United Nations Economic and Social Commission for Western Asia

40 YEARS

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ESCWA

6th meeting of the Expert Group on Disaster-related Statistics in Asia and the Pacific

April 23rd-25th

Bangkok, Thailand

Disaster-related Statistics in the Arab Region

Wafa Aboul Hosn, Ph.D.
Chief, Economic Statistics Section Statistics Division
UNESCWA
aboulhosn@un.org

Climate Change-Related Statistics in the Arab Region A Proposed Set of Indicators Special Issue of the Compendium of Environment Statistics in the Arab Region 2017

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Climate Change-Related Statistics in the Arab Region A Proposed Set of Indicators Special Issue of the Compendium of Environment Statistics in the Arab Region 2017

With a view to improving climate change-related statistics collected by national statistical offices (NSOs) in the Arab region, this report proposes a set of climate change-related indicators for compilation by all countries in the region. The set has been chosen to be relevant to the region, not so large as to be burdensome to compile, feasible given existing data and methods and consistent with international recommendations in this area. The indicators are summarized in a table at the end of the report.

List of CC Proposed Indicators

Countries' concerns and comments on original List

The Scope of Mitigation and Adaptation were considered more important than Emissions Scope

Concerns about indicators related to fossil fuels and per capita indicators, as those indicators did not reflect "the real picture" in Gulf countries. ESCWA however suggested keeping fossil fuel indicators for global reporting on climate change

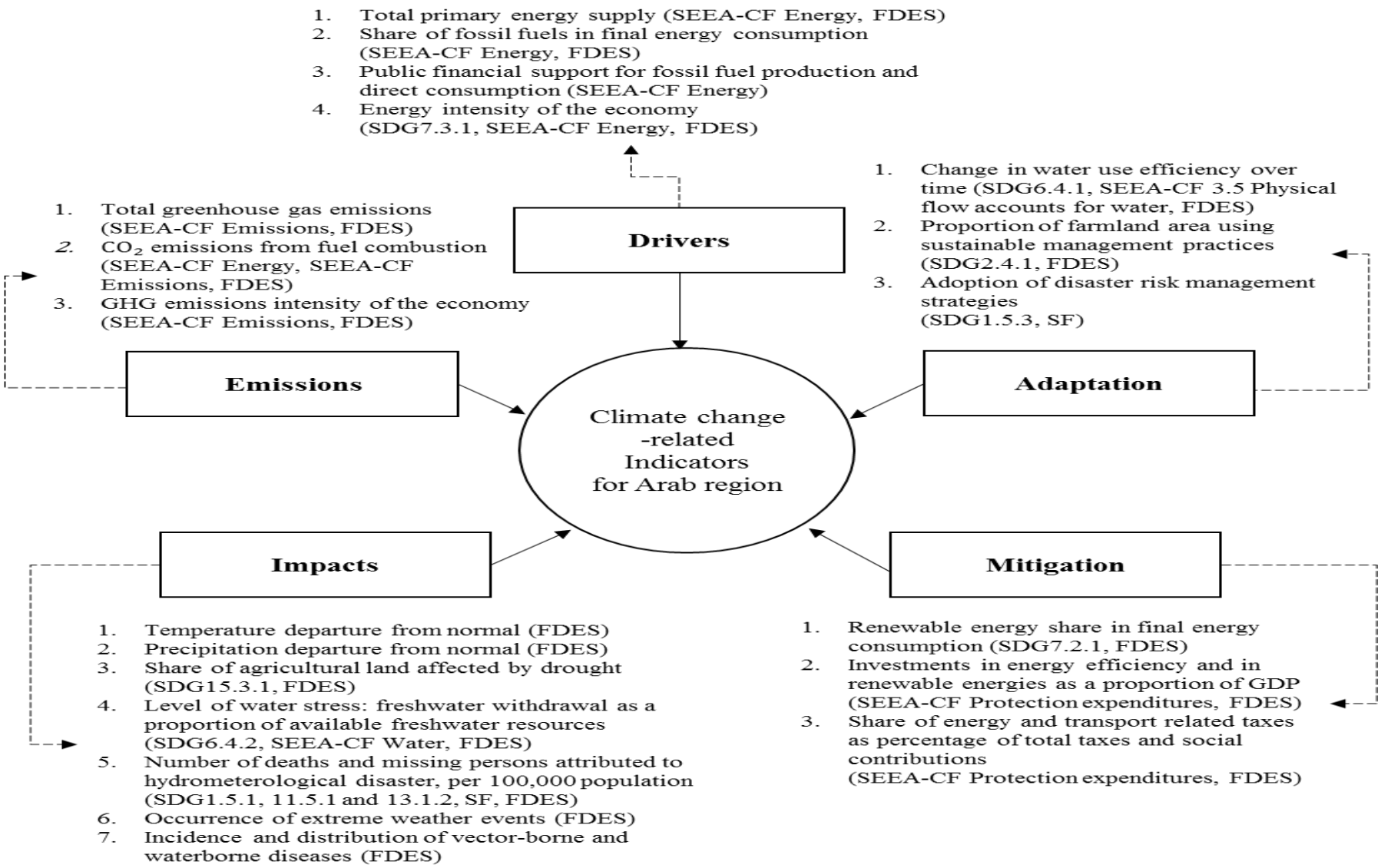
On impact-related indicators, floods and rising sea and river levels were of concern. Consequently, ESCWA included in the revised list under 'impacts' a new indicator on "Occurrence of extreme weather events" (table 5, indicator 13), and the effects of those events such as desertification, drought, floods, landslides, storm surge, soil erosion, and saline water intrusion.

