Monitoring & Evaluation Indicators

in the UNCCD context

DDD 5th International Conference2014
Sede Boqer, Israel
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UNCCD
United Nations Convention
to Combat Desertification

A land-based adaptation reporting indicator

- Monitoring progress of common outcomes brings increased consistency.
- Challenge for the global community: identification of M&E frameworks that include indicators for land-based adaptation. A three-step approach is proposed:
  1. Define steps for M&E adaptation policy and practice, to encourage adaptation action and national assessment;
  2. Propose developing a set of recommendations and practical methodologies, tools and options for common indicators or a framework for national reporting on land-based adaptation policies and practices.
  3. Adopt the biophysical reporting indicators on land-based adaptation of the UNCCD:
     – Land productivity dynamics
     – Land cover change as an outcome of land use change; and
     – Trends in carbon stocks above and below ground.

A land-based adaptation reporting indicator

- Aim: to highlight at the linkages that land ecosystems have with climate change adaptation strategies and report on country experiences and information between climate change and SLM in a framework that could be common to the three Rio conventions)

- A set of common reporting indicators can be visualized

  o To demonstrate that synergies on common indicators for reporting on land issues under the UNFCCC can contribute to implementation of the objectives of the UNFCCC, CBD and UNCCD conventions.

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The 10-Year Strategy

Indicator-based system for reviewing and assessing the performance and impact of implementing the UNCCD

The Performance Review and Assessment of Implementation System (**PRAIS**) represents a fundamental step forward towards improved evidence-based decision-making within the UNCCD

Refinement of indicators

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Activities

AGTE – assessment and further refinement

Pilot

Scientific peer review

Preliminary studies

Years

| 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |

Milestones

Adoption of The Strategy

Iterative process

Ad Hoc Group of Technical Experts

CST S-3 2nd Scientific Conference

Revised set of impact indicators

Some Major Scientific Issues (What scientists have brought up to the convention)

- National/local and global Indicators
- A conceptual framework that allows integrating indicators (coherence and complementarity)
- Indicators sourcing and management mechanisms at national/local levels

Are there political sensitiveness? Drylands – Non Drylands?

