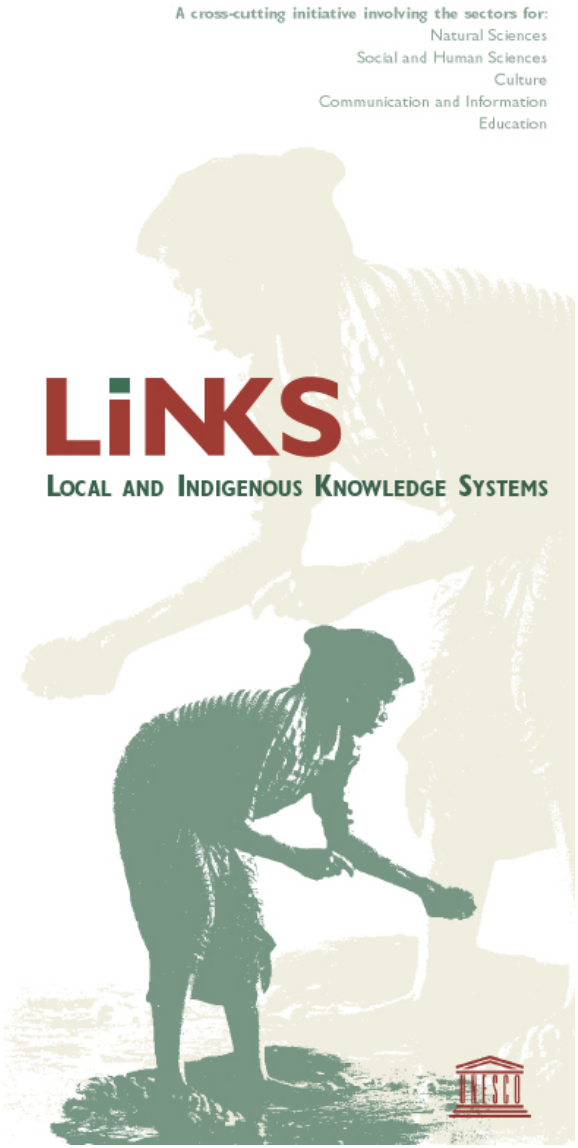
Local and Indigenous Knowledge for Climate Change Decision-making

Building dialogue between indigenous and scientific knowledge on weather and climate – examples from Africa

UNFCCC Multi-stakeholder workshop on implementing the functions of the local communities and indigenous peoples (LCIP) platform, Bonn
1 May 2018

United Nations
Educational, Scientific and
Cultural Organization

LiNKS
Local and Indigenous
Knowledge Systems



Local and Indigenous Knowledge Systems (LINKS) Programme

Established in 2002

INTERDISCIPLINARY

drawing upon disciplines across the natural and social sciences and culture

TRANSDISCIPLINARY

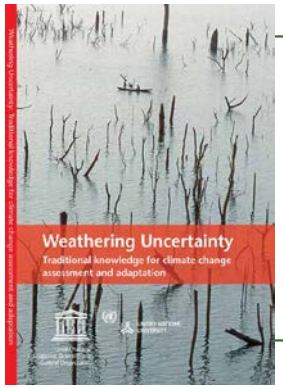
building dialogue across knowledge systems

Notably between indigenous peoples' knowledge systems and scientific knowledge

IPCC Fifth Assessment Report
Summary for Policymakers

United Nations Educational, Scientific and Cultural Organization

LiNKS Local and Indigenous Knowledge Systems



Weathering Uncertainty: Traditional Knowledge for Climate Change Assessment and Adaptation (2012)

- Review by UNESCO-LINKS and UNU for Authors of the IPCC 5AR

5AR Synthesis Report – SPM (2014)

Indigenous, local, and traditional knowledge systems and practices, including indigenous peoples' holistic view of community and environment, are a major resource for adapting to climate change …

Integrating such forms of knowledge with existing practices increases the effectiveness of adaptation.

