

SWIM and Horizon 2020 Support Mechanism

Working for a Sustainable Mediterranean, Caring for our Future

SWIM-H2020 SM Regional Activities

Training on Cost of Environmental Degradation

Presented by:

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Concept of Cost of Environmental Degradation

11 July 2018, Ramallah, Palestine

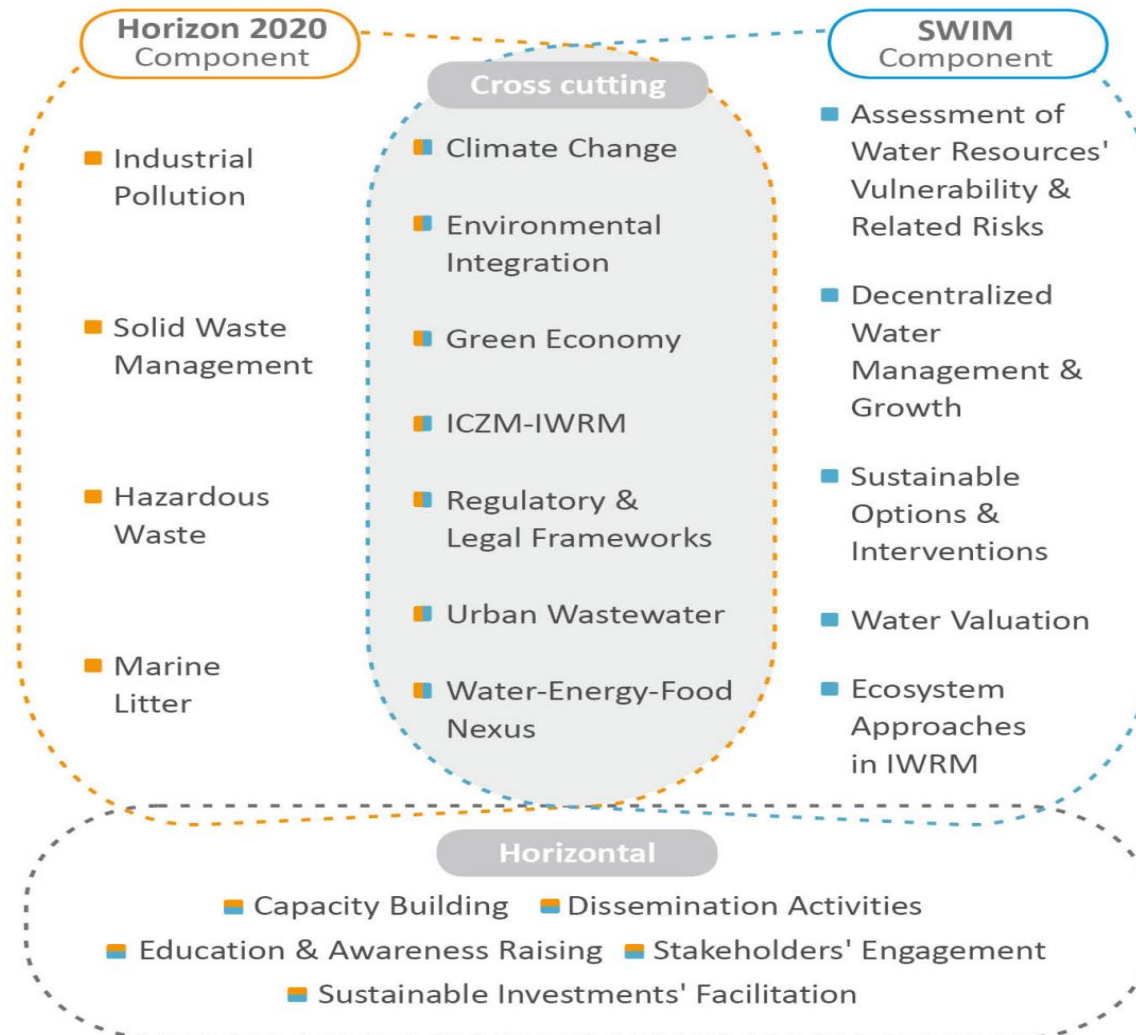
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SWIM-H2020 SM Themes