On "Incidence and distribution of vector-borne diseases" it was suggested to include waterborne diseases, as the risks in Arab countries were clearly documented

Proposed Indicators Related to Climate Change for the Arab Region

Area	Nbr.	Energy Related	SDG	Indicator	Rationale
Impacts	8			Temperature Departure From Normal	Departures of temperatures from historical normals are a means of tracking change in temperature over time. Surface air temperature is considered by the World Meteorological Organization-Global Climate Observing System as an Essential Climate Variable.[1]
	9			Precipitation Departure From Normal	Departures of precipitation from historical normals are a means of tracking change in precipitation over time. Precipitation is considered by the World Meteorological Organization-Global Climate Observing System as an Essential Climate Variable.[2]
	10		15.3.1	Share Of Agricultural Land Affected By Drought	Changes in precipitation patters associated with climate change are expected to lead to increased drought in the region (Verner, 2012).
	11		6.4.2	Level Of Water Stress: Freshwater Withdrawals As A Share Of Renewable Freshwater Resources	Changes in precipitation as a result of climate change will change the availability of freshwater resources. Water is a key resource in the Arab region.
	12		1.5.1 11.5.1 13.1.2	Number Of Deaths And Missing Persons Attributed To Hydrometeorological Disasters, Per 100,000 Population	Climate change is expected to increase global average surface temperatures, which is a particular concern in the Arab region where normal summertime temperatures are already high.
	13			Number Of Extreme Heat Events	Climate change is expected to increase global average surface temperatures, which is a particular concern in the Arab region where normal summertime temperatures are already high, resulting in desertification, drought, floods, landslides, storm surge, soil erosion, and saline water intrusion.
	14			Incidence And Distribution Of Vector-borne Diseases	Vector-borne disease transmission is expected to increase as a result of changes in temperature and rainfall patterns associated with climate change.

SURVEY OF ECONOMIC AND SOCIAL DEVELOPMENTS IN THE ARAB REGION 2017-2018



Data Validation on DRS
Need for More Official Statistics

- Need for focal points at countries at NDMAs to consult with their Central and Local statistical offices to compare and validate with socio economic official data
- Need for Regional Offices of UNISDR to coordinate with regional commissions Statistical Divisions on data compilation and validation of Regional Statistics

Official Statistics for DRS

- NSOs collecting official socio economic data
  - POPULATION DATA: PHH Census-Geospatial (Population numbers and Characteristics and locations Vulnerable people living in high risk natural environment)
  - Economic data: Establishment Census –GIS -National Accounts –Regional Accounts Concentration of Production
- ENVIRONMENT DATA: Meteorology-Climate- Natural Resources-NSOs (Satellite Imagery/Earth Observations/Land cover water and mineral resources, etc…)
- GOVERNMENT FINANCES STATISTICS: Expenditures-Budgets for Disaster risk and for disaster relief
- Maps of Infrastructure/Services/

Short-term relief objectives vs official quality data 4 planning

SDG database- DR Data Issues

1-In 2018, There were disasters in Kuwait, Jordan … due to Floods /Heavy Rain/Grizzle/Land Slides. Need for updated data for those countries. In general, Statistical offices don't get the first hand data, for example in Lebanon there is "Rescue Agency" who gets the claims and follows up.

