

A stylized world map in white and light blue, centered on the Atlantic Ocean, set against a dark red background.

Adjusting the Regional Vulnerability Assessment Methodology

Training on Applying the Climate Change Vulnerability Assessment Methodology in the Arab Region, 11-13 May 2014, Beirut

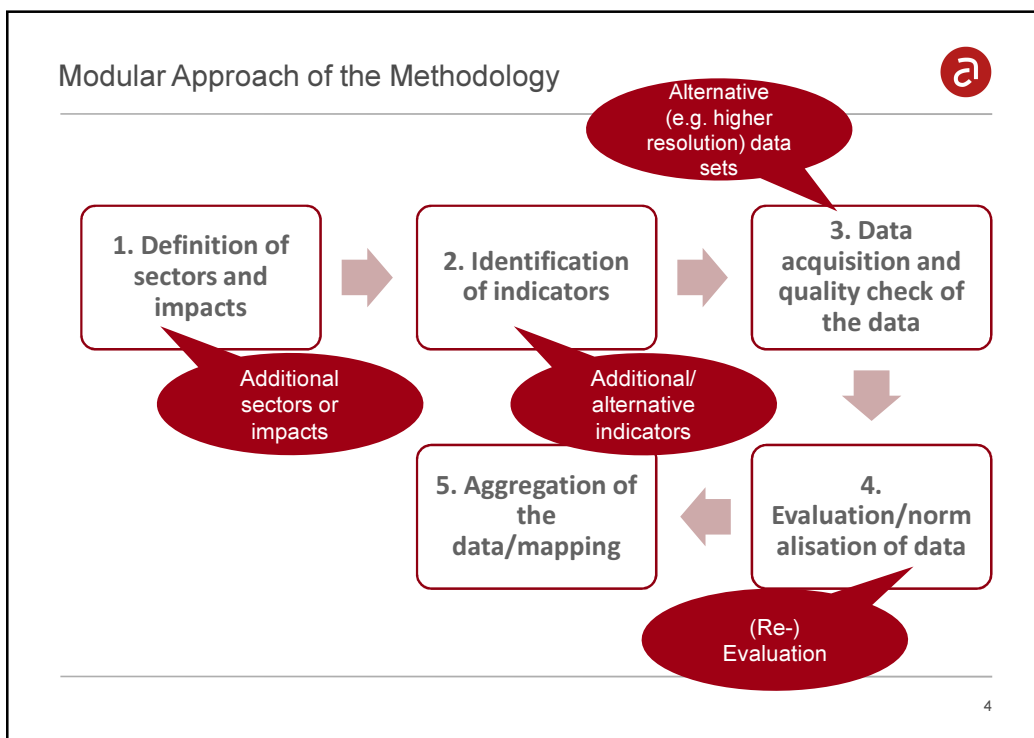
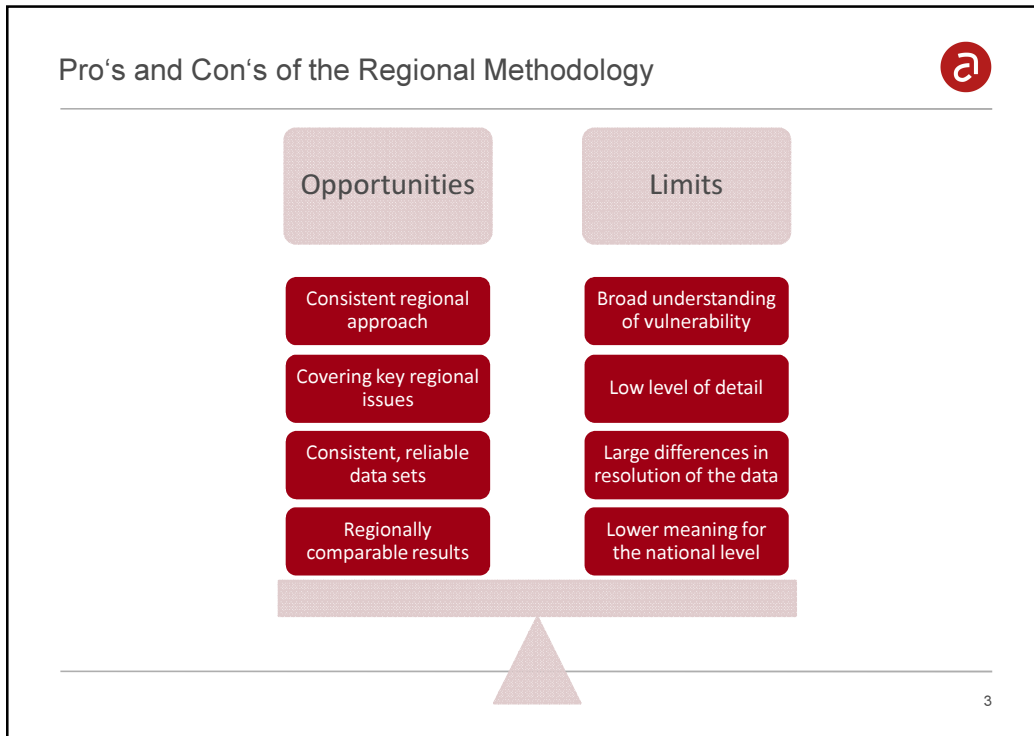
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Regional Vulnerability Assessment Methodology



