sector and assistance from experienced specialized organizations, such as, for example, the Food and Agriculture Organization of the United Nations (FAO), for matters related to agriculture; the United Nations Industrial Development Organization, (UNIDO), for questions related to industry; the World Energy Council (WEC), for matters related to energy; the United Nations Environment Programme (UNEP), for environmental questions;

(iii) The design of standard forms for the collection of data on the different sectors in accordance with the definitions and classifications agreed upon;

(iv) The inclusion, in statistical abstracts, of new sections or chapters on areas related to environment, water resources and energy and the standardization of the designations used for other, more traditional, sectors;

(b) The statistical organizations and ESCWA should provide technical support to data-producing authorities within the various sectors, and the accuracy of such data should be ensured, as well as their agreement with recognized, internationally employed standards and concepts;

(c) Officers should be designated, either from within the statistical organizations or from the statistical departments in the different sectors belonging to the State, for liaison with the Statistics Division of ESCWA in order to facilitate procedures for the most expeditious and economical acquisition of the required sectoral statistics and to answer any enquiries in that regard;

(d) A greater number of persons from the central statistical organizations and statistical departments in the different sectors should participate in workshops and expert group meetings on sectoral statistics held by the ESCWA Statistics Division, with the sending authorities sharing in the travel and accommodation expenses of such participants;

(e) Central statistical organizations should be requested to establish divisions specializing in environmental statistics and indicators;

(f) Environmental indicators pertaining to the various activities of each sector and energy indicators measuring the amount and cost of energy used in those activities and the efficiency of that use should be computed and disseminated;

(g) Statistical organizations in the ESCWA member countries should immediately proceed to furnish the ESCWA Statistics Division with the requisite information for sectoral databases or to follow up the acquisition of data from the various sectoral authorities in the country.

Annex I

PRESENT STRUCTURE OF DATA AVAILABLE IN THE VARIOUS SECTORS, PRINCIPAL INDICATORS RELATING TO EACH SECTOR AND DATA SOURCES

A. AGRICULTURE AND FISHERY SECTOR

1. *Data*

(a) Total area, land area, area of arable land and permanent crops, irrigated area;

(b) Index numbers of agricultural production, mean per capita share of agricultural production, food production, mean per capita share of food production;

(c) Area and production of land cultivated with cereals;

(d) Area and production of land cultivated with pulses;

(e) Production of land cultivated with vegetables;

(f) Production of land cultivated with fruits;

(g) Area and production of land cultivated with industrial crops;

(h) Production of land cultivated with potatoes;

(i) Number of livestock;

(j) Milk, meat and egg production;

(k) Fish catches;

(l) Number of agricultural tractors and harvester-threshers.

2. *Indicators*

(a) Arable and permanent crop land as a percentage of total land area;
(b) Pattern of agricultural production in the ESCWA region;
(c) Productivity of cultivated area in the ESCWA region and in the world;
(d) Share of the ESCWA region in world production;
(e) Pattern of meat, milk and egg production in the ESCWA region;
(f) Share of the ESCWA region in world production of meat, milk, eggs and fish;
(g) Efficiency of agricultural tractor and harvester-thresher utilization.

3. *Sources*

(a) National statistical abstracts and bulletins of all member States;
(b) Food and Agriculture Organization (FAO) database;
(c) *Unified Arab Economic Report.*

B. INDUSTRIAL SECTOR

1. *Data*

The following data are published in accordance with the International Standard Industrial Classification of All Economic Activities, Second Revision/Third Revision:

(a) Number of establishments (mining industries, manufacturing industries, electricity, gas and water);

(b) Number of employees (mining industries, manufacturing industries, electricity, gas and water);

(c) Employee salaries and wages (mining industries, manufacturing industries, electricity, gas and water);

(d) Value of production (mining industries, manufacturing industries, electricity, gas and water);

(e) Value added (mining industries, manufacturing industries, electricity, gas and water);

(f) Principal products (mining industries, manufacturing industries).

2. *Indicators*

(a) Share of mining industries in gross domestic product;
(b) Share of manufacturing industries in gross domestic product;
(c) Mean wage in manufacturing industries.