Delineation of affected areas

- **Step-wise approach (by group of experts)**

  – **First step based on climatic characteristics**

  – **Further division of affected areas into**
    - **Potentially affected w/o evidence of risk**
    - **At risk of being affected (socio-economic drivers)**
    - **Currently affected areas (vegetal and soil degradation)**
    - **Inherited affected areas (desertification drivers are no longer active)**
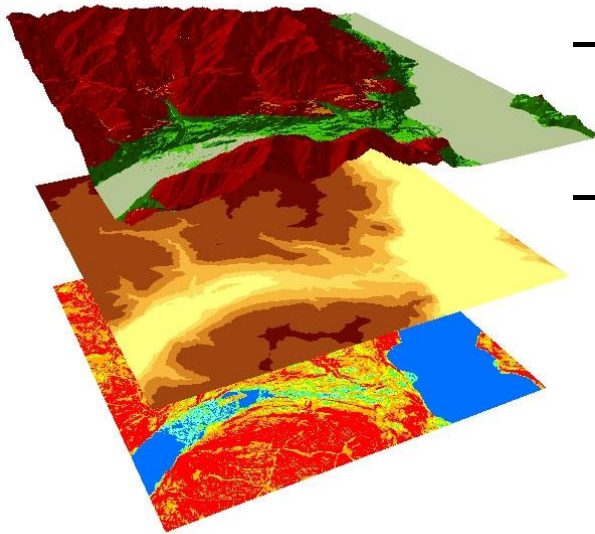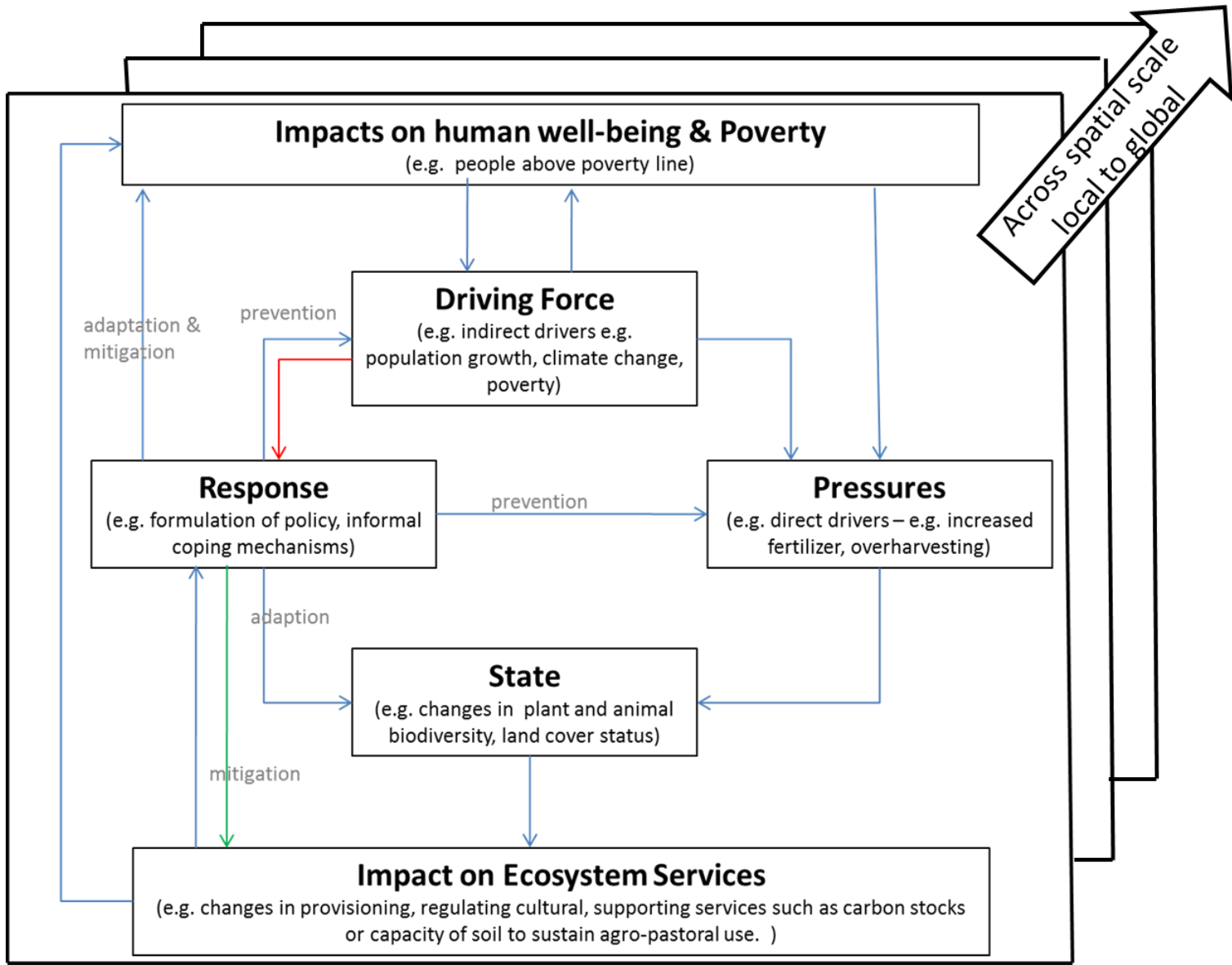
The Drylands – Non Drylands Issue

Climate is not the whole story, the way land is used is also relevant

For the purposes of the UNCCD:

- Affected Areas =   Drylands (currently affected AND at risk of being affected by LD)
- Non-Drylands =   Potentially affected

Indicators	Metrics/Proxies
Strategic Objective 1 : To improve the living conditions of affected populations	
Trends in population living below the relative poverty line and/or income inequality in affected areas	Poverty severity (or squared poverty gap) *or* Income inequality
Trends in access to safe drinking water in affected areas	Proportion of population using an improved drinking water source
Strategic Objective 2: To improve the condition of ecosystems	
Trends in land cover structure	**Vegetative land cover structure**
Trends in land productivity or functioning of the land	**Land productivity dynamics**
Strategic Objective 3: To generate global benefits through effective implementation of the UNCCD	
Trends in carbon stocks above and below ground	**Soil organic carbon stock** Total terrestrial system carbon stock
Trends in abundance and distribution of selected species	Global Wild Bird Index