❖ What does 'regional' mean?

- Sectors relevant for the whole region
 - Impacts relevant for the whole region
 - Indicators that can be quantified for the whole region in a consistent, comparable way
- ➔ Utilisation of data sets covering the whole region provided by international or regional organisations



1) Inclusion of Additional Sectors or Impacts



Water



Biodiversity & Ecosystems



Agriculture



Infrastructure & Human Settlements



People

Change in area covered by forests

Change in area of wetlands/marshes

Change in biodiversity of coastal areas

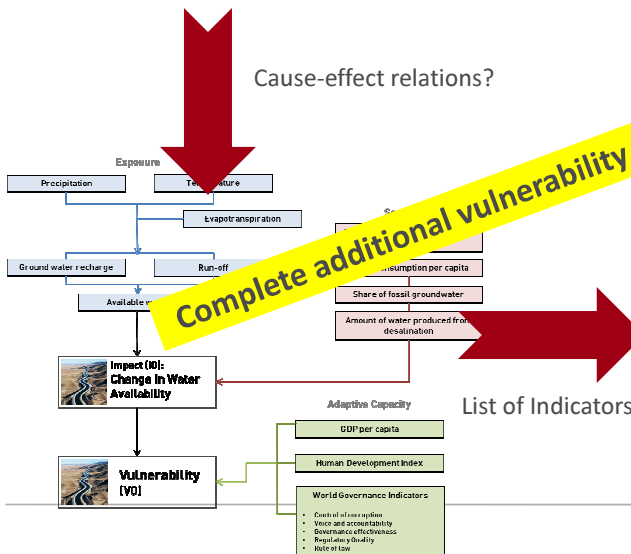
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Inclusion of an Additional Impact