13 CLIMATE ACTION

Paris Agreement - Article 7.5

United Nations Educational, Scientific and Cultural Organization

LiNKS Local and Indigenous Knowledge Systems

PARIS2015 UN CLIMATE CHANGE CONFERENCE COP21·CMP11

Parties acknowledge that adaptation action should … be based on and guided by the best available science and, as appropriate, **traditional knowledge, knowledge of indigenous peoples and local knowledge systems,** with a view to integrating adaptation into relevant socioeconomic and environmental policies and actions, where appropriate.

13 CLIMATE ACTION

Example: Pastoral peoples Knowledge and Resilience

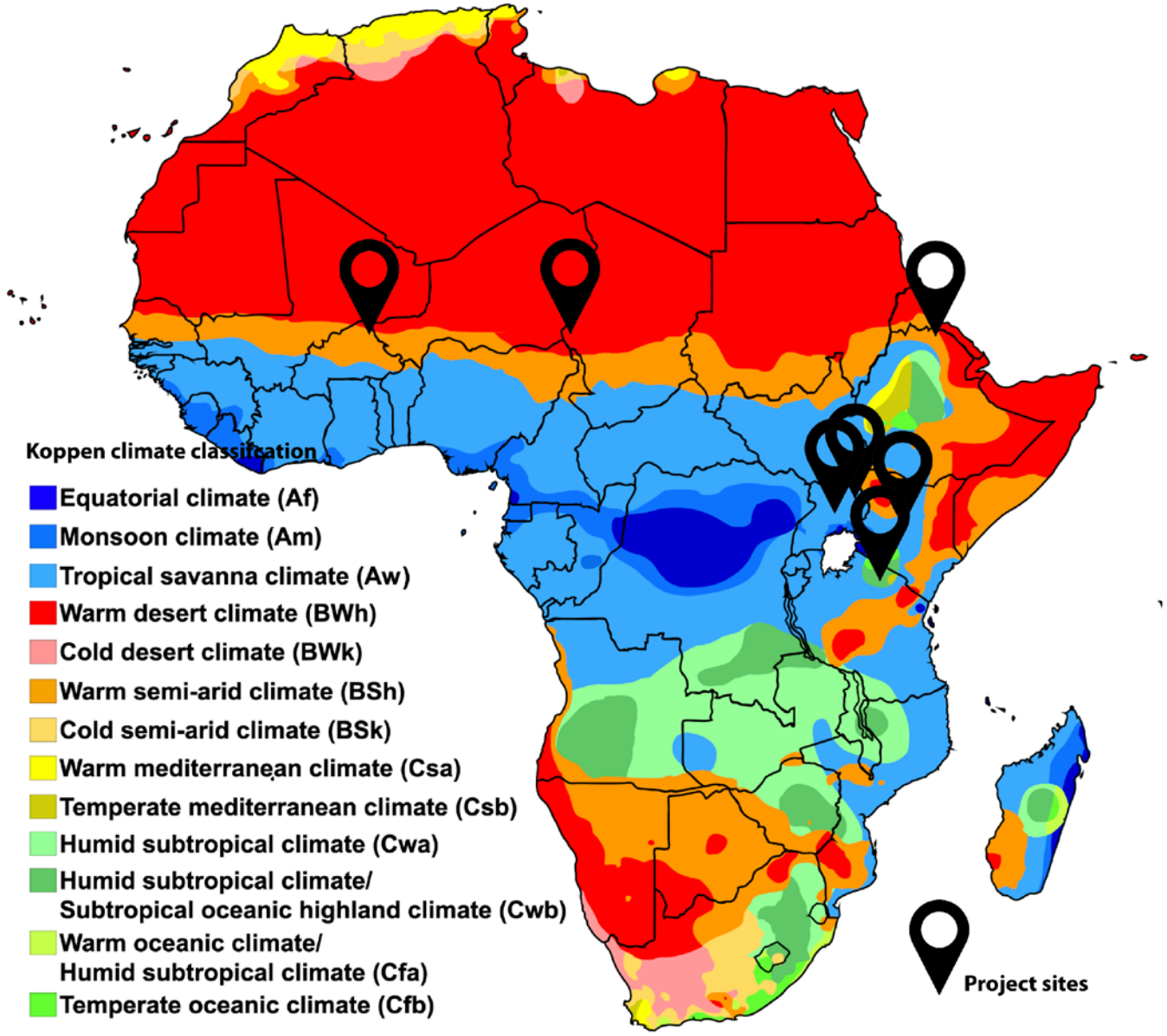
United Nations Educational, Scientific and Cultural Organization

