

The Importance of Statistics and Databases in the Development and Dissemination of Industrial Information in the ESCWA Region

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Abstract

Industrial statistics play an important role in monitoring, analyzing and planning for economic development, when the statistics are reliable, detailed, updated and comparable, stored in data warehouse, disseminated, exchanged, and used to release relevant indicators. Industrial statistics and indicators, along with other sectoral and environment statistics, constitute the essential pillars for making strategic decisions in order to achieve sustainable development. In addition, the availability of accurate and updated data and information on industry is as a key factor for production improvement and industrial development. This paper provides an overview of the development of industrial statistics and databases available at the regional level, and in particular by ESCWA and other international and regional organizations. Also, it presents the importance of cooperation among the organizations and with the concerned ministries, thus contributing to capacity building of the Arab countries in the area of industrial statistics development. The paper also provides methodologies for industrial data collection through surveys, administrative records, censuses, and refers to the importance of implementing the recommendations and the application of international classifications in order to perform accurate comparisons of information in the framework of international cooperation among countries in the region and the world, and especially international recommendations on industrial statistics for 2007 issued by the United Nations Statistics Division -in New York-after discussion with the representatives of States on expanding the coverage of economic activities; the adoption of the International Standard Industrial Classification of all economic activities (ISIC IV) and Central Product Classification (CPC Ver.2) and on updating industrial statistics definitions. d the data that must be collected and disseminated at the international level and which can be used as reference in setting priorities for industrial statistics on national and regional levels. The paper also discusses the need to increase investments in information technology and to take advantage of the opportunities available from the rapid development of industrial information exchange for costs reduction, production increase, accelerated submission of the product to market and improvement of the quality of services, and finally, the need to develop networks for industrial information exchange in all Arab countries.



ملخص

2007 - بعد المناقشة مع ممثلي الدول حول توسيع تغطية الأنشطة الاقتصادية؛ بالإضافة إلى اعتماد التصنيف الصناعي الدولي الموحد لجميع الأنشطة الاقتصادية وتحديث تعريفات الإحصاءات الصناعية (CPC Ver.2) (ISIC IV)



Outline

➤ PART I

- Statistical Highlights on Arab Region
- Importance of Industry Statistics Industry Statistics on ESCWA/Arab Region
- International Classification and Recommendation
- Indicators and Indices on Industry

➤ PART II

- Databases: UN and Regional (Information System for Indicators: ESIS)
- ICT and Industry
- Networks “Industrial Information Network”: Country examples
- Way Foreward

- 310 million (5% of the world population),
- \$1,067 billion of GDP (3% of global GDP), in 2005
- \$3,558 per capita income, in 2005
- 35% average share of the oil sector in Arab economies in 2004,
- 72% share of the group of major oil producers in total Arab GDP,
- Saudi Arabia, the United Arab Emirates (UAE), Algeria and Egypt, accounted for 60% of the combined GDP of Arab countries,
- 49 % contribution of industrial sectors in Arab countries to GDP,
- 39% contribution to GDP of mining industries and 10% of manufacturing.

- 667 billion barrels of oil reserves in 2005, 56% of the world's total,
- 53 trillion cubic meters of gas reserves, 30% of the world's total,
- 25 million barrels a day (mbd) of oil produced and 303 billion cubic meters (bcm) of gas in 2005 of the Arab oil exporting countries, accounting for 32% and 12% of the total global oil and gas production, respectively,
- 20.5 mbd of oil exports and 100 bcm of gas exports (43% and 15% of total oil and gas exports respectively).

Facts on Trade

- Concentration in exports (73 percent are energy/mining) and imports (79 percent are manufactures). Exports are natural resource intensive and value added is low.
- Developing service exports, the fastest growing component of world trade, is the critical element for the future of the Arab countries given its young and growing.
- Direction of Trade: Asia represents more than 52 percent of exports, while Europe about 50 percent of the imports of the Middle East.
- Trade represents about 3.5 percent of GDP. On average, intra Arab trade represents some 11 percent of the region's imports and some 8 percent of their exports.

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Industrial Statistics on ESCWA Region

القيمة المضافة للصناعات التحويلية بالأسعار الثابتة في منطقة الإسكوا (مليون دولار اميركي - سنة الاساس 2000)

Value Added of Manufacturing Industries at constant prices in the ESCWA region Mn USD (Base year=2000)

Country ⁽¹⁾	2001	2002	2003	2004	2005	2005/2001	البلد ⁽¹⁾
Bahrain	944	1,002	1,057	1,183	1,443	53%	البحرين
Egypt	18,676	19,111	19,465	20,329	21,539	15%	مصر
Iraq	258	235	168	235	...	...	العراق
Jordan	1,236	1,476	1,520	1,773	1,976	60%	الأردن
Kuwait	2,452	3,122	3,668	4,077	4,326	76%	الكويت
Lebanon	...	...	...	...	...	...	لبنان
Oman	1,421	1,613	1,752	1,844	2,042	44%	عمان
Palestine	484	479	368	461	460	-5%	فلسطين
Qatar	1,097	1,241	1,330	1,417	1,596	45%	قطر
K. of Saudi Arabia	19,041	19,701	21,103	22,592	24,220	27%	المملكة العربية السعودية
Syrian Arab Republic	683	758	637	3,209	2,846	317%	الجمهورية العربية السورية
United Arab Emirates	9,546	9,884	10,664	12,264	13,039	37%	الإمارات العربية المتحدة
Yemen	523	544	570	598	662	27%	اليمن
Total ESCWA ²	56,362	59,166	62,302	69,982	74,150	32%	مجموع الإسكوا

(1) Official exchange rate and / or IMF estimates.