Refined operational conceptual integration framework

Impacts on human well-being & Poverty
(e.g. people above poverty line)

Driving Force
(e.g. indirect drivers e.g. population growth, climate change, poverty)

prevention

adaptation & mitigation

Response
(e.g. formulation of policy, informal coping mechanisms)

prevention

Pressures
(e.g. direct drivers – e.g. increased fertilizer, overharvesting)

adaption

State
(e.g. changes in plant and animal biodiversity, land cover status)

mitigation

Impact on Ecosystem Services
(e.g. changes in provisioning, regulating cultural, supporting services such as carbon stocks or capacity of soil to sustain agro-pastoral use.)

Across spatial scale local to global

Missing in KM –land figure normally included in standard DPSIR (is shown in Orr white paper)

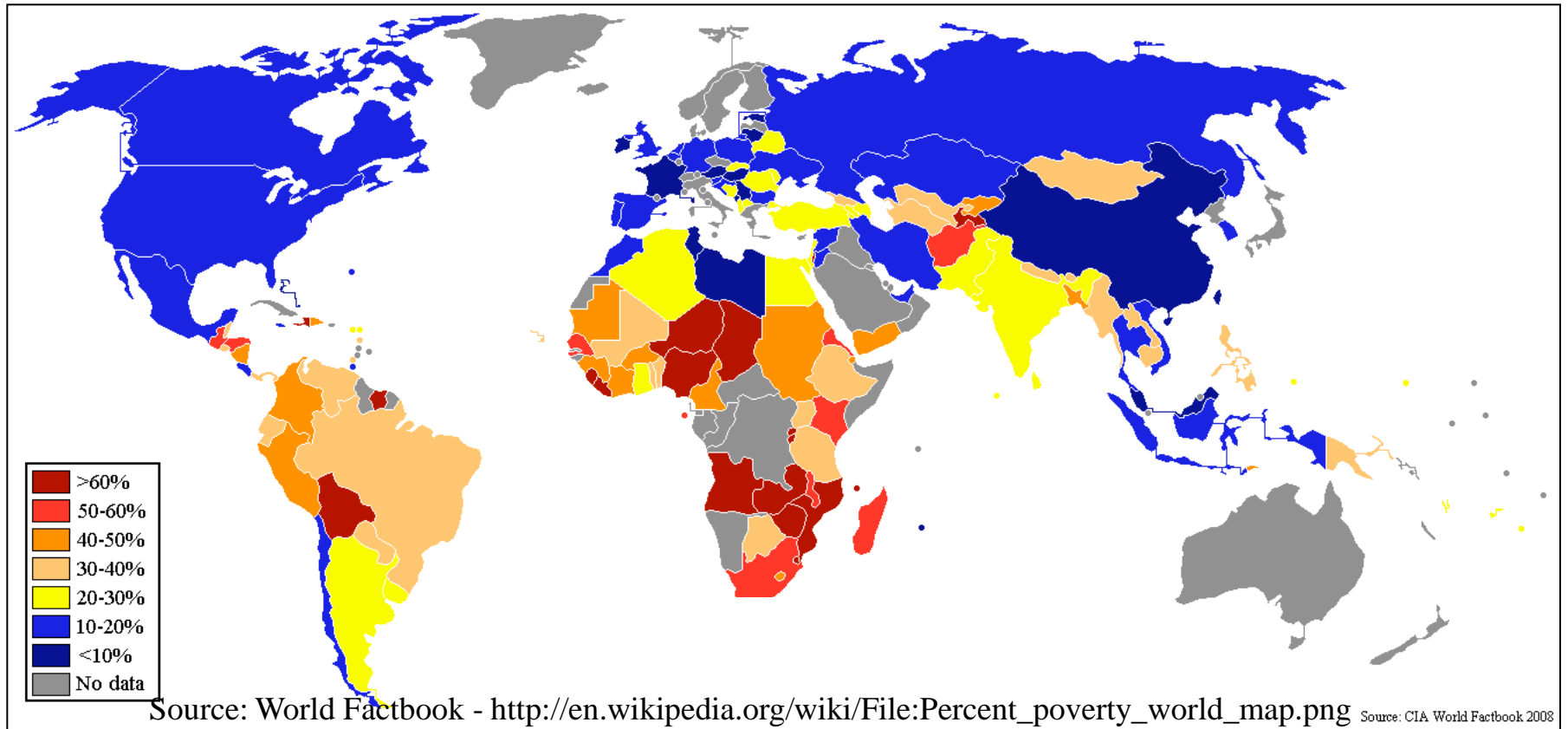Not normally in standard DPSIR but in KM land report (not in Orr white paper)

