

Framing the issue

Why support African research on adaptation to climate change?

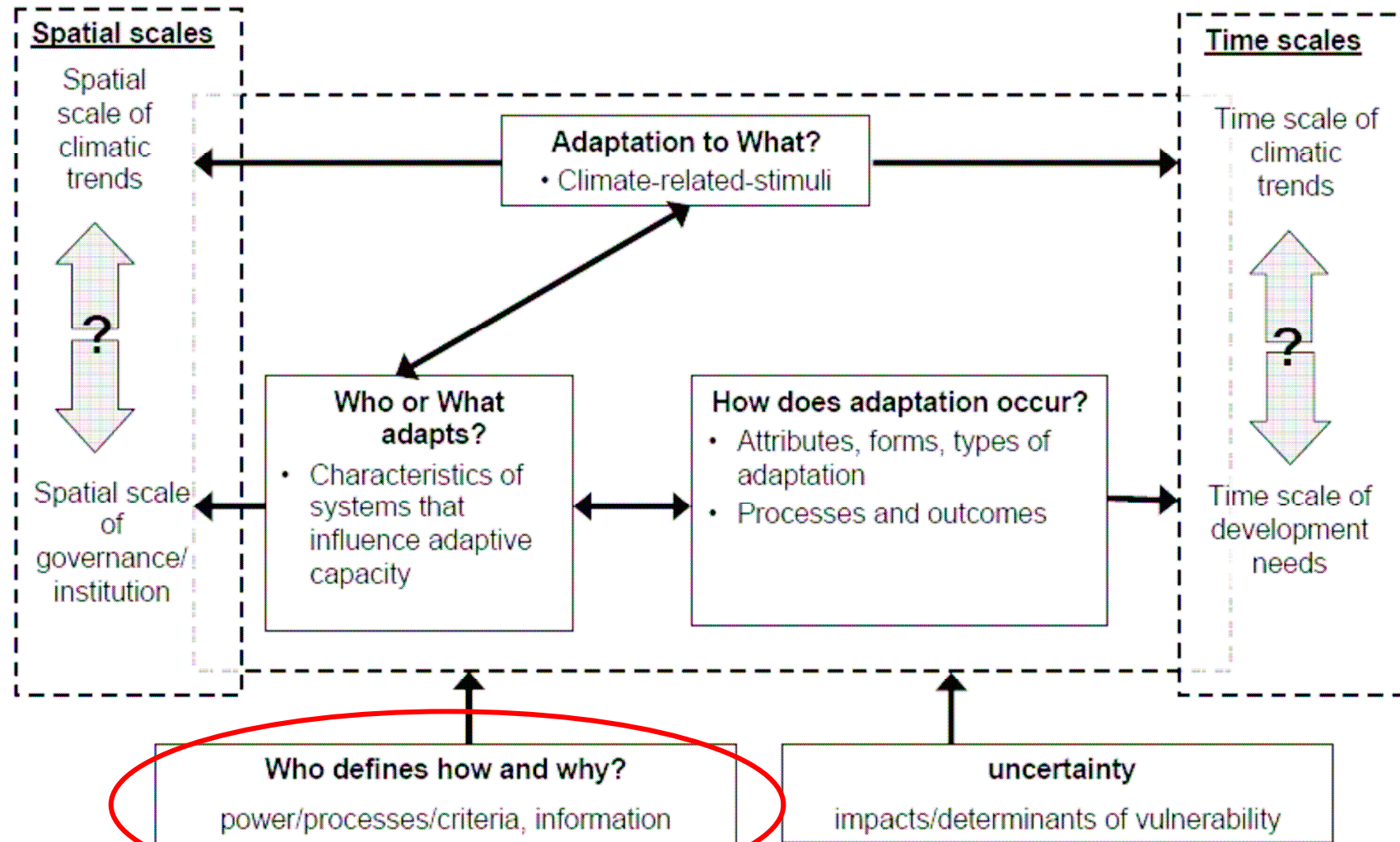
Workshop: Adaptation to Climate Change: Strengthening Capacities in Africa.
Bonn, 26 - 27 November 2008, German Development Institute and Stockholm
Environment Institute