(2) Excluding Lebanon for 2001-2004 and Lebanon and Iraq for 2005.
Source: National Accounts Studies of the ESCWA Region Issue 25, 2005

سعر الصرف الرسمي للدولار الأمريكي والوحدات مستوحاة من النقد الدولي.

(2) باستثناء لبنان لسنوات 2001-2004 ولبنان والعراق لسنة 2005



Industrial Statistics on ESCWA Region

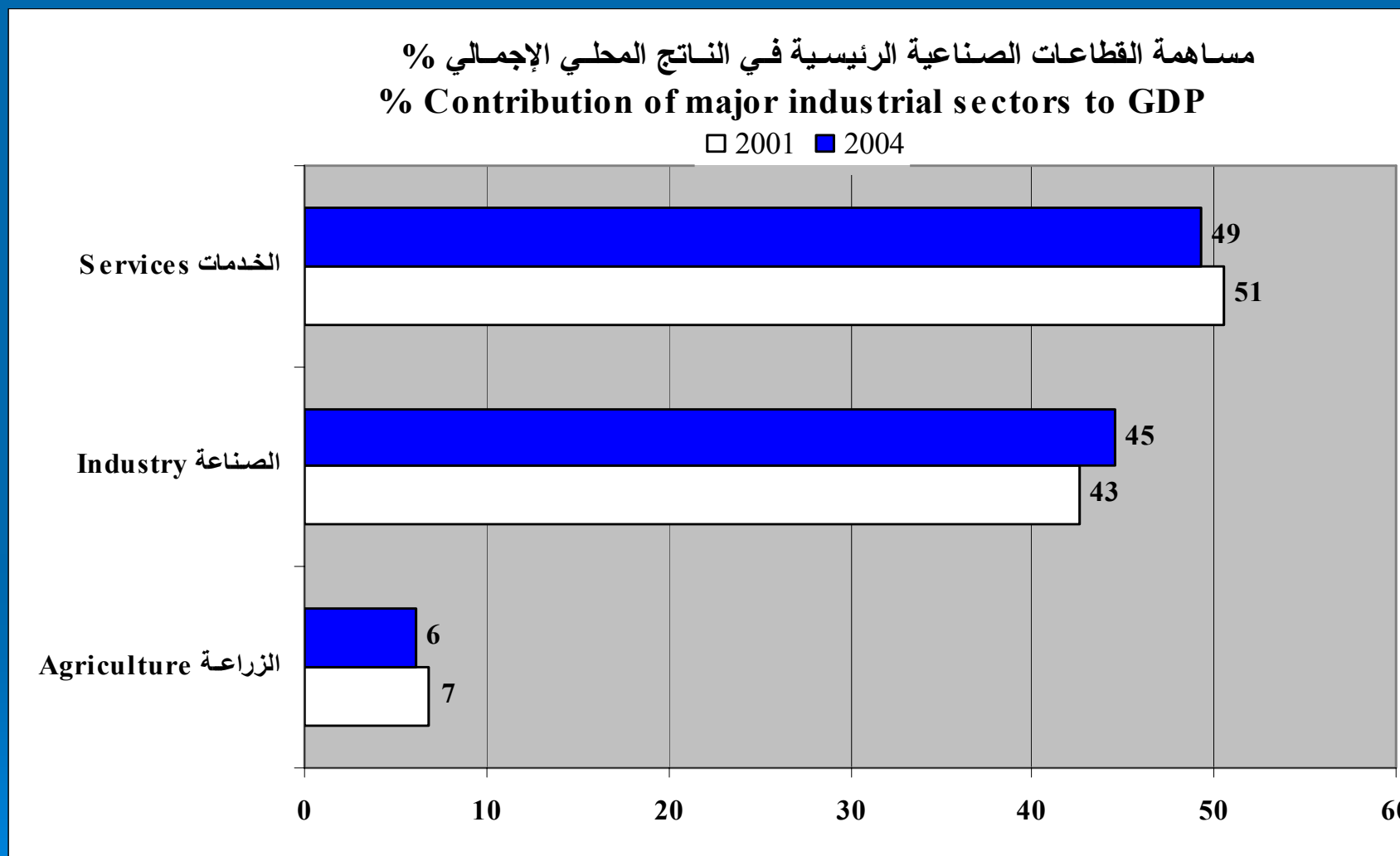
مساهمة القطاعات الصناعية الرئيسية في الناتج المحلي الإجمالي %

Contribution of major industrial sectors to GDP %

Country	2001			2004			البلد
	الزراعة	الصناعة	الخدمات	الزراعة	الصناعة	الخدمات	
Bahrain	0.73	42.27	57.00	0.47	39.09	60.44	البحرين
Egypt	14.68	30.99	54.33	14.44	31.31	54.25	مصر
Jordan	1.95	22.14	75.90	2.39	24.96	72.65	الأردن
Kuwait	0.45	54.03	45.52	0.43	59.83	39.74	الكويت
Lebanon	6.01	21.59	72.40	5.83	20.34	73.83	لبنان
Oman	2.05	54.27	43.68	1.70	55.11	43.20	عمان
Qatar	0.37	69.12	30.51	0.20	75.91	23.89	قطر
Saudi Arabia	5.20	51.23	43.57	3.96	58.86	37.18	السعودية
Syria	24.90	29.57	45.53	22.74	26.75	50.51	سورية
Emirates	3.47	52.13	44.40	2.64	54.57	42.79	الإمارات
Yemen	14.69	41.54	43.76	12.95	43.91	43.14	اليمن