Common Indicators may be used globally…

ESA's GLobcover 2009 Map

Source: European Space Agency - © ESA 2010 and UCLouvain

…but may not be equally sensitive in all countries

Population Living Below National Poverty Line

Legend:
- >60%
- 50-60%
- 40-50%
- 30-40%
- 20-30%
- 10-20%
- <10%
- No data

Source: World Factbook - http://en.wikipedia.org/wiki/File:Percent_poverty_world_map.png Source: CIA World Factbook 2008

**Parties can use global data estimates or use own data.
Is the degree of poverty caused by desertification?**

Parties to complement common progress indicators with national/local formal and narrative indicators based on existent data collection systems /databases and from local storylines

Sign: perennial grass
"You can see that the grass begins to grow where the three-thorn has been killed. That is knietjiegras (*Eragrostis lehmaniana*), a good perennial grass. Here I have also extracted my animals after controlling the three-thorn."

Sign: animal condition
"If my rams are as fat as this one, then I know there's enough food in the veld for them."
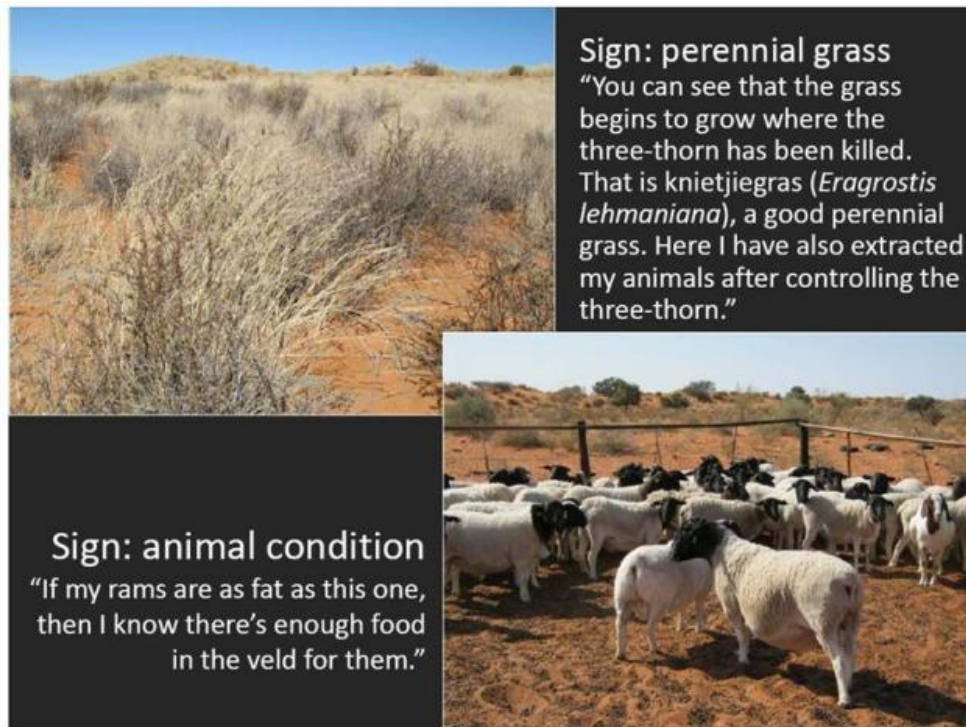
Storyline: A qualitative approach the documented history of successes and failures which were experienced by a particular site threatened by DLDD processes: Local populations developing the arguments for the indicators proposed.
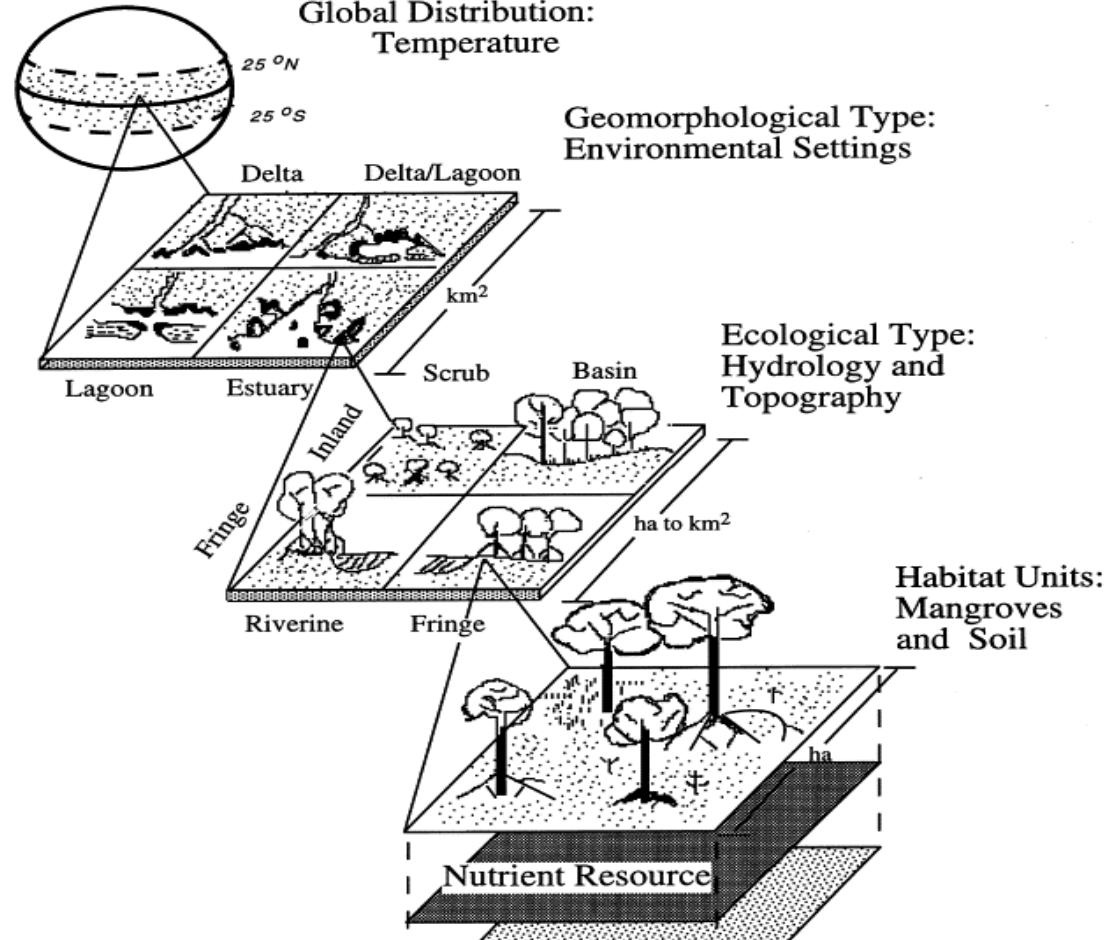
Photos Stakeholders in MEIR, South Africa, 2011

Some integration challenges: information from local to global

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Scaling up
(local>national>global)
cannot always be accomplished
by aggregation

Combining and/or comparing
potentially different indicators
from different countries : Lack of
standardization / harmonization

