



UNSD



الاسكوا
ESCWA

Workshop on Environment Statistics and Information for Sustainable Development in the Arab Region

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United Nations Economic and Social Commission for Western Asia

Statistical Frameworks for water data compilation

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Data Sources for Water and Sanitation

Census and Surveys for Official Statistics

- Population and Household Census: Source for Drinking Water, Type of Sanitation (Use of GIS and PDA Jordan)
- HH Income, Expenditure, and Consumption Survey
- Agriculture/Economic/business/industrial: cost of Water and Electricity combined (Need for intermediate and final consumption of water values , quantities, quality)
- Specialized/Ad Hoc Surveys: Mining, Water and Sewerage Utilities, Waste, Environment Expenditures
- DHS MICS

Scope, Coverage, Details National level for rural and urban population, subnational disaggregation by sex, age.

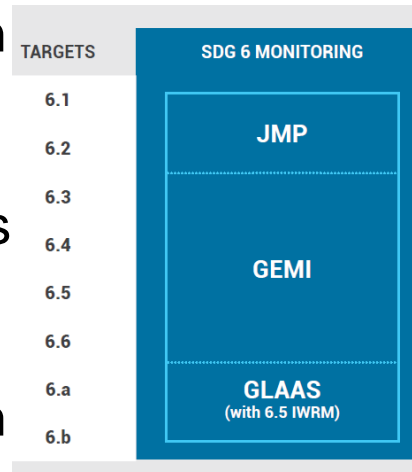
Administrative records: Civil and Business registers, water and electricity utilities, financial reports of government and companies, on supply and consumption, prices, investments,

Monitoring Systems and Modelling

Other Surveys

Multiple Indicator Cluster Survey (MICS) to monitor situation Children and Women (UNICEF)

Demographic and Health Surveys (DHS) household surveys provide data for a wide range of monitoring and impact evaluation indicators in the areas of population, health, and nutrition. (USAID i.e. Egypt 2014, 2015 by Ministry of Health



WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation (JMP) monitors universal sustainable access to safe water and basic sanitation, **uses the above surveys plus** World Health Surveys (WHS), [Living Standards Measurement Surveys \(LSMS\)](#) in addition to Census

Water Global Annual Assessment ([GLAAS](#))

WATER AND SANITATION			
MICS Indicator	Indicator	Description	Value
4.1	MDG 7.8 Use of improved drinking water sources	Percentage of household members using improved sources of drinking water	68.0
4.2	Water treatment	Percentage of household members in households using unimproved drinking water who use an appropriate treatment method	4.1
4.3	MDG 7.9 Use of improved sanitation	Percentage of household members using improved sanitation facilities which are not shared	32.9
4.4	Safe disposal of child's faeces	Percentage of children age 0-2 years whose last stools were disposed of safely	53.0
4.5	Place for handwashing	Percentage of households with a specific place for hand washing where water and soap or other cleansing agent are present	25.8
4.6	Availability of soap or other cleansing agent	Percentage of households with soap or other cleansing agent	55.4

Sample of Economic Survey Questionnaire

Table 4.1 Cost of Sales

Value in AED

جدول 4.1 تكلفة المبيعات

القيمة بالدرهم

1	2	1	الرمز Code
Item	القيمة Value	البيان	
Employee Compensation		تعويضات العاملين	1
Wages, salaries and Bonuses in cash		رواتب وأجور ومكافآت نقدية	1.1
Benefits granted to employees/workers		المزايا الممنوحة للعاملين	1.2
Raw Material		المواد الأولية المستخدمة في الإنتاج	2
Fuel, Gas and Oils		وقود ومحروقات وغاز	3
Water & Electricity		مياه وكهرباء	4
Wrapping & Packing Materials		مصاريق تعبئة وتغليف	5
Buildings Rents		إيجارات الأبنية	6
Machineries, Equipments, and Transportation Means Rentals		إيجارات الآلات والمعدات ووسائل النقل	7
Land Rentals		إيجارات الأراضي	8
Current Maintenance of Machineries & Equipments and Transport Means		الصيانة الجارية للآلات والمعدات ووسائل النقل	9
Current Maintenance of Buildings & Constructions		الصيانة الجارية للمباني والانشاءات	10
Transportation, Storing Goods & Cargo Services		خدمات النقل والتخزين والشحن	11
Computers & IT Services Charges		خدمات الحاسب الآلي ونظم المعلومات	12
Depreciation		استهلاك رأس المال الثابت	13
Government Taxes and Fees		الضرائب والرسوم الحكومية	14
Others; (not included above), and Attach a Detailed Statement,		أخرى; (غير المدرجة أعلاه), إرفاق كشف تفصيلي	97
Total Sales Cost		مجموع تكلفة المبيعات	99