Source: National Accounts Studies of the ESCWA Region Issue 25. 2005

Contribution of Economic sectors to GDP in ESCWA countries



Source: National Accounts Studies of the ESCWA Region Issue 25. 2005

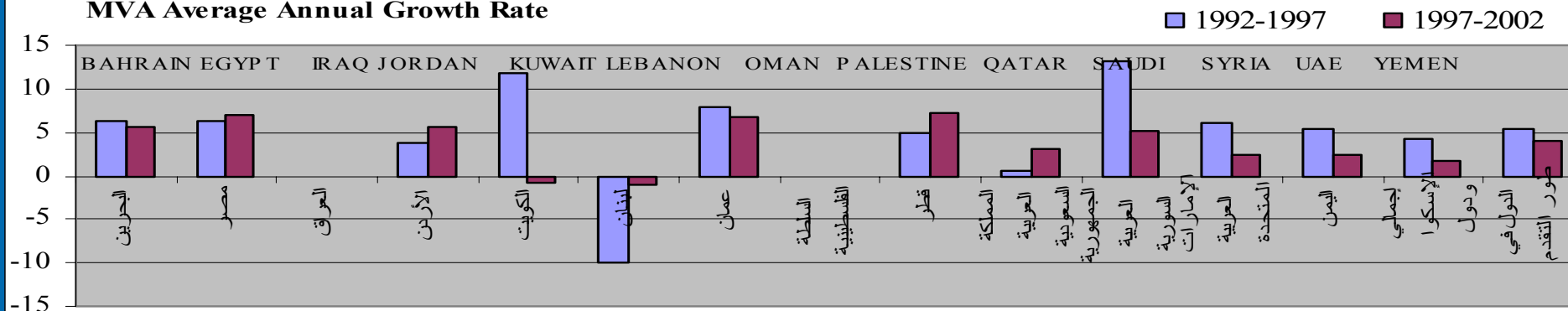


Value Added of Man. Ind in the Arab Region

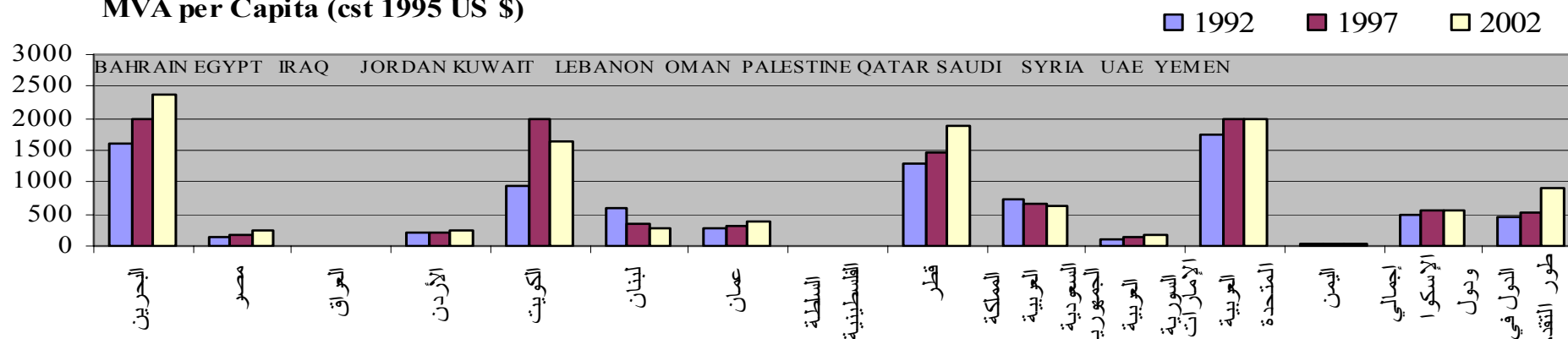
- The value added increased from 71 to 104 billion USD at current prices in Arab Region.
- The value Added in man. ind. current price contributed more than 15% in Jordan, Tunisia, Egypt and Morocco in 2002, and less than 15% in Lebanon

Value Added of Man. Ind (INDSTAT. 2006)

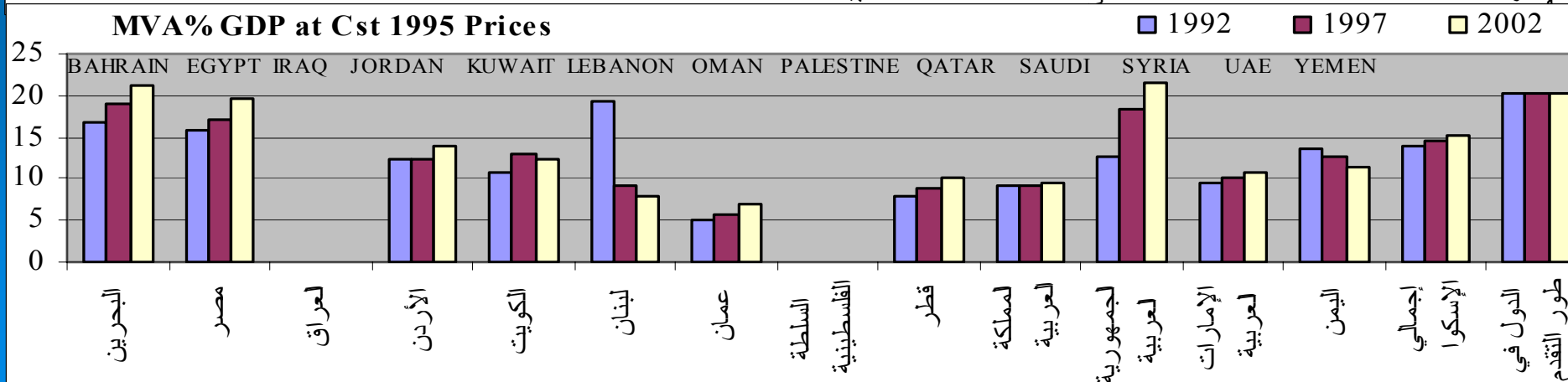
MVA Average Annual Growth Rate



MVA per Capita (cst 1995 US \$)