Experts recommended to build a positive feedback loop (both ways) between local and global scales supported by a coordination system across spatial and governance levels
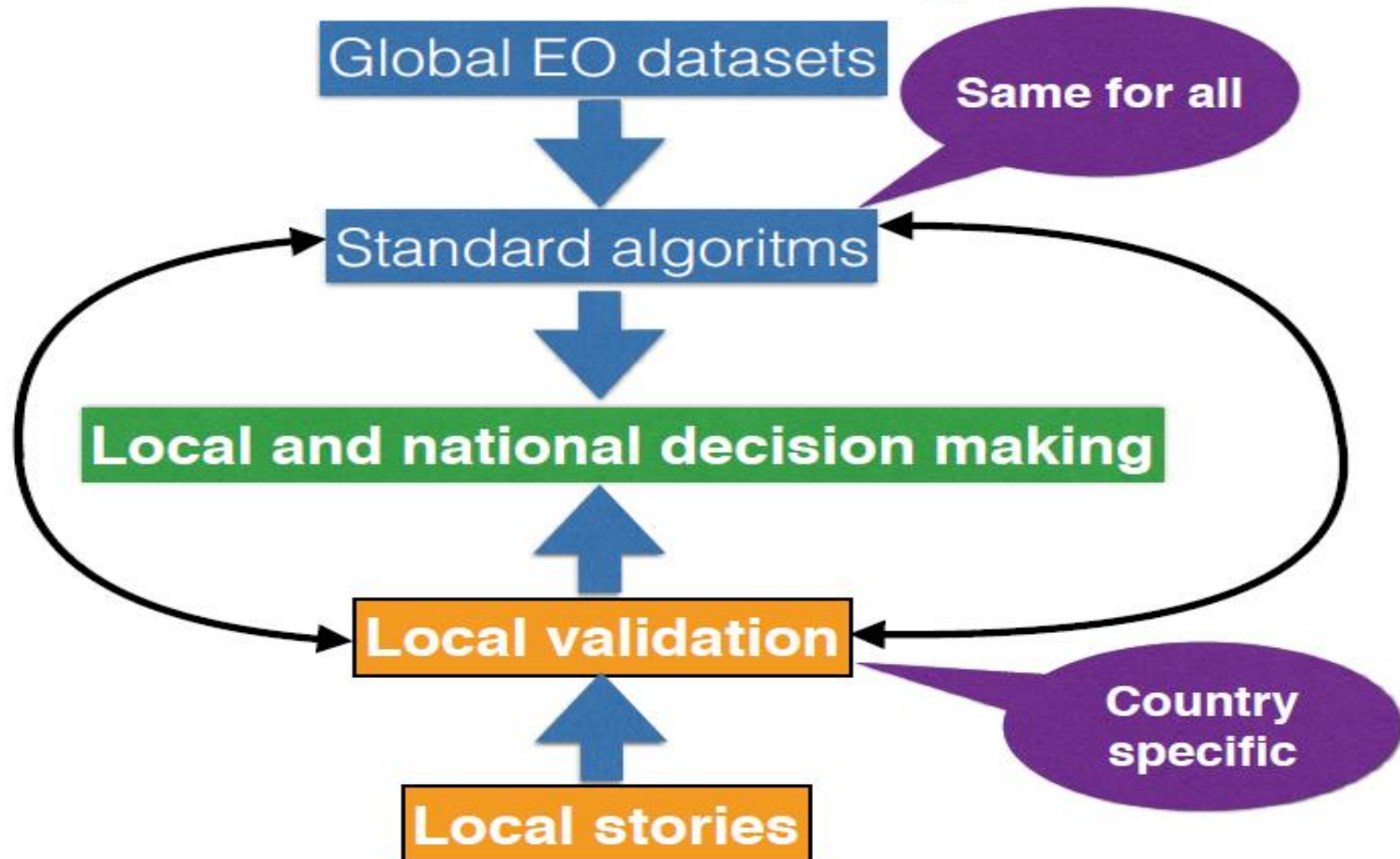

Global Distribution: Temperature

25 °N
25 °S

Geomorphological Type: Environmental Settings

Delta   Delta/Lagoon

km²

Lagoon   Estuary

Ecological Type: Hydrology and Topography

Scrub   Basin

Inland

Fringe

ha to km²

Riverine   Fringe

Habitat Units: Mangroves and Soil

ha

Nutrient Resource

a nested hierarchy

An example on Land Cover: Remote Sensing

How do we make best use of our remote sensing resources to support the monitoring and evaluation of land degradation?

Global EO datasets → Standard algoritms — Same for all

Standard algoritms → Local and national decision making

Local and national decision making ← Local validation ← Local stories — Country specific

Source: Patrick Klitenberg

A common indicator for the Rio Conventions: What type of Indicator?

- For land degradation? For sustainable management? restoration? land-based adaptation?

- Scales issues

- Stakeholder perspective
  - Institutions competition

- Integration
  - Scientists vs. decision-makers; policy-makers
  - Many vs. the "one-size fits all" (the GDP syndrome)

Thank you!

Presentation prepared by Victor Castillo, with inputs from B. Orr, S. Zelaya and others