LiNKS Local and Indigenous Knowledge Systems

- Pastoral peoples live in environments with high variability and exposure to climate stress.
- They have observed and responded to local weather and climate for millennia.
- Based on their knowledge, they take critical decisions with respect to their well-being and that of their herds.
- Through knowledge, they adapt and maintain resilience in the face of global change, including climate change.

13 CLIMATE ACTION

LiNKS
Local and Indigenous Knowledge Systems



13 CLIMATE ACTION

Indigenous knowledge of weather and climate

United Nations Educational, Scientific and Cultural Organization

LiNKS Local and Indigenous Knowledge Systems

A diversity of seasons and calendars:

- Mbororo (Chad) and Bahima (Uganda) divide the annual cycle into 6 seasons, while the Karamajong (Uganda) conceptualize the year in 4 seasons.

Multiple categories of rain/drought:

- Afar (Ethiopia) have names for 7 types of rain differentiated by the quality of precipitation, their duration, continuous or intermittent nature etc.
- Afar have 3 terms for drought conditions differentiated by their duration, intensity and the impact on the availability of livestock fodder and the condition of their herds

Multi-dimensional indicators for weather and climate forecasting:

- Meteorological – wind direction/strength, cloud formations, humidity
- Lunar cycles and constellations – appearance/position of moon and stars
- Plant phenology – flowering/fruiting, growth, withering or loss of foliage
- Animals – termite flights, bird song or nesting sites, behavior of wild or domestic animals

13 CLIMATE ACTION

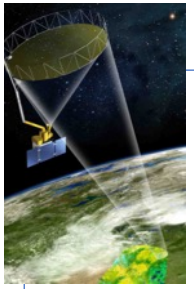
Coupling indigenous and scientific expertise

United Nations Educational, Scientific and Cultural Organization

LiNKS Local and Indigenous Knowledge Systems

Pastoralist forecasting

- Observation of many variables (bio-physical)
- Local scale
- Qualitative measures
- High resolution knowledge sharing networks



Scientific forecasting

- Extrapolations based on a few physical variables
- Regional/subregional scale
- Quantitative
- Modeling with seasonal or annual averages