Samples of PHC and Income Exp Surveys

التعداد العام للسكان والمساكن تشرين ثاني 2015
دائرة الإحصاءات العامة
استمارة عد السكان

4. خصائص المسكن		
401	نوع حيازة المسكن:	1 ملك لنفسه أو أحد أفرادها 2 مستأجر دون فروع 3 مستأجر مفروش 4 ملك لأحد الأقارب 5 مقبل عمل 6 دون مقبل 7 أخرى (حدد)
402	الايجار الشهري للسكن المستأجر بالدينار؟	الايجار الشهري
403	مدة إشغال المسكن المأهول (بالسنوات)؟	مدة إشغال المسكن
404	مساحة المسكن بالمتر المربع	المساحة
405	عدد الغرف التلي في المسكن؟	عدد الغرف الكلي
406	عدد غرف النوم في المسكن	عدد غرف النوم
407	المصدر الرئيسي لمياه الشرب؟	1 الشبكة العامة 2 فطرة داخل المنزل 3 صهريج 4 بئر جمع/ مياه أمطار 5 مياه محنية/ منقاة 6 بئر ارتوازي 7 نبع 8 أخرى (حدد)
408	نوع الصرف الصحي؟	0 لا يوجد 1 الشبكة العامة 2 حفرة امتصاصية 3 أخرى (حدد)
409	نوع التدفئة الرئيسي؟	0 لا يوجد 1 مركزية 2 مدفأة كاز / سولار 3 مدفأة كهربائية 4 مدفأة غاز 5 مكيف 6 حطب/ فحم 7 أخرى (حدد) 8 لا حاجة للتدفئة
410	هل تستخدم الأسرة الطاقة الشمسية في توليد الكهرباء في المسكن؟	1 نعم 2 لا

(تابع) الجدول الرابع

إنفاق الأسره على المسكن ومستلزماته

(٤ - ٤) قيمة المنفق على المياه والخدمات المتنوعة المتصلة بالمسكن خلال شهر البحث وخلال السنة المنتهية بنهاية فترة البحث

القيمة بالجنيه		الدليل	أوجه الإنفاق
سنة	شهر		
		٠٤٤١١	١ - إمدادات المياه:
		٠٤٤١١٠١	إستهلاك المياه
		٠٤٤١١٠٢	تركيب عداد المياه
		٠٤٤٢١	٢ - جمع القمامة:
		٠٤٤٢١٠١	مدفوعات الزبالة (*)
		٠٤٤٣١	٣ - الصرف الصحي:
		٠٤٤٣١٠١	جمع مياه المجاري والتخلص منها (ترشش)
		٠٤٤٤١	٤ - خدمات أخرى متصلة بالمسكن وغير مصنفة تحت بند آخر:
		٠٤٤٤١٠١	المدفوعات للبوابة
		٠٤٤٤١٠٢	المدفوعات للجنايني
		٠٤٤٤١٠٣	أقساط التأمين على المسكن (ضد الحريق، السرقة ، الخسائر الناجمة عن المياه ٠٠٠ إلخ)
		٠٤٤٤١٠٤	إشتراك اتحاد الملاك أو أى مصاريف مشتركة للمبنى ككل (**)
		٠٤٤	جملة إمدادات المياه والخدمات المتنوعة المتصلة بالمسكن (١+٢+٣+٤)