Britta Horstmann

Bonn, 27.11.2008



I. Research and analysis are key to implementation

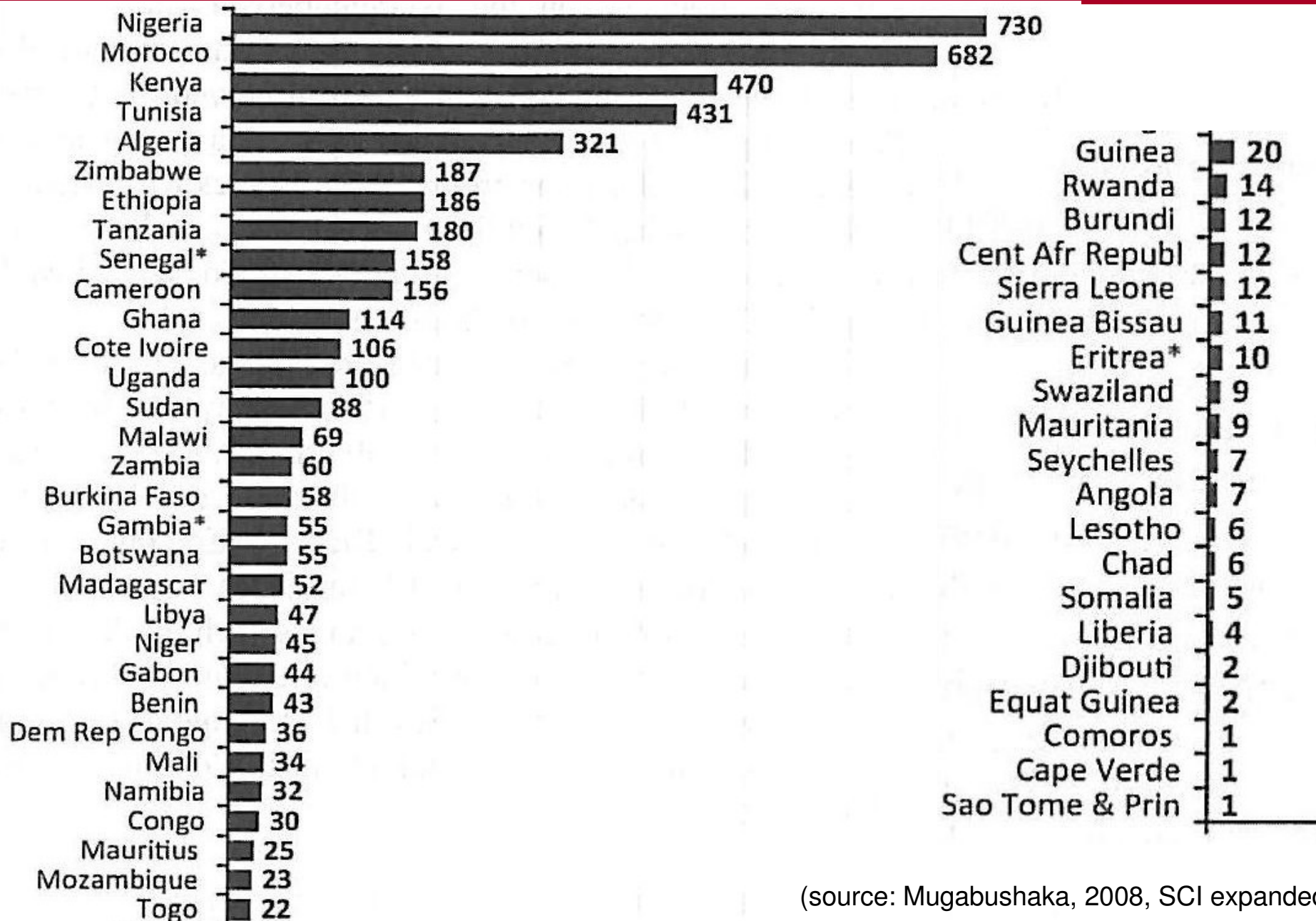




II. Scientific output of African countries is low

- Articles from Sub-Saharan Africa accounted for less than 1% of the world output, decrease of 7% between 1988 and 2003
(science/engineering articles, source: US National Board, 2008)
- Analysis on Scientific articles of 51 African countries 1990-2003 (science/engineering):
 - on average each of those countries produced 93 scientific articles/year
 - Nigeria/ Morocco/ Kenya/ Tunisia accounts for half of all publications

(source: Mugabushaka, 2008, SCI expanded database)



(source: Mugabushaka, 2008, SCI expanded database)



III. Political pressure – how to support adaptation under the UNFCCC?

- Nairobi Work Programme ends in 2010
- Regional centres and networks are mentioned in past decisions and are proposed for a future framework

=> operationalisation?