Establishing Platforms for Dialogue and Knowledge Exchange

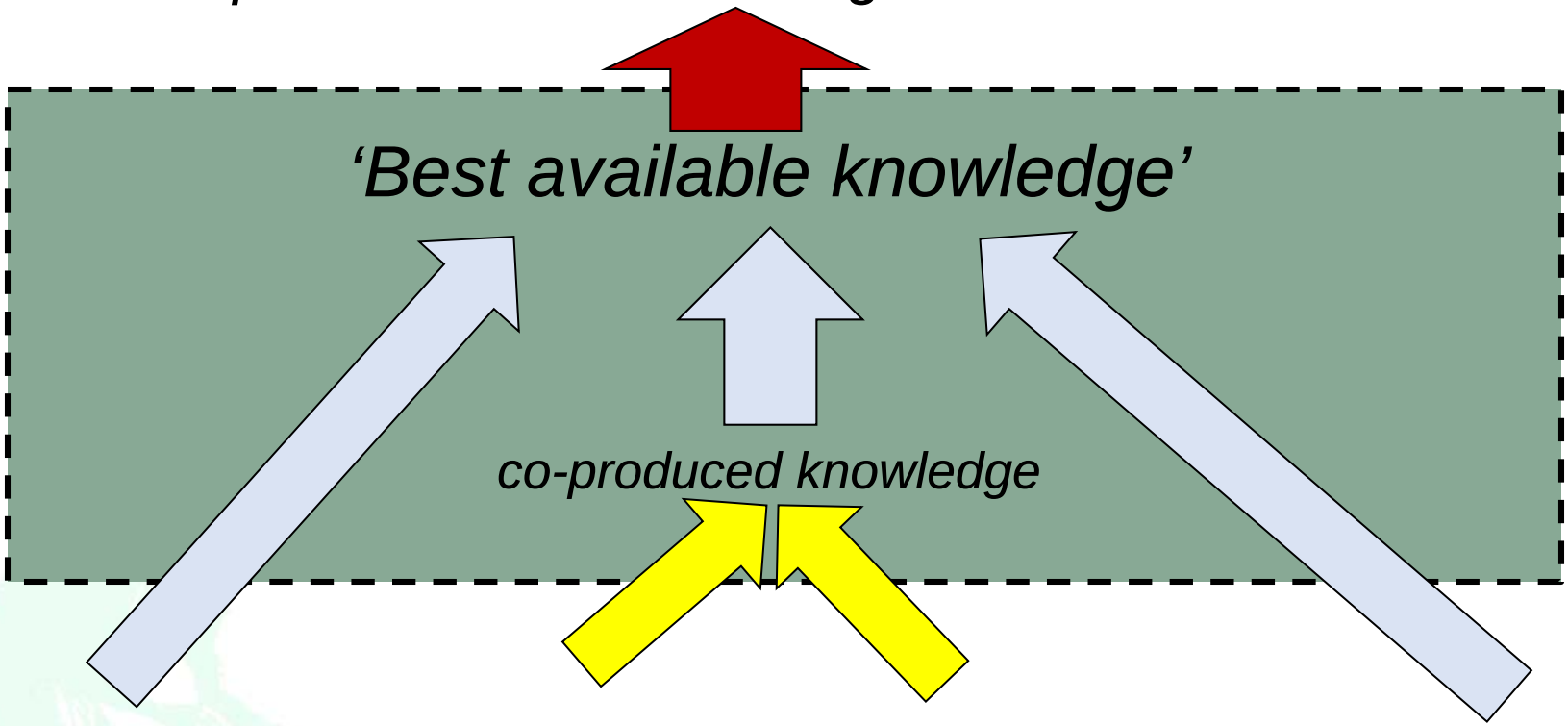
- Bringing together pastoral peoples with meteorologists and climate scientists
- To compare, contrast and couple forecasting capacities and techniques
- To improve knowledge for decision-making

13 CLIMATE ACTION

United Nations Educational, Scientific and Cultural Organization

LiNKS Local and Indigenous Knowledge Systems

Improved decision-making on climate issues



Knowledge of indigenous peoples & local communities

Scientific knowledge

13 CLIMATE ACTION

Modalities

United Nations Educational, Scientific and Cultural Organization

LiNKS Local and Indigenous Knowledge Systems

1. Support to communities
2. Global Conferences to share lessons learned on indigenous knowledge and adaptive practices.
3. Reviews of literature on indigenous knowledge for climate change assessment processes (IPCC).
4. Dialogue Workshops for face to face exchanges between indigenous knowledge holders and scientists; Platforms for engaging with decision-makers – national, sub-national.
5. Transdisciplinary Observatories for joint observations and knowledge co-production.

6. Partnerships with indigenous peoples but also with UNFCCC (NAPs), IPCC, WMO

Reflections

- A variety of activities are needed across the scales (local, national/subnational, regional, global)
- A mechanism that brings all stakeholders together in active engagement – indigenous knowledge holders and their communities, scientists, governments
- Activities carefully tailored to the different contexts and scales of engagement – there is no one size fits all

United Nations
Educational, Scientific and
Cultural Organization

LiNKS
Local and Indigenous
Knowledge Systems

"If you want to understand what is happening in the lowlands you have to go to the highlands to have a better view of what is happening down there.

The same thing happens if you want to understand weather: you need to climb on the shoulders of elders to understand it".

Afar woman

Questions?
Jen Rubis j.rubis@unesco.org
www.unesco.org/links
www.climatefrontlines.org

13 CLIMATE ACTION