3. *Sources*

(a) National statistical abstracts and bulletins of all member States;

(b) Industrial censuses and surveys in the Arab States;

(c) United Nations, ESCWA, *National Accounts Studies of the ESCWA Region*;

(d) United Nations Industrial Development Organization (UNIDO), Industrial Statistics Database;

(e) League of Arab States, Arab Industrial Development and Mining Organization (AIDMO), Industrial Statistics Database;

(f) *Unified Arab Economic Report.*

C. TRANSPORT AND COMMUNICATIONS SECTOR

1. *Data*

(a) Railways (length of operative railways, passengers, freight);

(b) Marine merchant fleets (dead weight, gross weight);

(c) Length of roads (paved and unpaved);

(d) Motor vehicles in use;

(e) Sea-borne shipping (vessel arrivals and departures, goods unloaded and loaded, passenger arrivals and departures);

(f) Air traffic (aircraft arrivals and departures, goods unloaded and loaded, passenger arrivals and departures);

(g) Telephone lines in use;

(h) Incoming and outgoing foreign mail.

2. *Indicators*

(a) Average number of vehicles per 100 persons;
(b) Average number of telephone lines per 100 persons.

3. *Sources*

(a) National statistical abstracts and bulletins of all member States;
(b) League of Arab States, *Statistical Abstract for Arab Countries*;
(c) League of Arab States, Statistical Bulletin for Telecommunications in Arab Countries;
(d) Gulf Cooperation Council, *Statistical Bulletin* and *Economic Bulletin*;
(e) Institute of Shipping Economics and Logistics, *Shipping Statistics Yearbook.*

D. TOURISM SECTOR

1. *Data*

(a) Number of hotels;
(b) Number of rooms;
(c) Number of beds;
(d) Number of tourists.

2. *Indicators*

Nights spent.

3. *Sources*

(a) National statistical abstracts and bulletins of all member States;
(b) World Tourism Organization, *Tourism Highlights*;
(c) World Tourism Organization, *Barometre des Voyages et du Tourisme*;
(d) World Tourism Organization, *Compendium of Tourism Statistics*;
(e) World Tourism Organization, Statistical Database;
(f) League of Arab States, *Statistical Bulletin for Tourism in Arab Countries*.

E. ENERGY SECTOR

1. *Data*

(a) Crude oil (reserves, production, exports, imports);

(b) Natural gas (reserves, total production, marketed production, exports via pipeline, liquefied natural gas exports);

(c) Petroleum derivatives (refining capacity, production, domestic consumption, net exports);

(d) Production (petroleum, natural gas, coal, electrical energy, total energy);

(e) Domestic consumption (petroleum, natural gas, coal, electrical energy, total energy);

(f) Exports (petroleum, natural gas, coal, electrical energy, total energy);

(g) Imports (petroleum, natural gas, coal, electrical energy, total energy);

(h) Electrical energy production according to type of generation (installed capacity, peak load, production);

(i) Electrical energy consumption according to economic sector.

2. *Indicators*

(a) Energy supplies in the ESCWA region;
(b) The share of the ESCWA region in world energy supplies;
(c) Per capita energy consumption in the ESCWA region and the world;
(d) Energy intensity in the ESCWA region;
(e) Level of energy self-sufficiency or energy dependency in the ESCWA member States;
(f) Expected life span of oil in the ESCWA region;
(g) Energy transformation efficiency in the ESCWA region;
(h) Share of the ESCWA region in world oil supplies;
(i) Per capita electrical energy consumption in the ESCWA member States;
(j) Energy conversion efficiency in the ESCWA region.

3. *Sources*

(a) National statistical abstracts and bulletins of all member States;

(b) United Nations, *Energy Statistics Yearbook*;

(c) Organization of Petroleum Exporting Countries (OPEC), *Annual Statistical Bulletin*;

(d) Organization of Petroleum Exporting Countries (OPEC), *Annual Statistical Report*;

(e) Oil and Gas Journal, *International Energy Statistics Sourcebook*, and weekly issues of the *Oil and Gas Journal*;

(f) Arab Petroleum Research Centre, *Arab Oil and Gas Directory*;

(g) British Petroleum Amoco, *Statistical Review of World Energy, 2000*, and previous issues;

(h) Cedigaz, *Natural Gas in the World, 1997 Survey*, and previous issues;

(i) Blackwell, *Oil and Energy Trends: Annual Statistical Review, 1999*, and previous issues;

(j) Arab Union of Producers, Transporters and Distributors of Electricity, *Arab Electricity* and *Electrical Energy Bulletin of the Arab Countries*;

(k) League of Arab States, Arab Industrial Development and Mining Organization, Electricity Statistics Database.