2-Egypt data is available for only 2016 and 2017. That is very minimal for studying the trends and future risks.

Number of people affected by disaster (number)	818	Egypt	2016	17,180.0
Number of people affected by disaster (number)	818	Egypt	2017	20,587.0

Number of people affected by disaster (number)	887	Yemen	2005	1,458,397.0
Number of people affected by disaster (number)	887	Yemen	2006	2,016,775.0
Number of people affected by disaster (number)	887	Yemen	2007	1,237,376.0
Number of people affected by disaster (number)	887	Yemen	2008	3,023,348.0
Number of people affected by disaster (number)	887	Yemen	2009	851,346.0
Number of people affected by disaster (number)	887	Yemen	2010	1,985.0

Direct economic loss attributed to disasters (millions of current United States dollars)	887	Yemen	2006	4.2
Direct economic loss attributed to disasters (millions of current United States dollars)	887	Yemen	2007	22.1
Direct economic loss attributed to disasters (millions of current United States dollars)	887	Yemen	2008	9 1.9
Direct economic loss attributed to disasters (millions of current United States dollars)	887	Yemen	2009	1.9
Direct economic loss attributed to disasters (millions of current United States dollars)	887	Yemen	2010	3.1

SDG – database- DR Data Issues

3- For Yemen, The current war have catastrophic results. The data that is coming and will be collected will show the extent of damage. However, for older data 2005 to 2010 in the SDG database, the numbers look out of range (30 times higher than the next highest number i.e. Morocco) and not consistent with the economic loss for the same years. (see example below)

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Number of people affected by disaster (number)	818	Egypt	2017	20,587.0

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ESCWA SDG Environment Monitor

Goal

Goal 1. End poverty in all its forms everywhere

Target

1.5 By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental sho...

Indicator

Number of deaths and missing persons attributed to disasters, by hazard type (number)