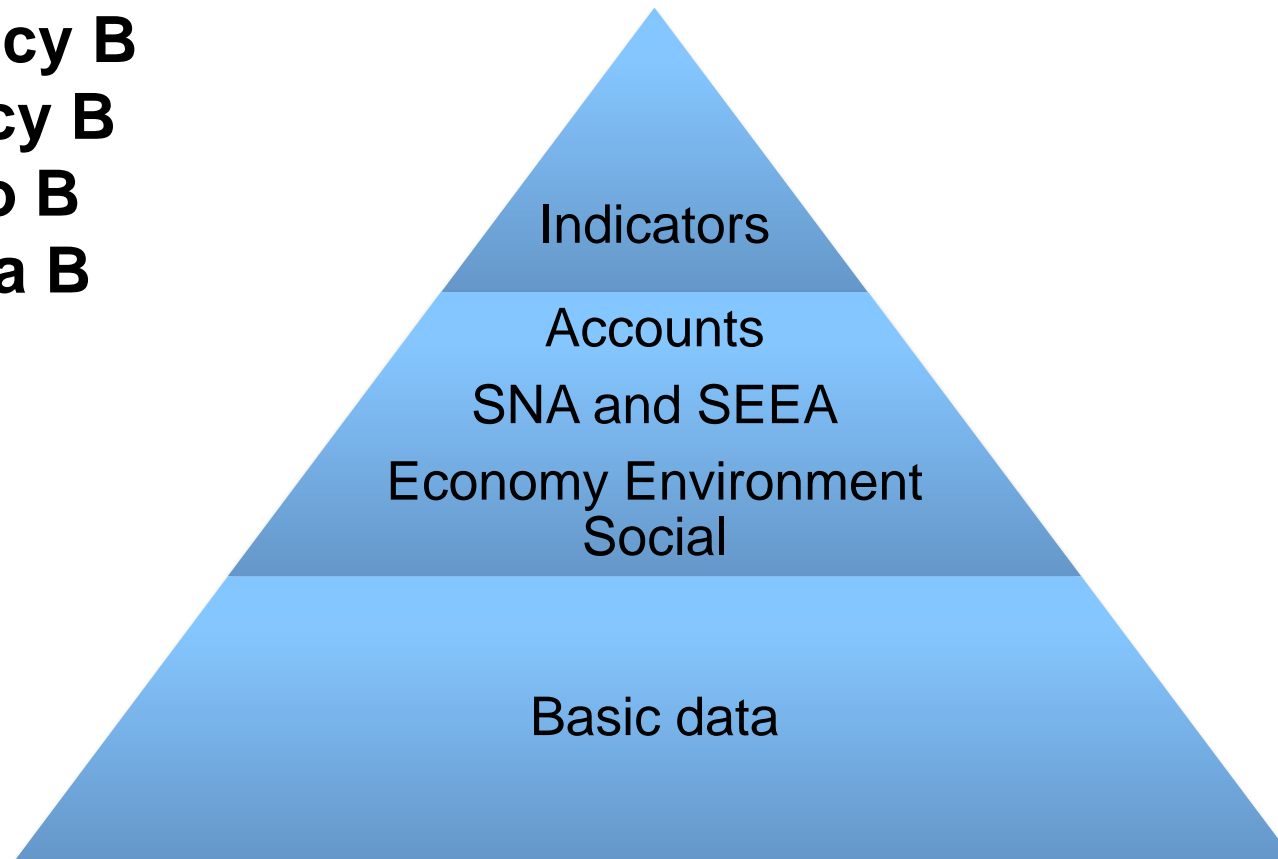
Income and Expenditure HH Survey Egypt

Integrated Policy and Integrated Statistics

Silo Approach

Agency A	Agency B
Policy A	Policy B
Info A	Info B
Data A	Data B

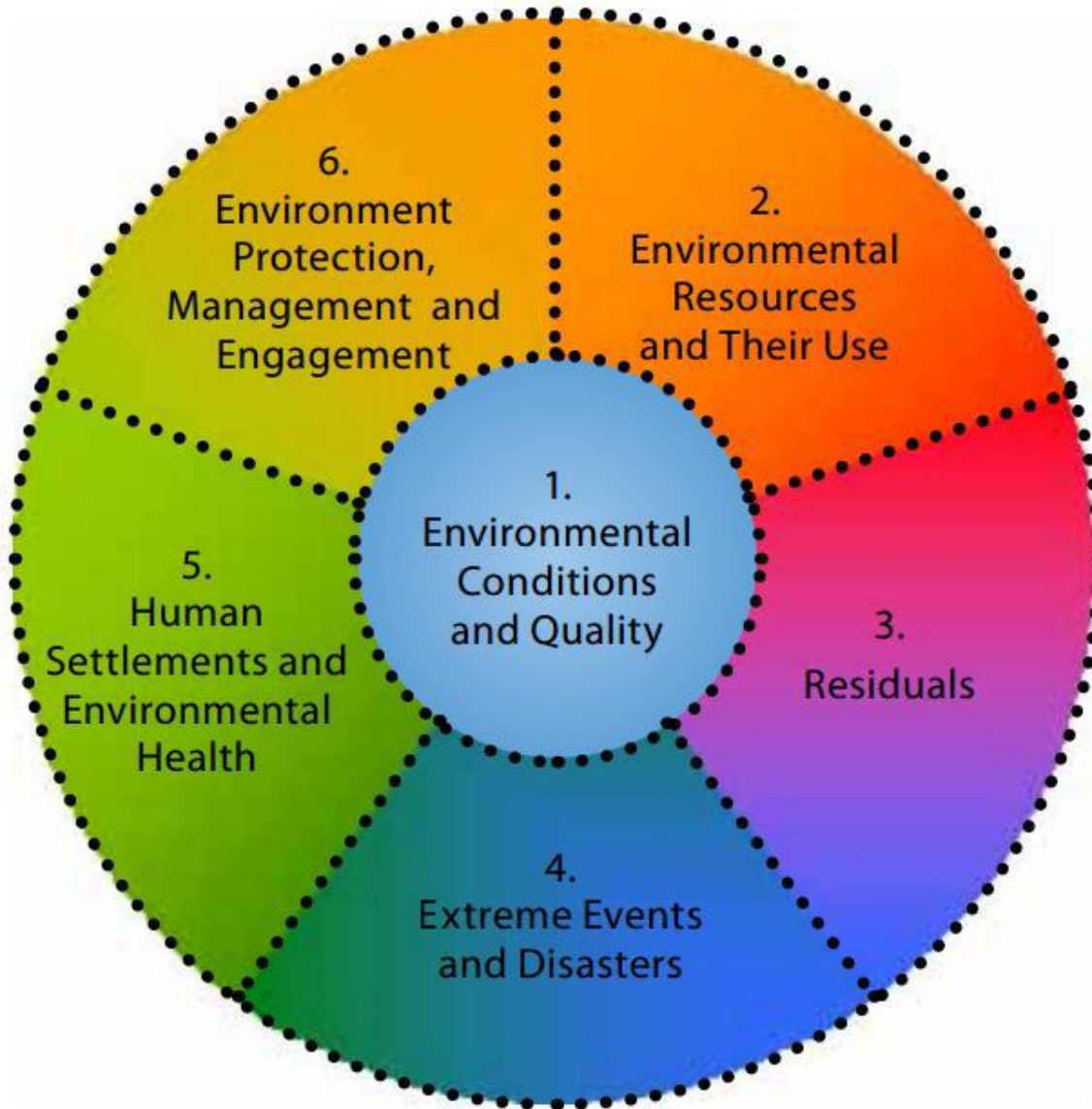
Integrated Statistics





Water Statistics and the FDES

Framework for Development of Environment Statistics



Water related statistics

Meteorology, climate
Hydrographic conditions
Ecosystems, biodiversity
Water quality
Water resources and use
Aquatic resources and use