Supporting Research on Adaptation to Climate Change through the UNFCCC

Workshop on Adaptation to Climate Change:
Strengthening Capacities in Africa
Bonn, 27 November 2008

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Commitments under the UNFCCC

Article 4.1

- f) Undertake Impact assessment
- g) Promote and cooperate on Research and systematic observations
- h) Exchange scientific, technological, technical, socio-economic and legal information
- i) Promote and cooperate in education, training and public awareness
- j) Communicate to the COP information on these commitments in accordance with Article 12.1 of the Convention (**national communications**)



Commitments under the UNFCCC

Article 5

- Parties to support:
 - Int. programmes, networks, organizations in defining, conducting, assessing & financing research & systematic observations
 - Strengthen systematic observations and national scientific & technical research capacity, **particularly in developing countries**



Adaptation issues in National Communications

Non-Annex I Parties report (in accordance with agreed guidelines)

- the scope of their V&A, including vulnerable areas
- the description of approaches, methodologies, tools (scenarios and uncertainties)
- the vulnerability to impacts of, and adaptation to, climate change in key vulnerable areas — “direct and indirect effects” allowing for an “integrated analysis”
- the evaluation of strategies and measures for adapting in key areas of the “highest priority”
- the policy framework such as **NAPAs** for LDC for developing and implementing adaptation strategies and measures



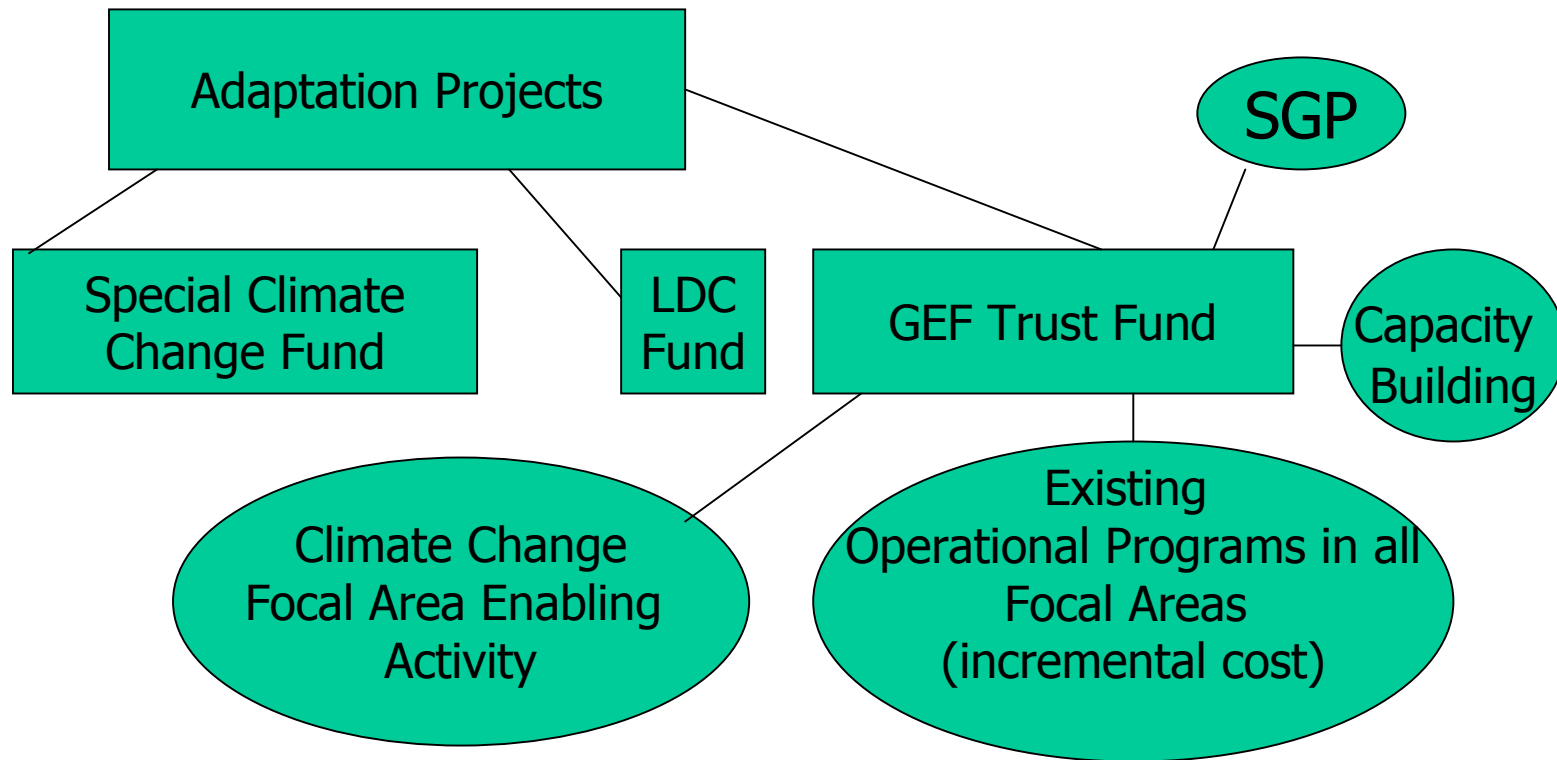
Adaptation issues in National Communications