Indicator

Country

All

Year

2005 2018

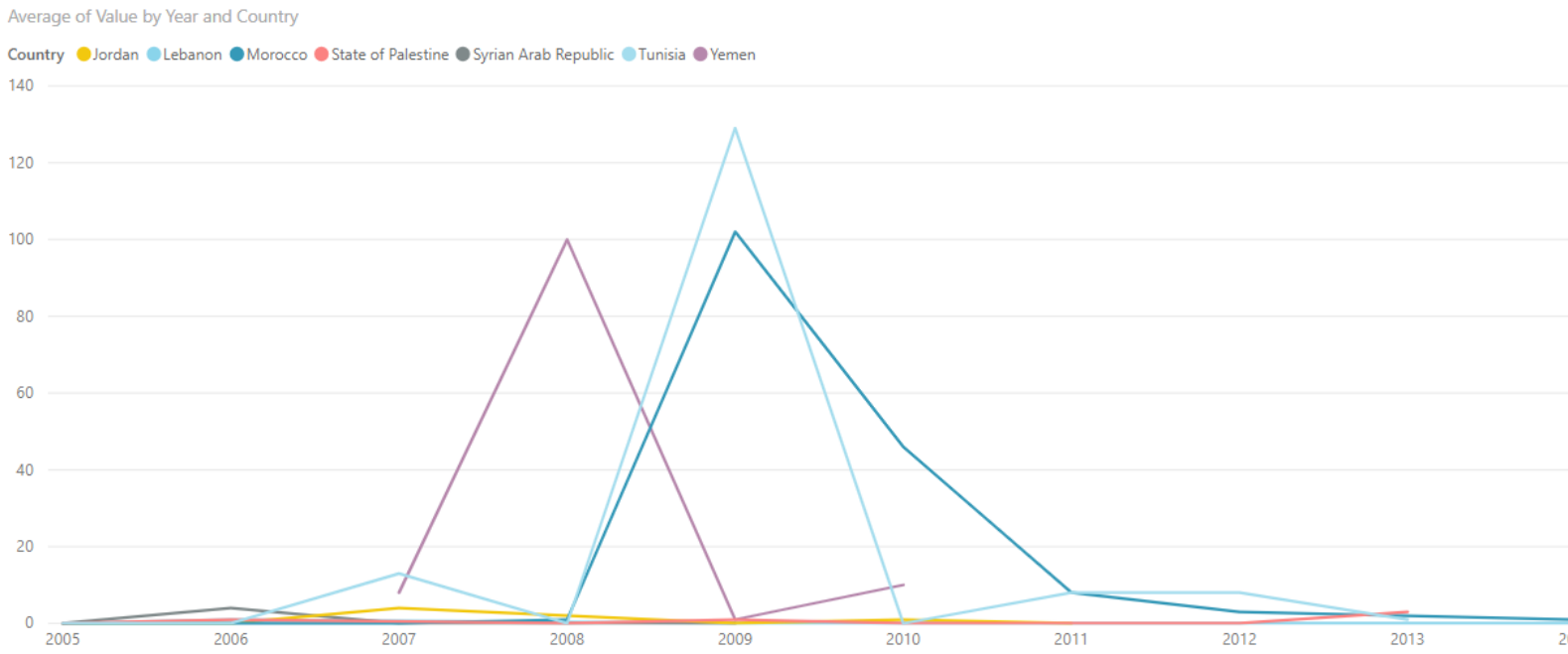
Hazard type

Flood

Location

All

Please choose a subgroup when selecting indicators subject to dissagregation



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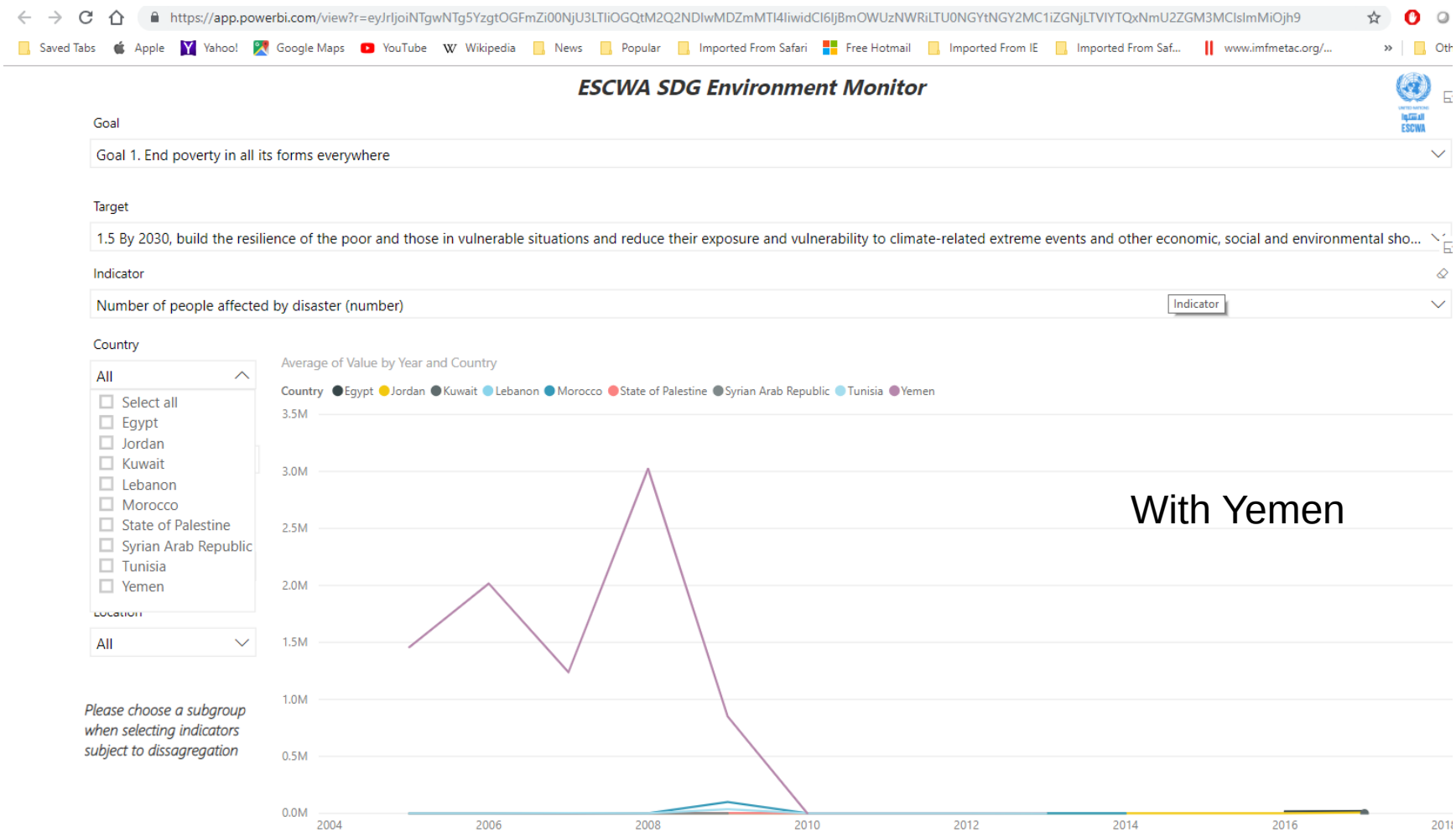
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Saved Tabs
Apple
Yahoo!
Google Maps
YouTube
Wikipedia
News
Popular
Imported From Safari
Free Hotmail
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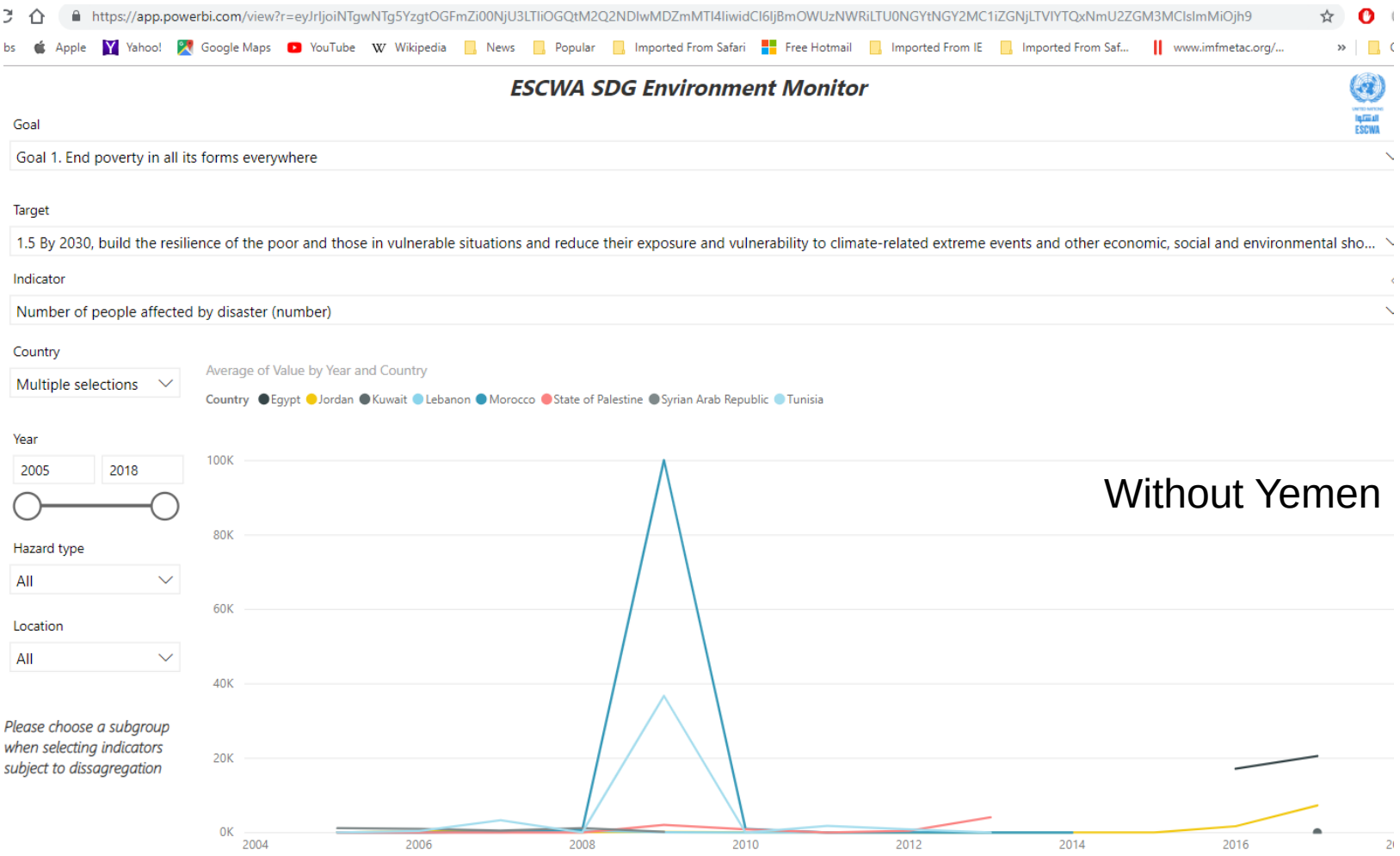
www.imfmetac.org/...
ESCWA SDG Environment Monitor
Goal
Goal 1. End poverty in all its forms everywhere
Target
1.5 By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental sho...
Indicator
Number of people affected by disaster (number)
Indicator
Country
All
Select all
Egypt
Jordan
Kuwait
Lebanon
Morocco
State of Palestine
Syrian Arab Republic
Tunisia
Yemen
All
Please choose a subgroup when selecting indicators subject to dissagregation
Average of Value by Year and Country
Country Egypt Jordan Kuwait Lebanon Morocco State of Palestine Syrian Arab Republic Tunisia Yemen
3.5M
3.0M
2.5M
2.0M
1.5M
1.0M
0.5M
0.0M
2004
2006
2008
2010
2012
2014
2016
With Yemen