Wastewater generation and management
Water related disasters

Water and sanitation
Water borne diseases
Water protection expenditure
Water related regulations and

Information system for integrated policy

Vision

National Development Goals
National Economic
Development Plan /
Planning and Budgetary
Processes

Supporting Evidence Integrated Information System

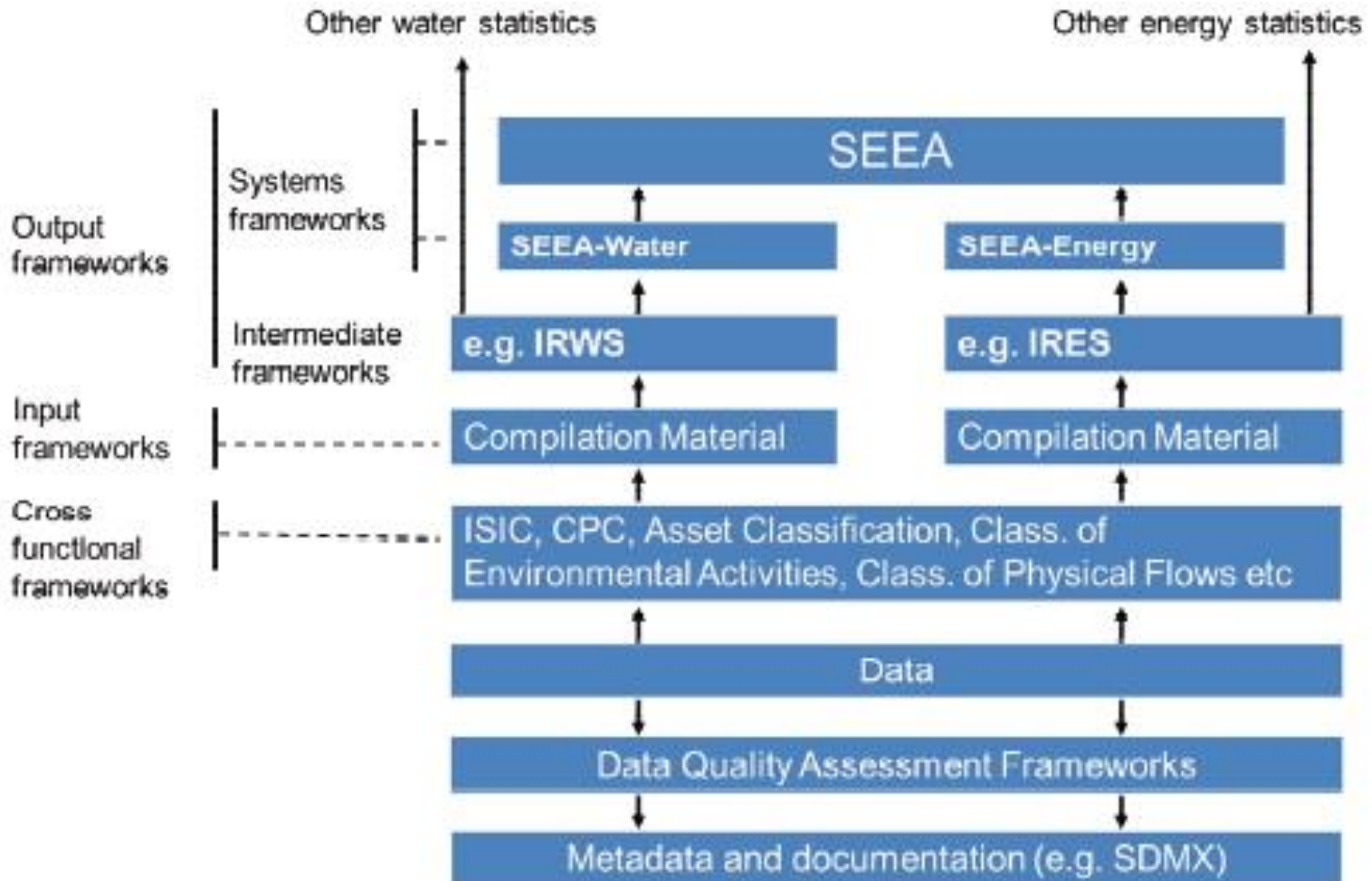
SNA and SEEA
*integrated economic,
environmental, and social
dimensions*