Annex II

PRINCIPAL INTERNATIONAL CONFERENCES AND CONVENTIONS ON THE PRESERVATION OF THE ENVIRONMENT

Country	Conferences and conventions								
	A	B	C	D	E	F	G	H	I
Bahrain	X	X		X	X				X
Egypt	X	X	X	X	X	X	X	X	
Iraq									X
Jordan	X	X	X	X	X	X		X	
Kuwait	X	X	X	X	X				X
Lebanon	X	X	X	X	X		X		
Oman	X	X	X		X				X
Palestine								X	
Qatar	X	X		X	X				X
Saudi Arabia		X		X	X	X		X	X
Syrian Arab Republic	X	X	X	X	X		X		
United Arab Emirates	X	X		X	X	X			X
Yemen	X	X		X	X			X	

A. Convention on Biological Diversity
Date: 5 June 1992
Place: Rio de Janeiro

B. United Nations Framework Convention on Climate Change
Date: 9 May 1992
Place: New York

C. United Nations Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa
Date: 17 June 1994
Place: Paris

D. Montreal Protocol on Substances that Deplete the Ozone Layer
Date: 16 September 1987
Place: Montreal

E. Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal
Date: 22 March 1989
Place: Basel

F. Convention on International Trade in Endangered Species of Wild Fauna and Flora
Date: 3 March 1973
Place: Washington

G. Convention for the Protection of the Mediterranean Sea against Pollution
Date: 16 February 1976
Place: Barcelona

H. Regional Convention for the Conservation of the Red Sea and Gulf of Aden Environment
Date: 14 February 1982
Place: Jeddah

I. Kuwait Regional Convention for Cooperation on the Protection of the Marine Environment from Pollution
Date: 24 April 1978
Place: Kuwait

Annex III

SOME IMPORTANT ENVIRONMENTAL INDICATORS

1. *Air pollutants*

(a) Suspended particlate (PM10);
(b) Carbon monoxide (CO);
(c) Sulphur dioxide (SO2);
(d) Nitrogen oxide (NO2);
(e) Low-elevation ozone (O3);
(f) Volatile organic compounds;
(g) Fume;
(h) Lead.

2. *Freshwater pollutants*

The following river, lake and groundwater indicators are measured:

(a) Dissolved oxygen content in water;
(b) Ammonia levels in water;
(c) Water temperature;
(d) Limpidity of water;
(e) Biological and chemical properties of water;
(f) Nitrates dissolved in water;
(g) Pesticidal water pollutants;
(h) Water-polluting environmental disasters;
(i) Percentage of the population enjoying supplies of clean, usable water;
(j) Water abstraction rate.

3. *Marine environment*

(a) Estuarine water quality;
(b) Principal pollutant concentrations (tin, lead, mercury, zinc, etc,);
(c) Bathing water quality;
(d) Fishery pollutants (mercury, copper, zinc, polychlorinated biphenyls (PCBs));
(e) Introduced pollutants;
(f) Oil spillage and operational discharges from ports.

4. *Land and soil*

(a) Vegetation cover (cultivated or cultivable, grasslands or pastures, fallow land, other quasi-natural land);

(b) Areas classified as reserves;

(c) Damage to classified reserves;

(d) Agricultural productivity;

(e) Uses of nitrogen;

(f) Pesticides uses;

(g) Percentage of change in areas subject to erosion;

(h) Percentage of change in soil creep at selected sites;

(i) Organic compound concentrations in superficial agricultural soil (phosphorus, potassium).

5. *Climatic change*

(a) Mean monthly temperature;
(b) Total emissions (possibility of global warming) according to sector, on a yearly basis;
(c) Natural levels of greenhouse gases (carbon dioxide, methane, nitrogen dioxide);
(d) Carbon dioxide emissions from electrical power plants.

6. *Energy*

(a) Fossil fuel depletion;
(b) Renewable energy capacities;
(c) Primary energy supplies according to energy type;
(d) Primary and final energy consumption according to energy type and consuming sector;
(e) Energy consumption and national income;
(f) General efficiency rate of thermal generation of electricity;
(g) Spillage occurring in the hydroelectric energy system;
(h) Energy use in the transport sector per vehicle and per kilometre travelled;
(i) Energy use in the commercial sector per employee;
(j) Domestic energy use per household;
(k) Energy use in industry as a percentage of income from industry.