ESCWA SDG Envi_Monitor



Recent Support on SEEA Implementation and FDES

Arab Working Group on Environment and Sustainable Development Indicators Third Meeting 13-15 March 2017 Amman, Jordan

- Consultative Meeting on the Implementation Framework for the Environmental Dimension of the 2030 Agenda in the Arab Region 18-21 September 2017.

Training on Statistical Frameworks to compile SDG Indicators

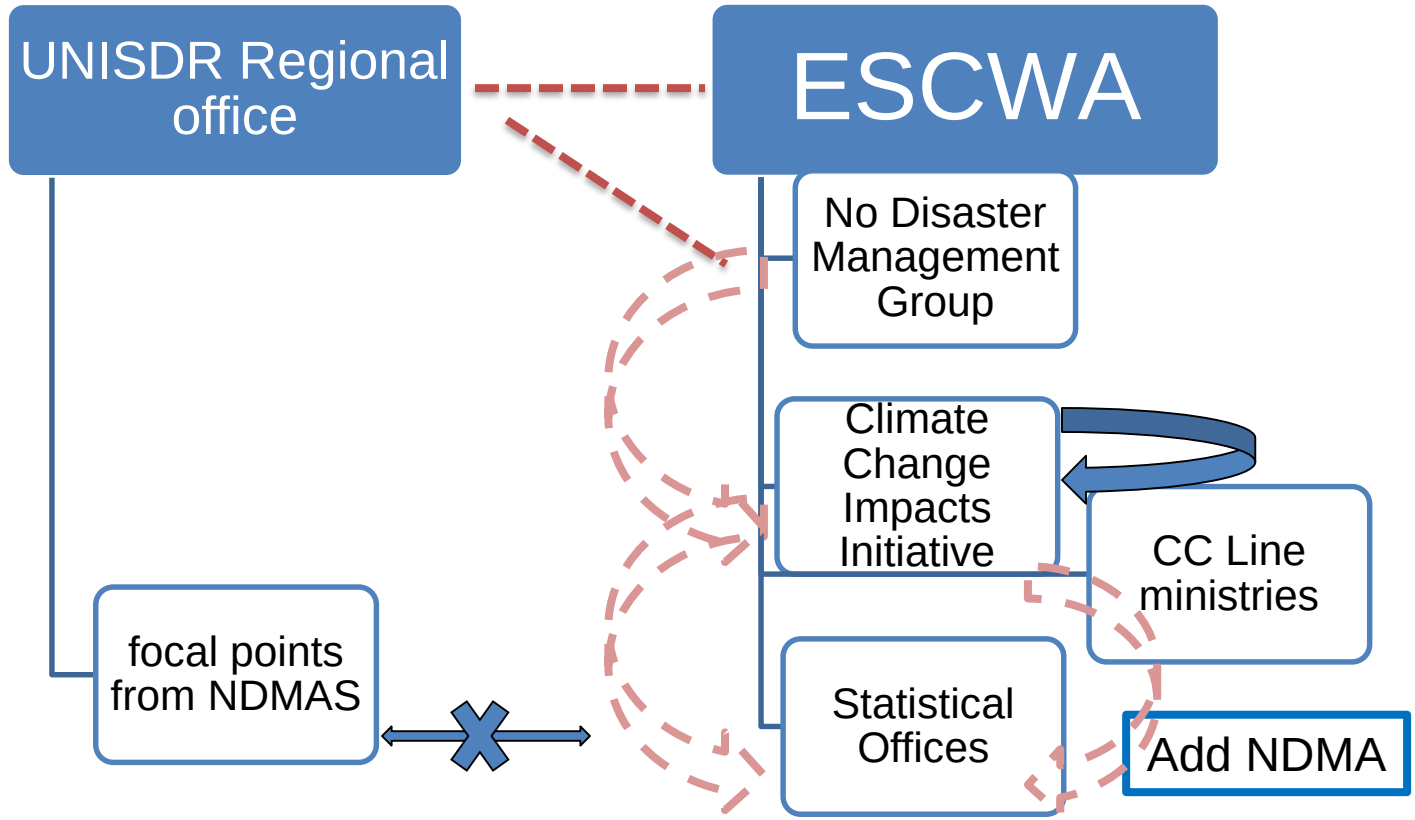
- Arabic Version of e-learning Course on the System of Environmental-Economic Accounting 2012 - Central Framework (SEEA CF)
- National and Regional Workshop on Integrated Environmental and Economic Accounting Systems Sustainable Development Goals (SDGs) in the Arab Region 26 to 29 March 2018.Amman, Jordan
- Workshop on Environment Statistics and Information for Sustainable Development in the Arab Region (UNSD UNESCWA UNEP and EEA) 11-16 NOV2018 Beirut, Lebanon