Sector Strategies and Plans

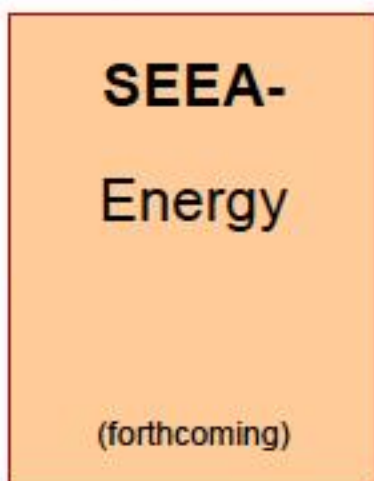
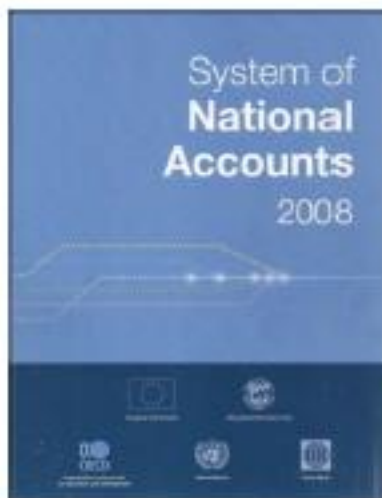
Sector statistics

Water Energy Trade Agriculture Tourism
Health Education Rural Development
Fisheries Forests Biodiversity
Oceans / Marine Resources
Climate Change Disaster Reduction

International Standards and Guidelines



Standard Framework for Compilation

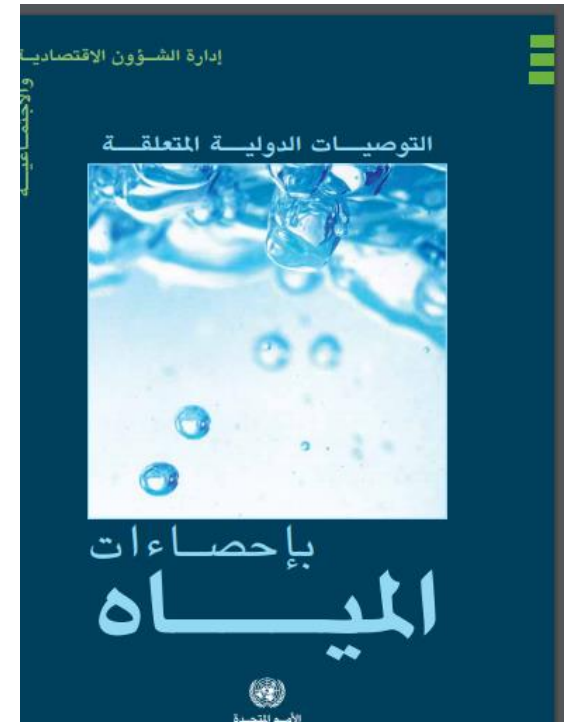


SEEA-Water

- The SEEA-Water is a conceptual framework for organizing hydrological and economic information in a coherent manner
- It can provide an information system for water policy by bringing together and organizing information relevant to four main quadrants of water policy
- Main accounts in SEEA-Water provide information on;
 1. Flows of water between the environment and economy
 2. Stocks of water resources (and changes in stocks)
 3. Environmental pressures on water stocks from economy
 4. The water economy

International Recommendations for Water Statistics IRWS and Compilation Guide

- provides guidance for the collection of coherent comparable water statistics
- principles, concepts and definitions
- Statistical units
- classifications,
- Water data items
- Data collection Strategy
- Data sources and methods
- Metadata and data quality