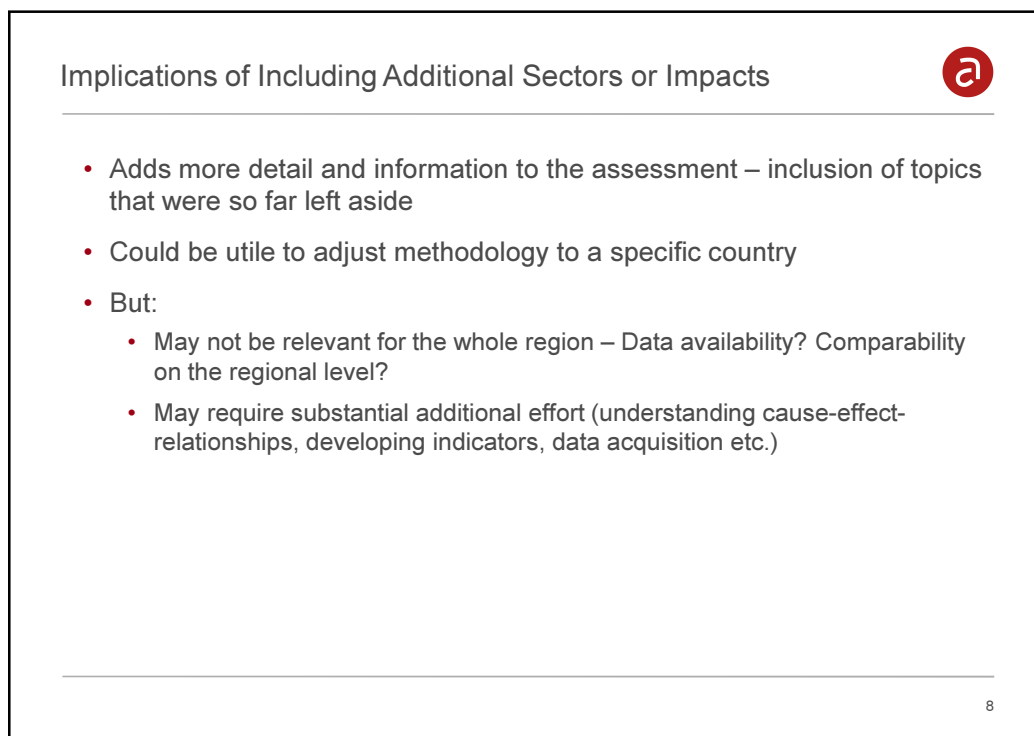
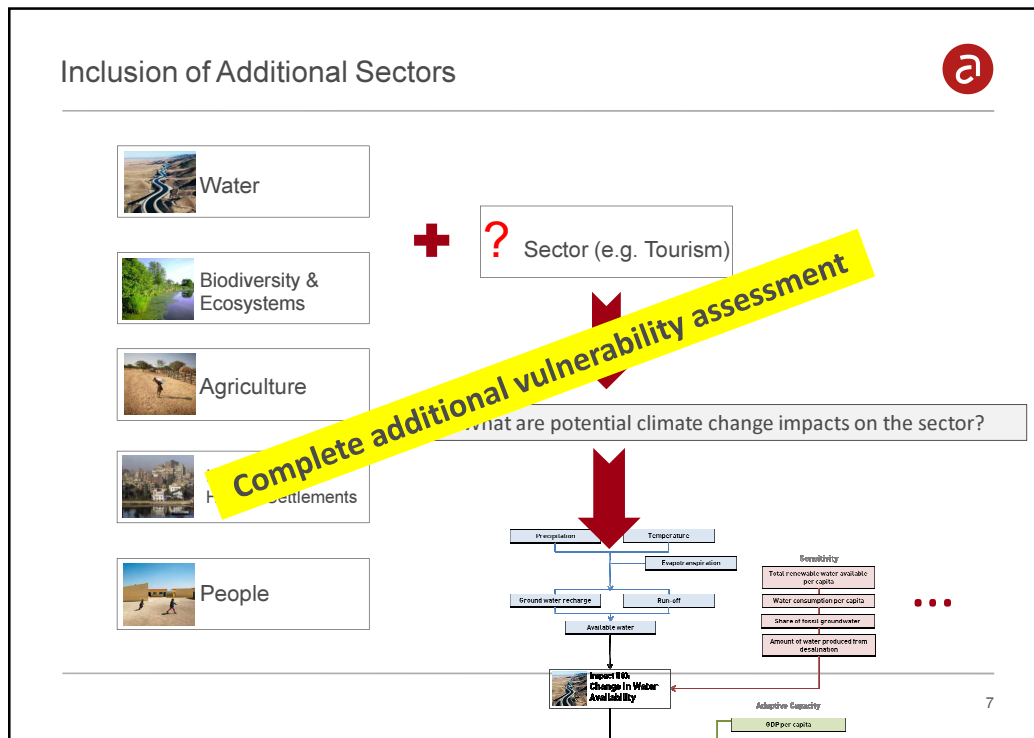


Change in biodiversity of coastal areas

Cause-effect relations?