Content of the presentation

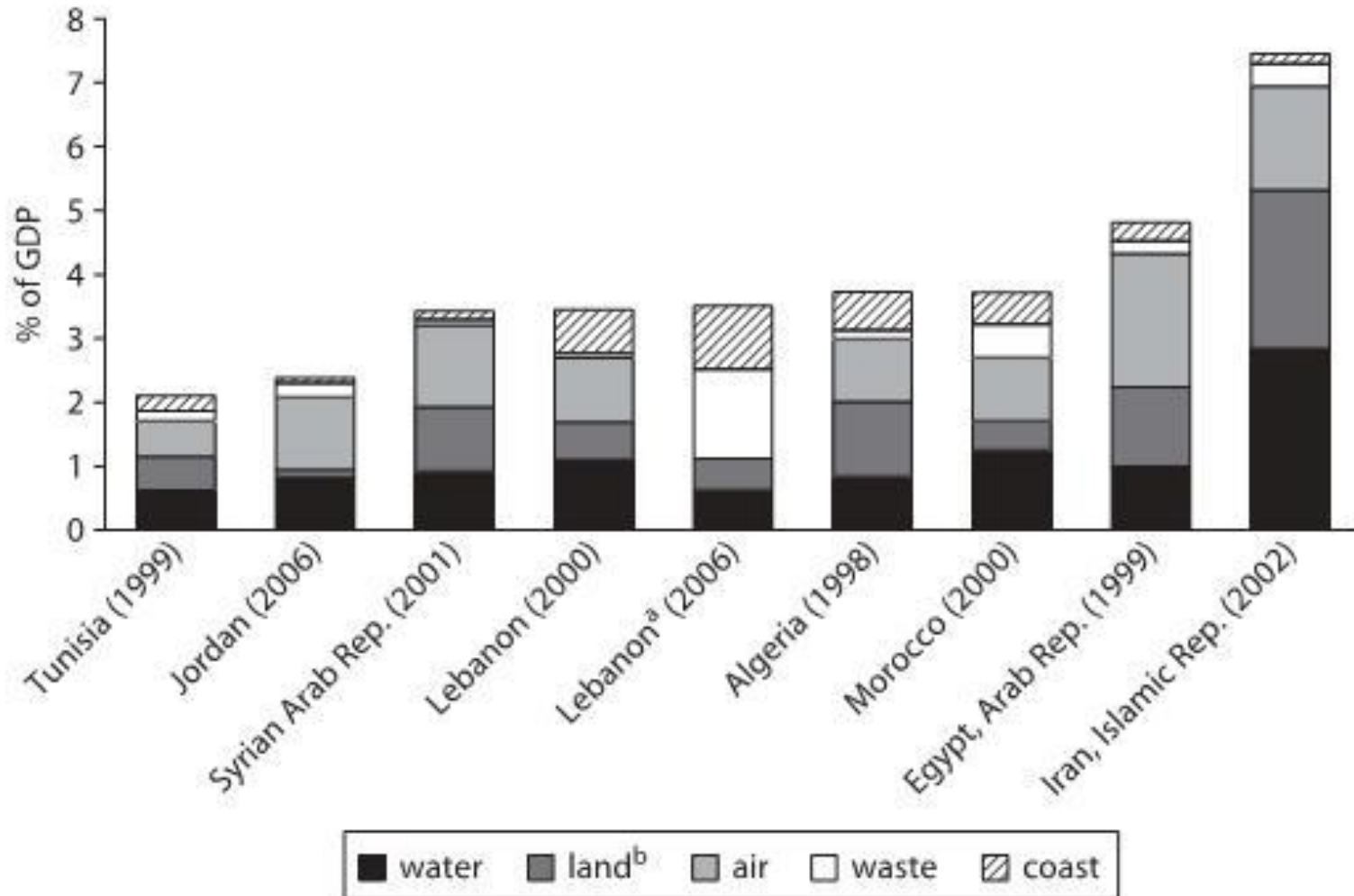
- **History of the concept of Cost of Environmental Degradation**
- **Drivers of environmental degradation**
- **Types of degradation**
- **Impacts of degradation**
- **Types of costs**
- **Next sessions**

History

- Environmental degradation is the deterioration of the environment through depletion of resources such as air, water and soil; the destruction of ecosystems; habitat destruction; the extinction of wildlife; and pollution
- In the last decades of the 20th century, governments started realizing that environmental degradation came at a high cost; the question how much was not answered immediately
- Several attempts were made to quantify the cost of environmental degradation on the research level
- At the end of last century, the World Bank developed a standard concept early this century and applied this in a number of studies in the MENA region, among others in Morocco, Algeria, Tunisia, Egypt, Jordan, Syria and Iran.