المفاهيم والأطر الرئيسية	المفاهيم والأطر الرئيسية
ألف - مقدمة	ألف - مقدمة
باء - المفاهيم الرئيسية	باء - المفاهيم الرئيسية
١ - المياه	١ - المياه
٢ - البيئة والمياه	٢ - البيئة والمياه
٣ - الاقتصاد والمياه	٣ - الاقتصاد والمياه
٤ - المجتمع والمياه	٤ - المجتمع والمياه
٥ - الإدارة للتكامل للموارد المائية	٥ - الإدارة للتكامل للموارد المائية
جيم - الموارد المائية الداخلية	جيم - الموارد المائية الداخلية
١ - الموارد المائية المتجددة وغير المتجددة	١ - الموارد المائية المتجددة وغير المتجددة
٢ - الموارد المائية المتجددة الداخلية	٢ - الموارد المائية المتجددة الداخلية
٣ - التدفق الداخلي	٣ - التدفق الداخلي
٤ - الموارد المائية المتجددة الخارجية	٤ - الموارد المائية المتجددة الخارجية
٥ - الموارد المائية المتجددة الطبيعية والتعلمية	٥ - الموارد المائية المتجددة الطبيعية والتعلمية
٦ - الموارد المائية القابلة للاستغلال	٦ - الموارد المائية القابلة للاستغلال
٧ - الصلة بين الموارد المائية وحسابات المياه	٧ - الصلة بين الموارد المائية وحسابات المياه
دال - نظام المحاسبة البيئية والاقتصادية في مجال المياه	دال - نظام المحاسبة البيئية والاقتصادية في مجال المياه
١ - الأرصدة (الأصول)	١ - الأرصدة (الأصول)
٢ - التدفقات	٢ - التدفقات
٣ - استهلاك المياه	٣ - استهلاك المياه
هاء - المراجع المكائنية والزمانية	هاء - المراجع المكائنية والزمانية
١ - المراجع المكائنية	١ - المراجع المكائنية
٢ - المراجع الزمانية	٢ - المراجع الزمانية

جيم - الوحدات الإحصائية للاقتصاد

١ - المؤسسات والمنشآت

٢ - الأسر المعيشية

٣ - مبدأ الإقامة

ال - تصنيف المنشآت

١ - التصنيف حسب الصناعة: التصنيف الصناعي الدولي الموحد، لجميع الأنشطة الاقتصادية، التتبع ٤