MVA% GDP at Cst 1995 Prices





Importance of Industry Statistics

- Industrial statistics play an important role in monitoring, analyzing and planning for economic development,
- Statistics should be reliable, detailed, updated and comparable, stored in data warehouse, disseminated, exchanged, and used to release relevant indicators,
- Industrial statistics and indicators, along with other sectoral and environment statistics, constitute the essential pillars for making strategic decisions in order to achieve sustainable development,
- The availability of accurate and updated data and information on industry is as a key factor for production improvement and industrial development and for assisting the business community in strategic decision making,
- Industry Statistics is the pre-requisite for Industrial Information Networking.



Statistical Operation for Industry Statistics

It is conducted in the following sequence of activities:

1. Planning and design of the survey
2. Data collection
3. Data compilation
4. Data analysis
5. Data dissemination



International Recommendations on Industrial Statistics for 2007 (UNSD)

- The scope of the industrial sector as per the International Standard Industrial Classification of All Economic Activities ISIC Rev. 4 (UN 2006) covers mining and quarrying (section B) manufacturing (section C), electricity, gas steam and air conditioning supply (section D); and water collection, treatment and supply, sewerage, waste collection and remediation activities (Section E).
- In 2007, the scope of the economic activities has been broadened (compared to 1983) in line with the broadening of scope of Section E in the ISIC Rev4 to include:
 - the activities of sewerage (div. 37),
 - waste collection, treatment and disposal activities; materials recovery (div. 38)
 - and remediation activities and other waste management services (div. 39).



International Recommendations on Industrial Statistics for 2007 (UNSD)

These international recommendations on industrial statistics, and similar international recommendations on other economic activities form a common integrated framework encompassing both the structural (annual information) and short-term business statistics for goods and services producing industries with the 1993 System of National Accounts Rev.1 as the overarching macroeconomic framework.



Status of Industry Statistics in ESCWA

- Manufacturing Industry Stats in ESCWA countries is based on ISIC2 or ISIC3 between 1990-2005, and relate to the number of establishments, number of employees, salaries and wages, output, and value added.
- In 2007, most ESCWA countries follow the International Standard Industrial Classification (ISIC III) (except Bahrain, UAE). (Egypt started Rev IV).
- There is a need for a unified industrial statistical system due to the lack of consistency, and for an increase in international cooperation to achieve industrial development.
- There is need to conduct frequent industrial surveys and censuses, extract the relevant indicators and indices
- There is also need for short-term (infrannual) on industrial sectors such as industrial production, turnover, revenues, orders, etc. Indicators used for business cycle monitoring and assessment.
- There is need for SMEs to develop extensive databases on their products and services to link them to other businesses and consumers inside and outside the country.



UN ESCWA on Industry and Collaboration with Organizations

- **ESCWA: Industry team existed Private sector and productivity team as part of the Sustainable Development Division, concentrates on medium and small enterprises development (the private sector)**
- **ESCWA and UNIDO: MOU 2001**
- **ESCWA and AIDMO: MOU 2003 and Executive Protocol 2007**
- **ESCWA and GOIC: MOU 2002**
- **ESCWA and UNSD: Collaboration on International Classification**



UN ESCWA Activities on Industry Statistics and Classification

1. Offer training workshops and expert group meetings
2. Bring International Methodologies and Definitions
3. Coordinate with teams in ESCWA, the region and other UN agencies
4. Develop and maintain Database: Data and indicators on water and environment and list of Indicators on Industry incorporated as a module in the database for the ESCWA region (ESIS) in collaboration with the Information and Communication Technology Division website: <http://esis.escwa.un.org>
5. Disseminates Statistical Publications (Abstract, Reports of Meetings, Methodologies)

<http://www.escwa.org.lb/divisions/scu/statabs26/index.asp>

<http://www.escwa.org.lb/information/pubdetails.asp>

6. ESCWA project on Trade Statistics and e-commerce



Since 1993, the UNIDO is the lead for industry statistics
UNSD dataset contained the following codes and indicators of industrial activity,

- | | |
|--|--|
| 01 Number of establishments | 17 Cost of purchased fuels and electricity consumed |
| 02 Number of enterprises | 18 Value added in factor values |
| 03 Average number of persons engaged | 19 Value added in producers' prices |
| 04 Average number of employees | 20 Value added |
| 05 Wages and salaries of employees | 21 Gross fixed capital formation - total |
| 06 Supplements to wages and salaries | 22 Gross fixed capital formation machinery and equipment |
| 07 Average number of operatives | 23 Value of stocks at end of period - total |
| 08 Wages and salaries of operatives | 24 Value of stocks at end of period - materials, fuels and supplies |
| 09 Hours worked by operatives | 25 Value of stocks at end of period - work in progress |
| 10 Days worked by operatives | 26 Value of stocks at end of period - finished goods |
| 11 Quantity of electricity consumed | 27 Index numbers of industrial production |
| 12 Output in factor values | |
| 13 Output in producers' prices | |
| 14 Output | |
| 15 Cost of goods and industrial services consumed | |
| 16 Cost of materials and supplies consumed | |