Technology and Official Statistics

UN-ESCWA and ETC-UMA relevant geospatial information available, national workflows to monitor SDGs, build geospatial skills nationally address country challenges to SDG monitoring

West Asia DRS Current Status

Data collection
SDG - Sendai Reporting



Pilot Countries Assessment of Data for CC and DRS

Scope of DRS: Need for More

In a region where most of the countries suffered and still suffer, for last decade from disasters caused by wars, occupation conflicts uprising, ESCWA raised the case for addressing man-caused and nature-caused disasters ….

	Nature-caused Disasters	Man-Made Disasters
Trees uprooted	Wind	Bulldozers or Bombs
People drowned	Tsunami Floods	Traffickers of Refugees
People killed	Natural Fires	Bombs
Forests burnt	Natural Fires	Bombs
Barren Fields	Drought	Fighting
	Compensation through insurance, relief actions, etc.	Legal file a lawsuit Compensation through International tribunals

Destruction of people planet prosperity

War-risk Hazard

Definition and Classifications by US War Hazards Compensation Act:
Any hazard arising during a war, an armed conflict or between military forces of any origin, occurring within a country from a list of actions:

(1) the discharge of any missile (including liquids and gas) or the use of any weapon, explosive, or other noxious thing by a hostile force or person or in combating an attack or an imagined attach by a hostile force or person;
(2) action of a hostile force or person, including rebellion or insurrection against the United States or any of its allies;
(3) the discharge or explosion of munitions intended for use in connection with a war or armed conflict with a hostile force or person as defined [in the WHCA]
(4) the collision of vessels in convoy or the operation of vessels or aircraft without running lights or without other customary peacetime aids to navigation;
(5) the operation of vessels or aircraft in a zone of hostilities or engaged in war activities."

Methodology Application

disaster occurrences, by hazards types, scale, and geographic region

Measurement units: counts of occurrences

	Geo Region 1				Geo Region 2			
	Large	Medium	Small (Local scale)	Total	Large	Medium	Small (local scale)	Total
Geo-physical								
Hydrological								
Meteorological & Climatalogical								
Biologic								
Other								
Total								

War risk hazard

Population and Exposure (age income Gender Group in Hazard Area)

Critical Infrastructure and Land Coping Capacity

Impacts on people material services environment

Expenditures and transfers

Inter-Regional and Global Work

UN ESCAP work on Methodology for Data Collection

- UNESCAP Manual
- UNESCAP Questionnaire

UNSC 50 Adoption of the Report of the Secretary-General on DRS

UNSD FDES MS 4.1 Extreme events and disasters

Use the existing knowledge to test in West Asia Region in Pilot Countries