٢ - المنتجات والتصنيف المركزي للمنتجات، الإصدار ٢

٣ - الصناعات الحامة لإحصاءات المياه

٤ - تصنيف الوحدات حسب القطاعات المؤسسية

باء - خصائص الوحدات الإحصائية

١ - خصائص موارد (كُتَل) المياه الداخلية

٢ - خصائص الوحدات الاقتصادية

نود البيانات المتعلقة بالمياه

بنود بيانات المياه

Physical Data Items		0
Physical data items for inland water resource stocks		0
A. Inland water resources	The volume of water contained in surface water, groundwater, and soil water regardless of salinity levels within the territory of reference at a particular point in time. This includes water of all types of quality. In some cases brackish and saline inland water resources are used significantly for production and consumption activities, for example, for desalination, cooling or irrigation of salt resistant crops. Countries may disaggregate inland water resources into classes based on salinity level or other aspects of water quality.	
A.1. Surface water	The volume of water that flows over, or rests on the ground's surface within the territory of reference at a particular point in time. This includes water in artificial reservoirs, lakes, rivers, snow, ice and glaciers.	
A.1.1. Artificial reservoirs	The volume of water contained in man-made surface water bodies, used for storage, regulation and control of water within the territory of reference at a particular point in time.	
A.1.2. Lakes	The volume of water contained in generally large bodies of standing water occupying a depression in the earth's surface within the territory of reference at a particular point in time.	
A.1.3. Rivers	The volume of water contained in bodies of water flowing continuously or periodically in channels within the territory of reference at a particular point in time. This includes water flowing through artificial watercourses such as canals for irrigation, drainage, or navigation.	
A.1.4. Wetlands	The volume of water found in transitional areas where soils are frequently saturated or flooded and include swamps, marshes, playas and bogs for example within the territory of reference at a particular point in time.	
A.1.5. Snow, ice and glaciers	The volume of water found in a naturally frozen state (ice and ice crystals) measured in water equivalent within the territory of reference at a particular point in time. This includes seasonal layers of snow and ice on the ground surface and accumulations of ice (i.e. glaciers) which move slowly over land.	
A.2. Groundwater	The volume of water in porous and permeable underground layers, known as aquifers, that can yield significant quantities of water to wells and springs within the territory of reference at a particular point in time.	
Physical data items for environmental flows into and out of the territory		0
B. Inflow of water to a territory's inland water resources	The volume of water that flows into a territory's inland water resources consisting of precipitation and inflows from upstream territories per year.	
B.1. Precipitation	The volume of water that flows from the atmosphere to inland water resources via rain, snow, sleet, hail, dew, mist, etc. per year.	
B.2. Inflow of water from neighbouring territories	The volume of surface water and groundwater that moves into a territory of reference from other territories per year. This includes all water crossing into a territory and a portion of the water moving into artificial reservoirs, lakes, rivers or aquifers that lie along the territory's border.	
B.2.1. Inflow of water from neighbouring territories	The volume of surface water and groundwater that moves into a territory of reference, from other territories per year. This includes all water crossing into a territory and a portion of the water moving into artificial reservoirs, lakes, rivers or aquifers that lie along the territory's border.	
B.2.1.1. Secured through treaties	The volume of surface water and groundwater that moves into a territory of reference from other territories, or along its border, that is protected by formal agreements with upstream territories per year.	
B.2.1.2. Not secured through treaties	The volume of surface water and groundwater that moves into a territory of reference that is not protected by formal agreements with upstream territories per year.	
C. Outflow of water from a territory's inland water resources	The volume of water that flows out of a territory's inland water resources consisting of evapotranspiration from inland water resources and the outflow of surface water and groundwater to downstream territories and the sea per year. This excludes water and sewage exported (K.) as these are flows between economic units and ROW, after being abstracted from the environment.	
C.1. Evapotranspiration from inland water resources	The volume of water from land and water surfaces that enters the atmosphere by vaporisation of water into a gas and through evaporation and transpiration from plants per year.	



SEEA-Water: Informing the SDGs

Target Issue	Policy relevant information on SEEA-Water Account	
6.1 & 6.2 <i>Access to drinking water and sanitation</i>	Physical: Supply of water to households relative to economy, generation of wastewater by households and water-system characteristics affecting households (e.g. portion lost/treated) Monetary: expenditure on household water supply and sanitation (incl. sources of funding), governments expenditures and investment in fixed capital for water supply and sanitation	PSUT
6.3 <i>Water quality, treatment and re-use</i>	Pollution Release: pollutants by different economic activities (i.e. households and industry type) and the pathway of release Within-economy water cycle: flows of wastewater between economic units and to the environment, including flows for treatment and re-use	Emissions Accounts PSUT
6.4 <i>Water efficiency and sustainable withdrawals</i>	Water Use: Water abstraction and use by economic activity (households and industry sectors) Sustainability of withdrawals: Evolution of water stocks over time and sustainability of current pattern	PSUT Asset Accounts
6.5 <i>IRWM</i>	SEEA-Water is a tool for IRWM by bringing together different types of water information into one framework	
6.6 <i>Water-related ecosystems</i>	Biophysical information: on areas and changes in areas of various types of water-related ecosystems, including their extent, condition and provisions of services.	Ecosystems Account

Setting priorities for data collection

The Physical Water Flows and Stocks

Waterborne Pollution Accounts

The Sequence of Economic Accounts for Drinking Water

Supply and Sewerage

Water-Related Social-demographic Data Items

Data items required(see Excel Sheet)

Availability of estimates, Availability of reliable Statistics

Sources of data

Relevant agencies