Non Annex I Parties Reporting

- Parties may include information on opportunities for the implementation of adaptation measures, including pilot and/or demonstration adaptation projects being undertaken or proposed.
- Parties may also provide information on barriers to the implementation of adaptation measures.
- Parties may include, as appropriate, information on how **support programmes from Parties included in Annex II** to the Convention are meeting their specific needs and concerns relating to vulnerability and adaptation to climate change.



Funding and technical support for Adaptation through the GEF



Source - GEF

Recent Mandates for Research

Mandate from COP (9/CP.11)

SBSTA to regularly consider research needs and systematic observation to:

- Inform Parties about on-going and planned activities on climate change research by the regional and international research community
- Communicate Parties' views on research needs and priorities to the scientific community

SBSTA:

- Established a **Dialogue on Research** to enhance communication between Parties and research community (regional & international research programmes & organizations: ESSP, WCRP, IGBP, IHDP, START, APN, IAI, and IPCC)
- Discussions focus on developments in research activities relevant to the needs of the Convention, including:
 - emerging scientific findings, research in response to key uncertainties by IPCC, research planning, priorities & gaps, research capacity building activities etc.
- SBSTA emphasized the need **to enhance research aimed at supporting adaptation.**

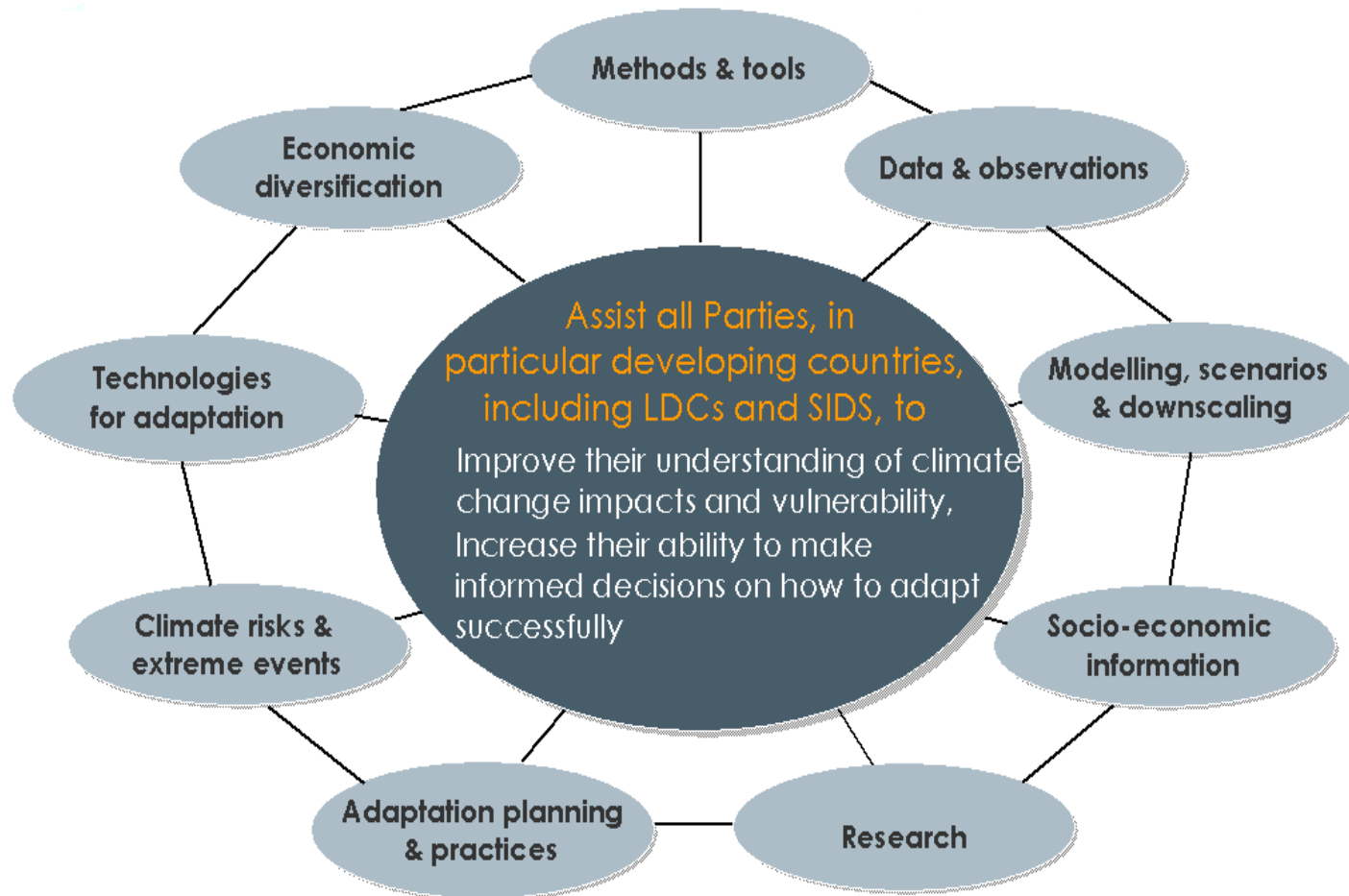


Nairobi work programme on impacts, vulnerability and adaptation to climate change (NWP)