Indicator / Index	Description	Unit	Spatial resolution
Change in area covered by forests	Indicates (projected/future) trends and changes in run-off	mm	50*50km
Change in area of wetlands/marshes	Indicates (projected/future) trends and changes in run-off	mm	50*50km
Renewable water available per capita (TARWR)	Indicates human pressure on renewable but finite resources	m ³ /capita/yr	national level (one value per country)
Water consumption per capita	Indicates the intensity of use of actual water resources	m ³ /capita/yr	national level (one value per country)
Share of fossil groundwater	Indicates the intensity of use of finite and non-renewable water resources	%	iba
Amount of water produced from desalination	Indicates the share of water produced from desalination	m ³ /year or m ³ /year/capita	national level (one value per country)
Water reuse rate	Indicates the reuse rate of wastewater	%	national level (one value per country)
Water dependency	Indicates the dependency on water which is received from other countries	Aquastat	national level (one value per country)
Water storage capacities (dams)	Indicates the amount of water which potentially can be stored in dams and used e.g. for irrigation	ACDAD	Point values for dams and storage capacity by dam
GDP per capita	Indicates the per-capita welfare and is used as an indicator for living general conditions	\$capita	15*15 minutes grid
HDI	Indicates the social and economic development based on four criteria: life expectancy at birth, mean years of schooling, expected years of schooling and gross national income per capita	0 to 1	national level (one value per country)
Control of corruption	World governance indicators indicate the traditions and	-2.5 to 2.5	national level

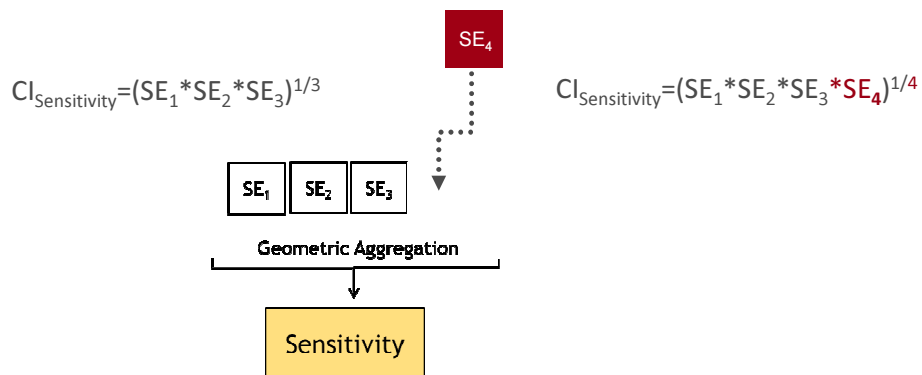


2) Inclusion of Additional or Alternative Indicators



Purpose:

Inclusion of additional information (e.g. also gender-disaggregated data)



9

Implications of Including Additional Indicators



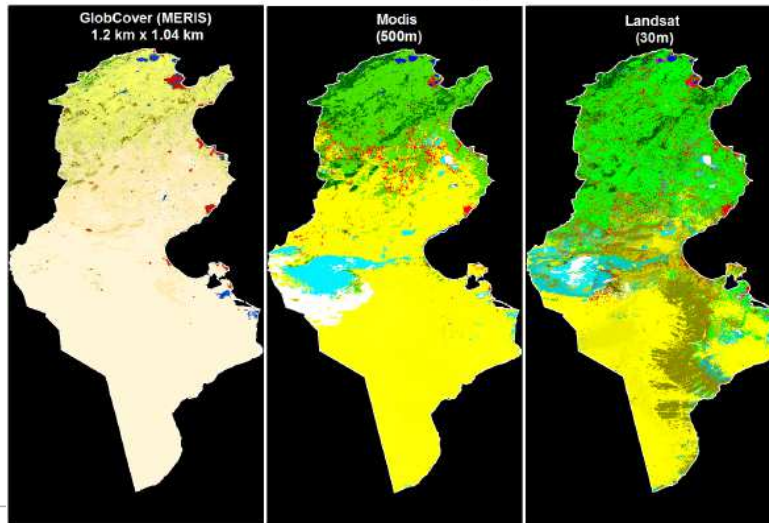
- Changes indicator framework of the VA – ideally adds more detail and makes the VA more meaningful
- But, needs to be a deliberate decision and fit into the overall indicator framework!
- Data availability is crucial – only comparable if consistent data available for the whole region