UNIDO-INDSTAT4-2003 ISIC Rev3

Example Oman-ISIC rev3, 2002

Tablecode	CountryCode	Year	IsicCode	Value	Tab.DefCode	Source	Update Year
Number of establishments	512	2000	151	32	1	1	2002
Number of establishments	512	2000	1511	6	1	1	2002
Number of establishments	512	2000	1512	17	1	1	2002
Number of establishments	512	2000	1513	5	1	1	2002
Number of establishments	512	2000	1514	4	1	1	2002
Number of establishments	512	2000	1520	6	1	1	2002
Number of establishments	512	2000	153	9	1	1	2002
Number of establishments	512	2000	1531	5	1	1	2002
Number of establishments	512	2000	1532	0	1	1	2002
Number of establishments	512	2000	1533	4	1	1	2002
Number of establishments	512	2000	154	94	1	1	2002

INDSTAT3 2003 ISIC Rev.2 - Data Selection

File Data Help



Countries		ISIC Categories	
For Selection:	Selected:	For Selection:	Selected:
Mozambique		300 Total manufacturing	
Myanmar		311 Food products	
Namibia		313 Beverages	
Nepal		314 Tobacco	
Netherlands		321 Textiles	
Netherlands Antilles		322 Wearing apparel, except footwear	
New Zealand		323 Leather products	
Nicaragua		324 Footwear, except rubber or plastic	
Niger		331 Wood products, except furniture	
Nigeria		332 Furniture, except metal	
Norway		341 Paper and products	
Oman		342 Printing and publishing	
Pakistan		351 Industrial chemicals	
Panama		352 Other chemicals	
Papua New Guinea		353 Petroleum refineries	
Paraguay		354 Misc. petroleum and coal products	
Peru		355 Rubber products	
Philippines		356 Plastic products	
Poland		361 Pottery, china, earthenware	
Portugal		362 Glass and products	
Puerto Rico		369 Other non-metallic mineral products	
Qatar		371 Iron and steel	
Republic of Moldova		372 Non-ferrous metals	
Reunion		381 Fabricated metal products	

Years		Tables	
For Selection:	Selected:	For Selection:	Selected:
1963		Establishments	
1964		Employees	
1965		Wages and salaries	
1966		Output	
1967		Value added	
1968		Gross fixed capital formation	
1969		Female employees	
1970		Index numbers of industrial production	
1971			
1972			
1973			
1974			
1975			
1976			

➤ Annual business survey data

➤ Most countries carry out annual business surveys, supplementing them with censuses and with administrative sources. The OECD Statistics Directorate collects such data via a joint OECD/ [UNIDO](#) questionnaire and publishes them as [Structural Statistics for Industry and Services](#) (SSIS).

➤ For a wide range of variables, it presents manufacturing data at a very detailed level (4-digit) of [ISIC Rev. 3](#), as well as service sectors at the 3-digit level of ISIC.

OECD Indicators: Industry and Services

STAN database for Industrial Analysis

Production

Production (volume)

Intermediate inputs

Intermediate inputs (volume)

Value added

Value added (volume)

Labour compensation of employees

Wages and salaries

Total employment- Persons

Employees- Persons

Total employment- Full time equivalent

Employees- Full time equivalent

Hours worked

Gross fixed capital formation

Gross fixed capital formation (volume)

Gross capital stock (volume)

Net capital stock (volume)

Exports of goods

Imports of goods

Value added (basic prices)

Value added (producer's prices)

Consumption of fixed capital

Operating surplus and mixed income

All ISIC 4
sub-
categories

- ☐ GRAND TOTAL
- ☐ AGRICULTURE, HUNTING, FORESTRY AND FISHING
- ☐ Agriculture, hunting and forestry
- ☐ Fishing
- ☐ MINING AND QUARRYING
- ☐ Mining and quarrying of energy producing materials
- ☐ Mining and quarrying except energy producing materials
- ☐ TOTAL MANUFACTURING
- ☐ Food products, beverages and tobacco
- ☐Food products and beverages
- ☐Tobacco products
- ☐ Textiles, textile products, leather and footwear
- ☐Textiles and textile products
- ☐Textiles
- ☐Wearing apparel, dressing and dyeing of fur
- ☐Leather, leather products and footwear
- ☐ Wood and products of wood and cork
- ☐ Pulp, paper, paper products, printing and publishing
- ☐Paper and paper products
- ☐Publishing, printing and reproduction of recorded media
- ☐ Chemical, rubber, plastics and fuel products
- ☐Coke, refined petroleum products and nuclear fuel

MAIN CATEGORIES

Industrial production refers to the goods produced by establishments engaged in mining (including oil extraction), manufacturing, and production of electricity, gas and water. These are categories C, D and E of the International Standard Industrial Classification of All Economic Activities (ISIC Rev.3).



ESCWA

GOIG Industrial Market Intelligence Gulf Industrial Database



Data on Manufacturers, products, licensed industrial projects in GCC

- Over 4000 products
- Over 9000 Manufacturing Companies
- Over 3000 Licensed Companies

Search for Companies By Company Details

Company Name

Country ☒ SAUDI ☒ U.A.E. ☒ ALL ☒ KUWAIT ☒ OMAN ☒ QATAR

Company Status
LICENSE
OPERATIONAL
ALL

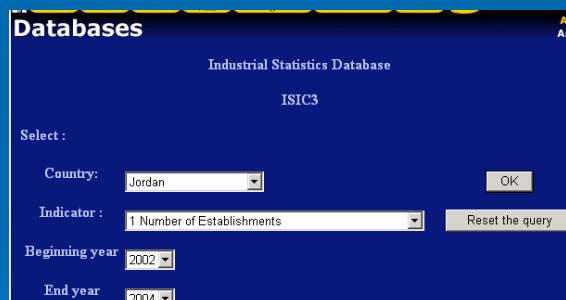
AIDMO Industrial Database

Industrial Statistics Database

Includes General Indicators for Industry in the Arab Countries Classified by (ISIC) code