- NWP: **global framework on adaptation** involving all Parties, over 120 intergovernmental and non-governmental organizations, the private sector, communities and other stakeholders
- 5-year programme under SBSTA (2005 – 2010)
 - 1st phase completed in June 2008 (SBSTA 28)
 - 2nd phase: June 2008 – Dec 2010 (SBSTA 33)
 - 2010, COP 16: completion of NWP
- Focus on scientific, technical and socio-economic issues related to adaptation, taking into account current and future climate change and variability
 - **Serves as a platform for dissemination of scientific&technical knowledge and practical experience**



NWP — areas of work & objectives



NWP: Data and observations theme

Objectives

- **improve collection**, management, exchange, **access to** and use of observational data and other relevant information on current and historical climate and its impacts
- **promote improvement of observations**, including the monitoring of climate variability

Activities - 1st phase of the NWP

- Workshop on Methods and tools, and on data and observations: March 2007, Mexico, in collaboration with WMO



NWP: Data and observations theme (cont.)

Recommendations workshop/call for action (examples)

- Define set of data and information needs for adaptation, identifying essential variables specific to impacts & vulnerabilities
- Identify minimum network **for adaptation**, using existing structures and international agreements
- Increase awareness of existing data, e.g. through user forums, countries climatic and non-climatic data
- Create regional web-based databases (e.g. for vulnerability assessments)
- Data recovery (improve predictions)
- Develop dialogue and information sharing between providers and users in the various sectors
- Address barriers to the dissemination and exchange of data.