10

3) Inclusion of Alternative Data Sets



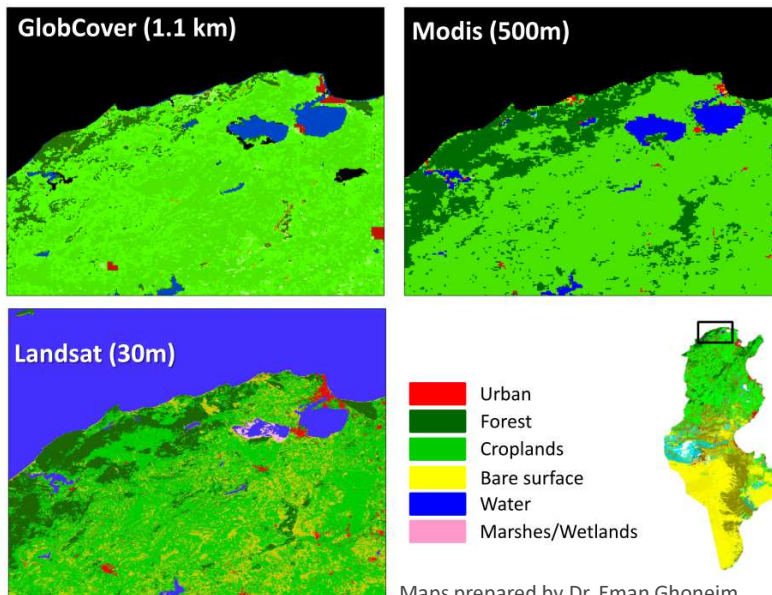
LULC Product Comparison



Maps prepared by Dr. Eman Ghoneim.

11

Example Land Use Land Cover



Maps prepared by Dr. Eman Ghoneim.

12

Implications of Utilising Alternative Data Sets



- Higher level of detail – higher information value
- But: if data sets are not consistently applicable for the whole region, than **loss of comparability** for the regional level!
- If focusing on one country VA could serve the purpose of informing national adaptation strategies:
 - Identification of national vulnerability hotspots
 - Identification of priority sectors for adaptation
 - But be careful to draw conclusions for the local level!

13

4) (Re-)Evaluation of Indicators



- When?
 - If new or alternative data is included (new range of indicator values)
 - If zooming into a country
- Implications:
 - Allows considering specific national conditions
 - Changes range of indicator values/categories – different evaluation information on the national and regional level



14

Conclusion I



- VA methodology is flexible and can be easily adjusted and advanced:
 - Including additional topics
 - Including additional indicators
 - Using alternative data
 - Adjusting evaluation of indicator values

- Adjustments need to be chosen wisely:
 - What is the purpose?
 - Data availability & data quality? - still regionally consistent/comparable?

15


Conclusion II – Broadness vs. Depth



••• What does the methodology allow?

Regional level	National level
<ul style="list-style-type: none"> • Obtain a regionally consistent and multi-sectoral assessment of vulnerability • Identify broad vulnerability hotspots • Purpose: Get an impression of climate change implications in the Arab region and identify shared challenges – inform dialogue and exchange on a regional level 	<ul style="list-style-type: none"> • Assess national climate change vulnerability, but ideally focussed on fewer topics • Identify more specific national climate change hotspots • Purpose: Identify priority areas for action, inform the development of national adaptation strategies – but: more indepth-assessments needed for adaptation planning on the local level

16



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