- Number of Establishments,
- Number Employees,
- Wages, Salaries and paid allowances,
- Gross output, Value added,
- Input Values ,Change in stocks,
- Fixed Capital, value of Sales,
- Quantity of electricity Consumed

http://www.arifonet.org.ma/aidmo_us/main.htm



Databases

Industrial Statistics Database

ISIC3

Select :

Country:

Indicator :

Beginning year

End year



Common publication
AIDMO/ESCWA 2002

Country : Jordan, year 2002

ISIC	Activity	2002
15	Food products & beverages	3484
16	Tobacco products	5
17	Textiles	606
18	Wearing apparel; dressing & dyeing of fur	1951
19	Tanning & dressing of leather; manufacture of luggage, handbags,& footwear	214
20	Wood & products of wood & cork, except furniture	1138
21	Paper & paper products	79
22	Publishing & printing	362
23	Coke & refined petroleum products	1
24	Chemicals & chemical products	205
25	Rubber & plastic products	221
26	Other non- metallic mineral products	2438
27	Basic metals	42
28	Fabricated metal products, except machinery & equipments	3523
29	Machinery & equipment n.e.c	250
31	Electrical machinery & apparatus n.e.c	36
32	Radio, television & communication equipment	2
33	Medical, precision & optical instruments, watches & clocks	161
34	Motor vehicles, trailers & semi-trailers	76
35	Other transport equipment	26 ²
36	Furniture; manufacturing n.e.c	2932

ESCWA-Industry Module-ESIS

Category*	Sub-Category*	Sub-Category in Arabic
Manufacturing Industry	Number of establishments in manufacturing industries classified by ISIC	عدد المنشآت في الصناعات التحويلية حسب التصنيف الصناعي الدولي الموحد لجميع الأنشطة الاقتصادية
Manufacturing Industry	Number of employees in manufacturing industries classified by ISIC	عدد العاملين في الصناعات التحويلية حسب التصنيف الصناعي الدولي الموحد لجميع الأنشطة الاقتصادية
Manufacturing Industry	Wages and salaries paid to employees in manufacturing industries classified by ISIC	رواتب وأجور العاملين في الصناعات التحويلية حسب التصنيف الصناعي الدولي الموحد لجميع الأنشطة الاقتصادية
Manufacturing Industry	Output of manufacturing industries classified by ISIC	إنتاج الصناعات التحويلية حسب التصنيف الصناعي الدولي الموحد لجميع الأنشطة الاقتصادية
Manufacturing Industry	Value added of manufacturing industries classified by ISIC	القيمة المضافة للصناعات التحويلية حسب التصنيف الصناعي الدولي الموحد لجميع الأنشطة الاقتصادية

ESCWA-Industry Indicators-ESIS

Sample

Module	Category*	Sub-Category*	Indicator*	Indicator in Arabic	Sub-Category* Arabic
Industry Private Sector and Productivity	Manufacturing Industry	Number of establishments in manufacturing industries classified by ISIC	Number of establishments in manufacturing in Food, beverages and tobacco	عدد المنشآت في قطاع المواد الغذائية والمشروبات والتبغ	عدد المنشآت في الصناعات التحويلية حسب التصنيف الصناعي الدولي الموحد لجميع الأنشطة الاقتصادية
Industry Private Sector and Productivity	Manufacturing Industry	Number of establishments in manufacturing industries classified by ISIC	Number of establishments in manufacturing in Textile, wearing apparel & leather industries	عدد المنشآت في قطاع النسيج والملابس والمصنوعات الجلدية	عدد المنشآت في الصناعات التحويلية حسب التصنيف الصناعي الدولي الموحد لجميع الأنشطة الاقتصادية
Industry Private Sector and Productivity	Manufacturing Industry	Number of establishments in manufacturing industries classified by ISIC	Number of establishments in manufacturing in Wood & wood products	عدد المنشآت في قطاع الخشب والمصنوعات الخشبية	عدد المنشآت في الصناعات التحويلية حسب التصنيف الصناعي الدولي الموحد لجميع الأنشطة الاقتصادية
Industry Private Sector and Productivity	Manufacturing Industry	Number of establishments in manufacturing industries classified by ISIC	Number of establishments in manufacturing in Paper & paper products, printing & publishing	عدد المنشآت في قطاع الورق ومنتجاته والطباعة والنشر	عدد المنشآت في الصناعات التحويلية حسب التصنيف الصناعي الدولي الموحد لجميع الأنشطة الاقتصادية

Sample Preparation of Data to import to ESIS

Country	year	Value	Indicator in English	Indicator in Arabic
Egypt	2000	4,991	Food, beverages and tobacco	
Egypt	2000	2,108	Textile, wearing apparel & leather industries	
Egypt	2000	392	Wood & wood products	
Egypt	2000	345	Paper & paper products, printing & publishing	
Egypt	2000	705	Coke, refined petroleum products and nuclear fuel; Chemicals & chemical products, rubber and plastics	
Egypt	2000	911	Non-metallic mineral products except coal & petroleum	
Egypt	2000	179	Basic metal industries	
Egypt	2000	1,023	Fabricated metal products & machinery	
Egypt	2000	74	Furniture and others manufacture. industries	
Egypt	2001	5,170	Food, beverages and tobacco	
Egypt	2001	2,199	Textile, wearing apparel & leather industries	
Egypt	2001	425	Wood & wood products	
Egypt	2001	363	Paper & paper products, printing & publishing	
Egypt	2001	738	Coke, refined petroleum products and nuclear fuel; Chemicals & chemical products, rubber and plastics	
Egypt	2001	1,079	Non-metallic mineral products except coal & petroleum	
Egypt	2001	189	Basic metal industries	
Egypt	2001	1,055	Fabricated metal products & machinery	
Egypt	2001	77	Furniture and others manufacture. industries	
Egypt	2002	4,894	Food, beverages and tobacco	
Egypt	2002	1,633	Textile, wearing apparel & leather industries	
Egypt	2002	111	Wood & wood products	
Egypt	2002	298	Paper & paper products, printing & publishing	