NWP: Second phase – new activities

- Greater emphasis on *national* and **regional** actions (focus on education, training, awareness)
- Increase consideration of **calls for action** to facilitate activities towards gaps & needs identified at international, regional, national levels
- Continue to encourage **Action pledges** in response to calls for action or other NWP activities
- Promoting **regional centres** and **networks**: methods and tools; data and observations; modelling & downscaling
 - **technical workshop** on the role and collaboration of regional centres & networks (before June 2010)
- UNFCCC secretariat to provide links on website to existing efforts on terrestrial, atmospheric & oceanic data and climatic and non-climatic data&information
- Particular emphasis: Adaptation planning and practices; economic diversification
- Further work on climate-related risks and extreme events and risk assessment (sustainable development context / integration into national programmes) (technical papers in 2008, technical workshops in 2009, 2010)



Research under the Nairobi work programme (NWP)

Objective:

- Promoting **research on adaptation options** and the development and diffusion of technologies, know-how, and practices for adaptation

In addition:

- ➔ contribute to efforts to analyze opportunities & ways to promote research on **adaptive capacity**

Mandated activities during the 1st phase of the NWP:

- Synthesis report on ongoing and planned adaptation research and adaptation research needs (FCCC/SBSTA/2007/12)
 - ➔ based on views from Parties & relevant organizations (incl. updated information from WCRP, START & others)



NWP Research theme – Preliminary outcomes (*excerpts*)

Identified gaps and needs re understanding **impacts&vulnerabilities**:

- Reduce uncertainty in the sensitivity of the climate system
- Enhance connection between General Circulation Models and regional models to improve performance of regional CC models
- Enhance validation of climate models with observations
- Enhance understanding the size and frequency of extreme events
- Improved tools for integrated assessments

Gaps and needs re **adaptation planning&practices**

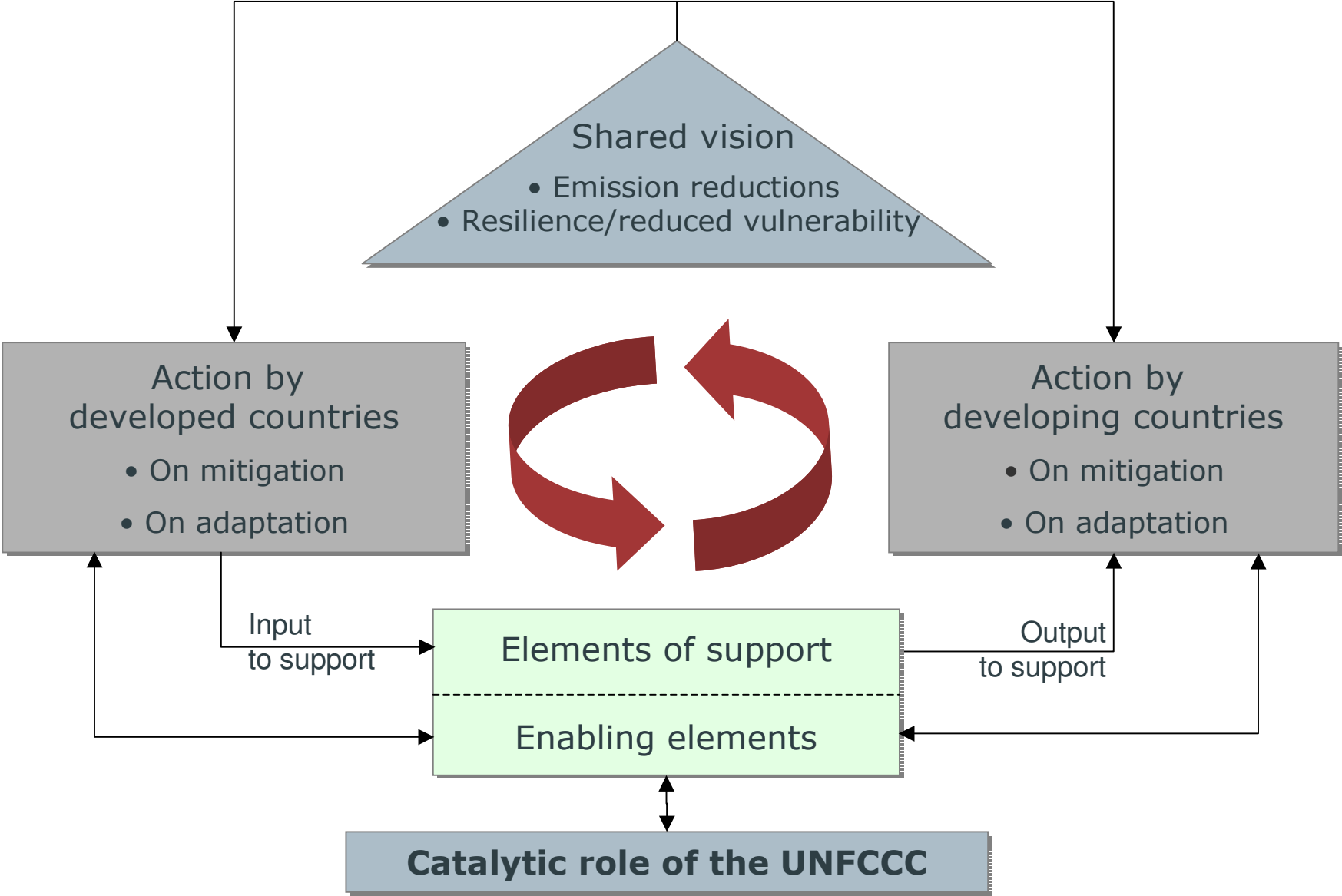
- Understanding & reducing economic, technical social & institutional barriers to adaptation
- Better understanding of adaptation options (incl. Costs, benefits, trade-offs)
- Adaptation scenarios for different GHG stabilization levels and assumptions