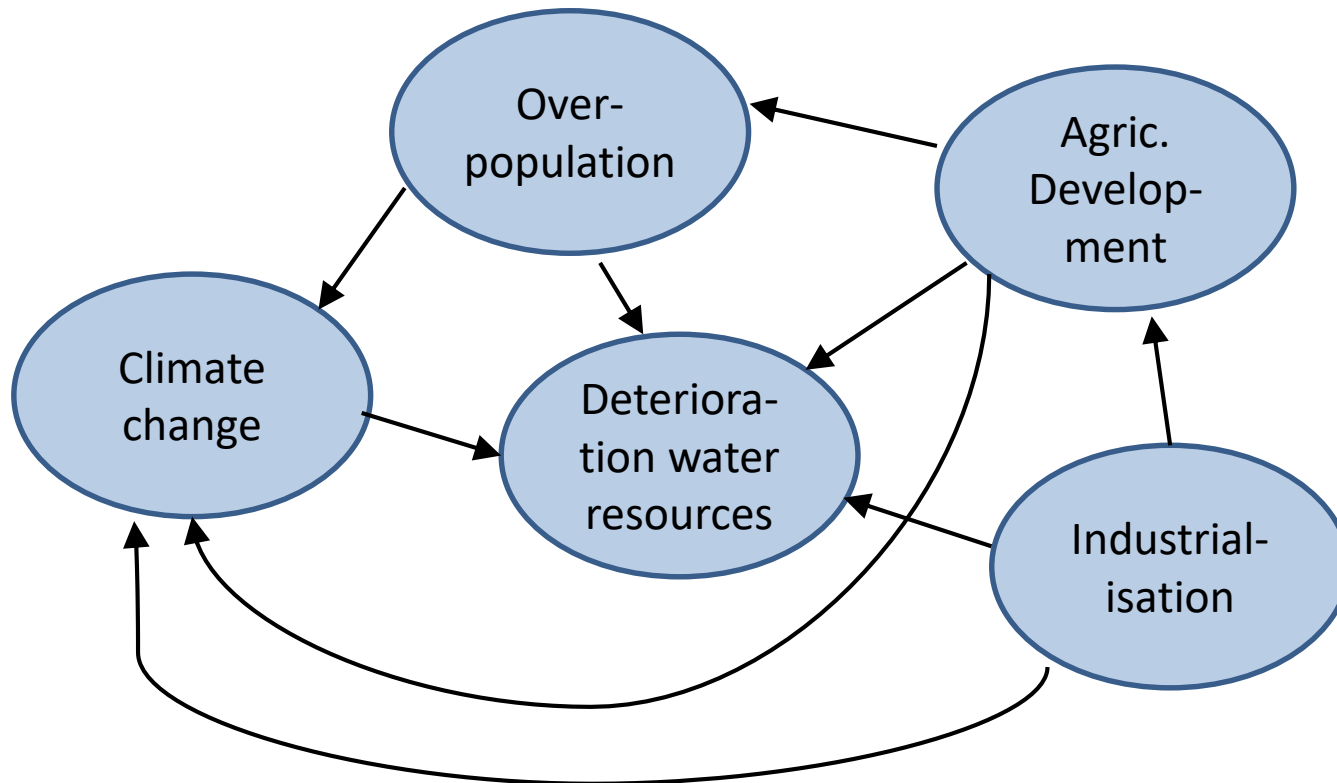
History - 2

Figure 1.1 Estimated COED in Selected Middle Eastern and North African Countries



Drivers

- Major drivers for environmental degradation are overpopulation, development (agriculture; industry; way of living) and climate change. These are not independent factors but closely related to each other in a closed loop



Types of degradation

- Less or more irregular rainfall
- Less water resources
- Lower quality of water resources
- Decline of groundwater level
- Higher air temperatures
- Bad quality of ambient air
- Loss of biodiversity
- Poor marine biotope
- Degradation of soil
- Accumulation of toxic substances

Impacts

- Health issues related to water quality (diarrhea, diseases related to toxic substances)
- Health issues related to higher air temperatures
- Asthma, lung cancer, cardiovascular diseases
- Decrease of the health of the planet
- Reduction of agricultural production
- Increase of plant diseases
- Decline of food security
- Premature death
- Less fish

World Bank reports do not look at ecosystem services

- IUCN, the World Conservation Union, estimates that the monetary value of goods and services provided by ecosystems amounts to some 27 trillion EUR per year, more than the GDP of the USA and the EU together.
- Nature-based tourism in Africa generates approximately the same amount of revenue as farming, forestry and fisheries combined.
- A report in 2003 estimated the total value of annual benefits of the UK's forests to its people to be around 1.2 billion EUR.

Types of costs

- Health care costs
- Loss of productivity
- Interruption of water supply
- Replacement of water resources

Next sessions

- Air pollution in Jordan
- Water pollution Tunisia
- Water pollution in Jordan
- Land degradation in Morocco
- Deforestation Iran
- excercises

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Thank you for your attention.

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