Recommended Indicators of Industrial Activities (IIA)

- 1. Define IIAs in light of predetermined objectives**
- 2. Categorize into main domains**
- 3. Specify IIAs for each domain**
- 4. Lay down conceptual definitions and methods of computation or estimation for each IIA.**
- 5. Determine:**
 - - sources of data**
 - - Methods of collection**
 - - Periodicities**
 - - Tables**
 - - Coding systems**
- 6. Methods of presentation and analysis**
- 7. IT processing approaches:**
 - Data warehouse**
 - Database system**
 - Proactive inter-netting of database networks**



Main domains of IIAs

- Objectives
- Analysis of industrial performances
- Comparative analysis of industrial achievements
- Assessments of:
 - productivities
 - growth
 - technological advancement
 - employment, unemployment and underemployment
 - industrial occupational structures
 - economic and industrial structures and transformations
 - technological gaps
 - prices, costs, profits and efficiencies
 - marketing
 - product qualities
 - product/project feasibilities
 - trade gains
 - trade deficits
 - trade structures
 - environmental impacts
 - ICT use



ICT and Industry

- Opportunities for Industrial Development are available because of the rapid advancements in the field of information and communication technology (ICT) and empowerment of groups and individuals to share knowledge.
- ICT's role
 - Drives down costs,
 - improves productivity,
 - reduces time to market,
 - provides quality services the customers,
- Understanding the role of ICT resulted in significant investment in IT products



Industrial Information Networks

A: Industrial Information Networks Advantages

- 1- Promote business-to-business e-commerce within the country ,
- 2- Utilize IT to link businesses with international buyers, vendors, trade facilitation bodies and government institutions,
- 3- Provides updated business information,
- 4- Acts as a business opportunity window allowing for technology and investment partnerships,
- 5- Allows for upgrading the capacity of the national statistics body to provide timely and reliable industrial statistics,
- 6- Training in internationally recognized practices and methodologies for investment promotion and technology transfer,
- 6- Development of Industrial information network at the national level to convert domestic industry structures into knowledge base high value added structures information on in industrial activities.



Industrial Information Networks

B: Process/Mechanisms

- Ministries of Industry can provide and supervise various information infrastructure implementation services:
 - Implementation of industrial DB,
 - Development of application programs ,
 - Internet service,
 - Support information infrastructure for small and medium size enterprises,
 - Industrial information sharing and enhancement business of information distributions,
 - Integrating the different databases within the country,
 - Integrating the national databases at the regional level.

C: Countries Experiences

- Industrial Information Networks in Pakistan (UNIDO project) that cover all related national and international information sources into a "One-Stop-Shop" (OSS). www.iin.com.pk
- KDN: A Korean example on the implementation of Industrial Information Networks at the national level
www.kdn.com/english/service/itservice17_industry.jsp#brief



ESCWA

Industrial Information Networking in Canada

Institutional Organization

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Programs and Services

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Resources For

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The Department

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Welcome to Industry Canada

Strategis has merged with ic.gc.ca to provide a single point of entry to our programs and services. Discover how Industry Canada helps businesses thrive and consumers benefit from a fair marketplace, through competitiveness, innovation and growth. Access our services and information today!

What's New

- New Minister of Industry
- New Secretary of State (Small Business and Tourism)
- Global Business Forum 2007 — Keynote Address
- Japanese Company Pleads Guilty to Price Fixing
- Meadow Lake Joins the BizPal Network

[More of What's New...](#)

Most Requested Services

- Bankruptcy — Insolvency Name Search
- Canadian Company Capabilities
- Copyrights
- Federal Incorporation
- Industrial Designs
- Integrated Circuit Topographies
- Measurement Canada
- Mergers
- Patents
- Search Unclaimed Dividends
- Spectrum Management and Telecommunications
- Trade-marks

Quick Links

[Online Forms](#)

<http://www.ic.gc.ca/epic/site/ic1.nsf/en/home>



Networking Info intra-Database

Industry Canada Industrie Canada

Canada

Français | **Contact Us** | **Help** | **Search** | **Canada Site**

Home | **Site Map** | **What's New** | **About Us** | **Registration**

► **Company Directories** ► **Canadian Company Capabilities**

Canadian Company Capabilities

What is Canadian Company Capabilities?

- It is a centrally maintained current searchable database of 60,000 Canadian businesses
- It includes hundreds of specialized manufacturing, service and product specific business directories
- Each directory has powerful advanced search and reporting capacity
- Business profiles contain comprehensive information on contacts, products, services, trade experience, and technology
- Search results can be presented and printed in comprehensive, short or custom reports

How will it assist you?

Register
Be part of the database

Search
Find a company listing

Update
Modify your listing

Browse
Specialized directories

Registration Policy
No Endorsement
Disclaimer
Terms of Use
Help

<http://www.ic.gc.ca/epic/site/cac-rec.nsf/en/Home>



Networking Info inter-

Global Information Network for Small and Medium Enterprises

Welcome to the Global Information Network for SMEs

This Home Page will provide access to information on SMEs (Small and Medium Enterprises) all over the world, including Japan, U.S., Canada, France, Germany. We welcome participation from other countries and international organizations.