Suggestions for enhancing **research on adaptation**

- Increase of cross-regional cooperation and resources (institutional, technical, human etc)
- Need for integrated approaches (sustainable development)
- Enhance utilization of research results, e.g. by mainstreaming into policy - processes



The Bali Action Plan



Views on future discussions

- A document with ideas and proposals from Parties and organizations will be presented at Poznan
- It is based on the elements contained in paragraph 1 of the Bali Action Plan (BAP)
- Consists of five chapters
 - **Shared vision** for long-term cooperative action
 - Enhanced national/international action on **mitigation of climate** change
 - **Enhanced action on adaptation**;
 - Enhanced action **on technology development and transfer** to support action on mitigation and **adaptation**; and
 - Enhanced action **on the provision of financial resources** and investment to support action on mitigation and **adaptation** and technology cooperation.
- **Research is an issue highlighted by Parties**



Views on future discussions

Shared vision for long-term cooperative action

- A long-term global goal is needed: it can inform investment and research decisions by the private and public sectors

Adaptation

- Indicators and benchmarks that guide resource and research allocations are important, particularly in the area of adaptation and vulnerability assessments
- International, regional and national adaptation research and technical support centres are needed to deliver information and training, **and regional centres of excellence should be established to share information on research and capacity building**
- The creation, under the Convention, of adaptation partnerships among companies and research institutions of developed and developing countries for adaptation would be a useful tool for enhanced action
- **Enhance research on adaptation, including that based on ecosystem-based approach strategies and the role of local communities**



Views on future discussions

Financial support

- Building upon the research, and through developing adaptation-related vulnerability indicators, it is important to examine measures to enable technology transfer and financial assistance **in a measurable, reportable and verifiable manner**
- Financial support should be directed at research on climate science
- A need to fund **domestic research, development and innovation in developing countries**, as it is a means for building local capacities and using local knowledge.



Views on future discussions

- Technology development and transfer
 - Cooperation on research and development of current, new and innovative technology, including win–win solutions is needed (a view of many of the Parties)
 - A need to increase technology deployment and enhancing technology research and development in key sectors
 - Technology cooperation could contribute to removing barriers that are specific to certain sectors
 - Delivering information and training through networks and regional centres could assist Parties to **build endogenous capacity for the research, development and transfer of adaptation technologies**





Thank you

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