For details, please see ["How to participate?"](#)
[What is the "Global Information Network for SMEs"?](#)

SME Information from all over the world

G7 members

Canada

- Can be searched for information on Canadian companies
- Displays contact numbers for government and local business service centers
- Provides policy information related to investment and financing of SMEs
- Provides management know-how and methods of starting up SMEs
- Presents up-to-date information about the economy and trends related to SMEs

France

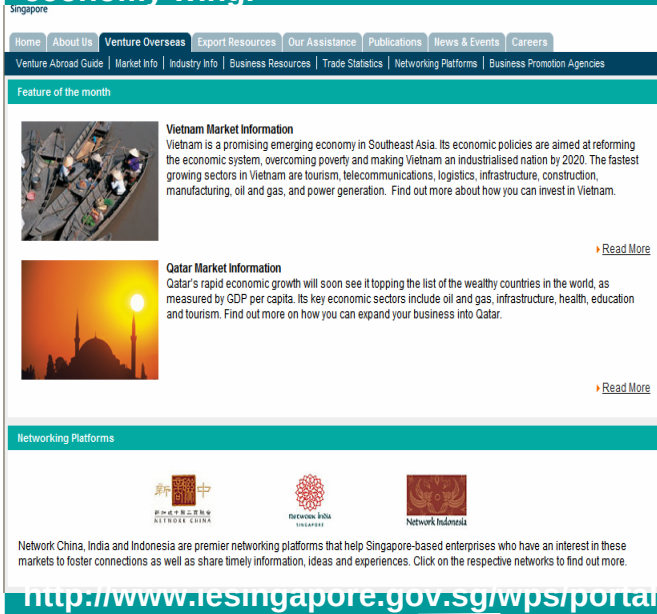
- Information

<http://www.gin.sme.ne.jp/>

<http://ww2.insis.com/>

Institutional Organization

International Enterprise (IE) Singapore: agency under the Ministry of Trade and Industry to develop Singapore's external economy wing.



The screenshot shows the IE Singapore website with a navigation bar including links like Home, About Us, Venture Overseas, Export Resources, Our Assistance, Publications, News & Events, and Careers. Below the navigation bar, there's a 'Feature of the month' section with two articles: 'Vietnam Market Information' and 'Qatar Market Information'. At the bottom, there's a 'Networking Platforms' section featuring logos for Network China, Network India, and Network Indonesia, with a brief description of their purpose.

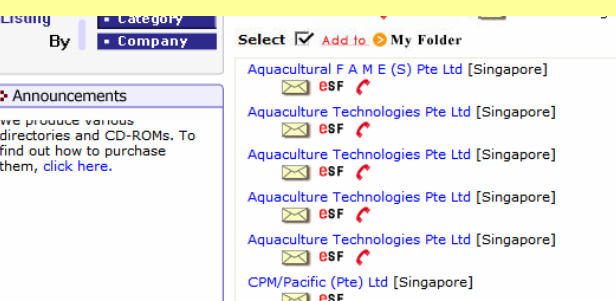
<http://www.iesingapore.gov.sg/wps/portal>

Networking Info Within

Singapore Information Services Pte Ltd (SIS) was formed in 1989 to undertake the important task of trade directory publishing to support the strategic role of the International Enterprise Singapore (IE)



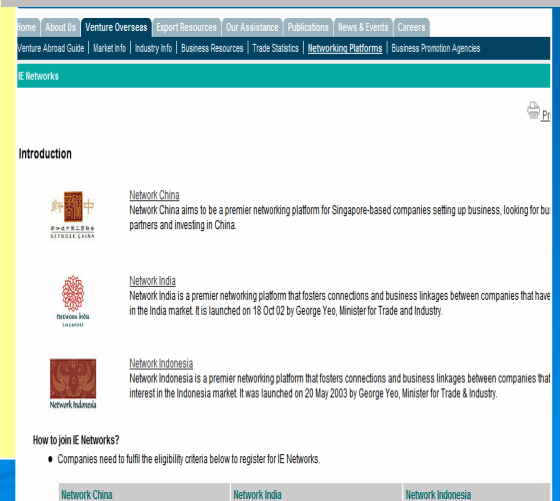
The screenshot shows the insis website, which is a comprehensive trade directory. It features a search bar, a category listing on the left, and a main content area with various product and service listings. The website is titled 'The International Event for Entrepreneurship, Business Opportunities & Intellectual Property Rights in Asia' and includes a shopping cart icon.



This screenshot shows a specific section of the insis website, likely a search results page. It displays a list of companies under the heading 'Aquaculture F A M E (S) Pte Ltd [Singapore]'. The list includes several entries for 'Aquaculture Technologies Pte Ltd [Singapore]' and 'CPM/Pacific (Pte) Ltd [Singapore]', each with a small icon and a link to 'Add to My Folder'.

<http://ww2.insis.com/>

Networking with Outside



The screenshot shows the IE Networks website, which provides information about the Network China, Network India, and Network Indonesia platforms. It includes an introduction section for each network, explaining their purpose and how they facilitate connections between Singapore-based enterprises and companies in the respective foreign markets. The website also features a 'How to join IE Networks?' section with a list of eligibility criteria.

Way Foreward

At the International level:
Standards-Methodologies-Support to countries
and to UN regional commissions and Programmes

At the Regional Level:
Regional Priorities, Specificities and Opportunities
in Sustained Industrial Development
Regional Network on Industrial Information
Cooperation among countries and regional organizations
Assistance to member countries in Industrial Development

At the country level:
National Priorities for Industrial Development
Develop Industry Statistics (Surveys, Census, Standards...)
Country Databases for Industrial Information
Country Industrial Information Network

At the enterprise level:
Enterprise Information Systems (Database)
Industrial Information Network within the Firm