

Annex 3: Expectations from the High-Level Segment
(as modified by the WIOC-1)¹

- **Advancing Climate Information and Prediction Science**
 - *Developing a statement of the current climate system and how it will change on timescales up to multi-decadal.*
 - Promoting the development of seasonal to inter-annual to multi-decadal climate information and prediction science;
 - *Enhancing our understanding of the needs for climate information and prediction by the socioeconomic Sectors;*
 - Facilitating a global infrastructure for strengthening regional and national capacity for a seasonal to inter-annual to multi-decadal prediction system.
 - *Promoting the free and open exchange of past, present, and future climate data and ensuring sustained observing systems;*
 - *Promoting the development of seasonal to decadal assessment and prediction science;*
 - *Promoting (Facilitating) infrastructure and best practices to strengthen regional capacities for seasonal to decadal climate information systems.*

- **Embedding Climate into Hazard Early Warning Systems / The Climate Dimension of Hazard Early Warning Systems**
 - Establishing the mechanisms and opportunities for sharing climate information and prediction products;
 - Developing an effective climate Early Warning System, e.g., by recommending a menu of practical response actions to climate risks *on timescales up to multi-decadal*, including the use of indigenous practices of early warning.
 - *Establishing the mechanisms and opportunities for sharing climate information and products to improve existing hazard early warning systems*
 - *Developing or improving Climate Early Warning Systems on seasonal to multi-decadal timescales.*

- **Applications and Socio-economic Benefits of Climate Information and Prediction**
 - Developing seasonal to inter-annual climate information and prediction goals for WMO, its Members, and public and private sector entities;
 - *Climate information and prediction products as a tool for disaster risk reduction and for adaptation to climate variability and change;*

¹ Modifications by the WIOC-1 are given in italics.

- Defining strategies for the enhancement of application of climate information and prediction products for climate risk management;
- *Climate risk management strategies and information needs;*

- **Mainstreaming Climate Information for Development**

- Strengthening the regional and national response systems to climate variability, especially in the developing and least developed countries frequently affected by natural disasters caused by climate extremes;
- Extending available climate products to include annual prognostic analyses at the regional / global levels as well as to enhance the use of existing products by decision makers in key sectors throughout society;
- Optimising the global, regional, and national institutional mechanisms for using climate information and predictions in decision-making.
- *Enhancing the integration of climate information and prediction products into sustainable socio-economic development.*

Annex 4: Results from the discussions of the Program Segment (science agenda) Breakout Group

| MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY |
|---|--|---|--|--|
| <p>OPENING PLENARY</p> <ul style="list-style-type: none"> Welcome Addresses by Hosting Government, WMO and Participating Sponsors Keynote Addresses <p>Vision Paper</p> | <p>Climate Risk Management Strategies and Information Needs</p> <p>Climate Dimension of Hazard Early Warning Systems</p> | <p>MORNING SESSION</p> <p>Advancing climate information and prediction science</p> <p>Mainstreaming Climate Information</p> <ul style="list-style-type: none"> - Sus. Development - Institutions - Economic Dim. | <p>Recommendations:</p> <p>Framework for (regional user need driven) Climate Services</p> <ul style="list-style-type: none"> - Data/Information - Computations - Organisations (curricula, case studies etc.) | <p>MINISTERIAL MEETING</p> <ul style="list-style-type: none"> • Presentations by Ministers/Heads of Delegation • Presentation by Session Chairs |
| <p>User / Provider perspectives from "organisations"</p> <p>(UNFCC, FAO, WHO, GEO, ...)</p> <p>"panel discussion"</p> | <p>Session A: Understanding the future: Longer term prediction</p> <p>Session B: Hazard Early Warning Systems and Emergency Response Systems for climate: The roles of international, regional, and national climate centers and response agencies</p> <p>Session C: Water Resources</p> <p>Session D: Climate information for society: Mainstreaming climate information to address the Millennium Development Goals</p> <p>Theme 1-4 Sessions</p> | <p>Session A: Economic and Social impacts of climate variability and change</p> <p>Session B: Economic and Social impacts of Hazard Early Warning Systems for climate</p> <p>Session C: Vulnerable Ecosystems</p> <p>Session D: Future directions for providers of climate information and predictions: Defining, adapting, and optimizing institutions to future needs for using climate information and products</p> <p>Theme 1-4 Sessions</p> | <p>MINISTERIAL MEETING</p> <ul style="list-style-type: none"> • Presentations by Ministers/Heads of Delegation • Presentations by Session chairs | <p>MINISTERIAL MEETING</p> <ul style="list-style-type: none"> • Discussion and Signing of Declaration |

WMO
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Discussions of climate science will include by their nature, the issue of predictability.
Long term climate changes of 25 to 30 and of 50 year timescales will be considered as a way to investigate the effects of changes in climate on inter-annual predictions.

Climate Service - Climate Research

Products
Assessments, Predictions, Scenarios

Synthesis
Statistical, Reanalysis, Multi-Model

Models
Simple - Complex
Numerical

Observations
In-Situ, Proxy,
Remote Sensing

Society

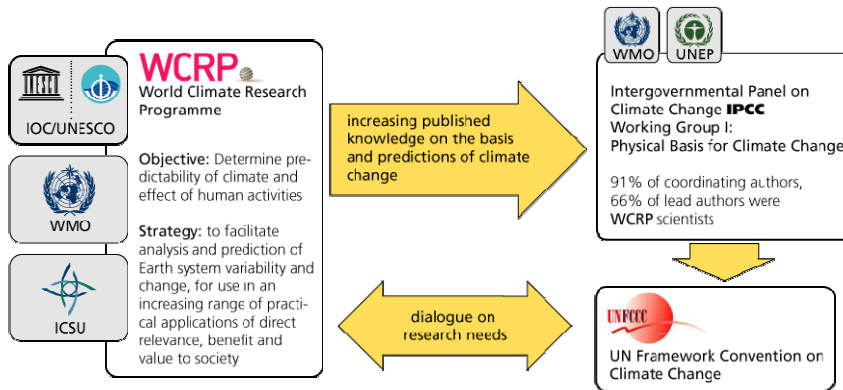
Policies
Decisions
Actions

Environment

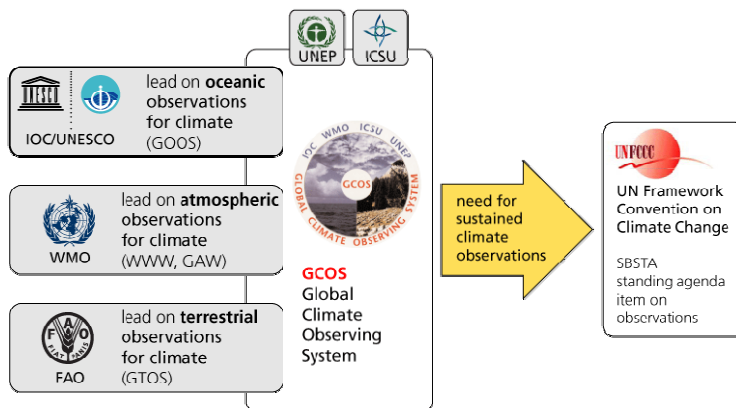


Annex 5: Results from the discussions of the International Linkages Breakout Group

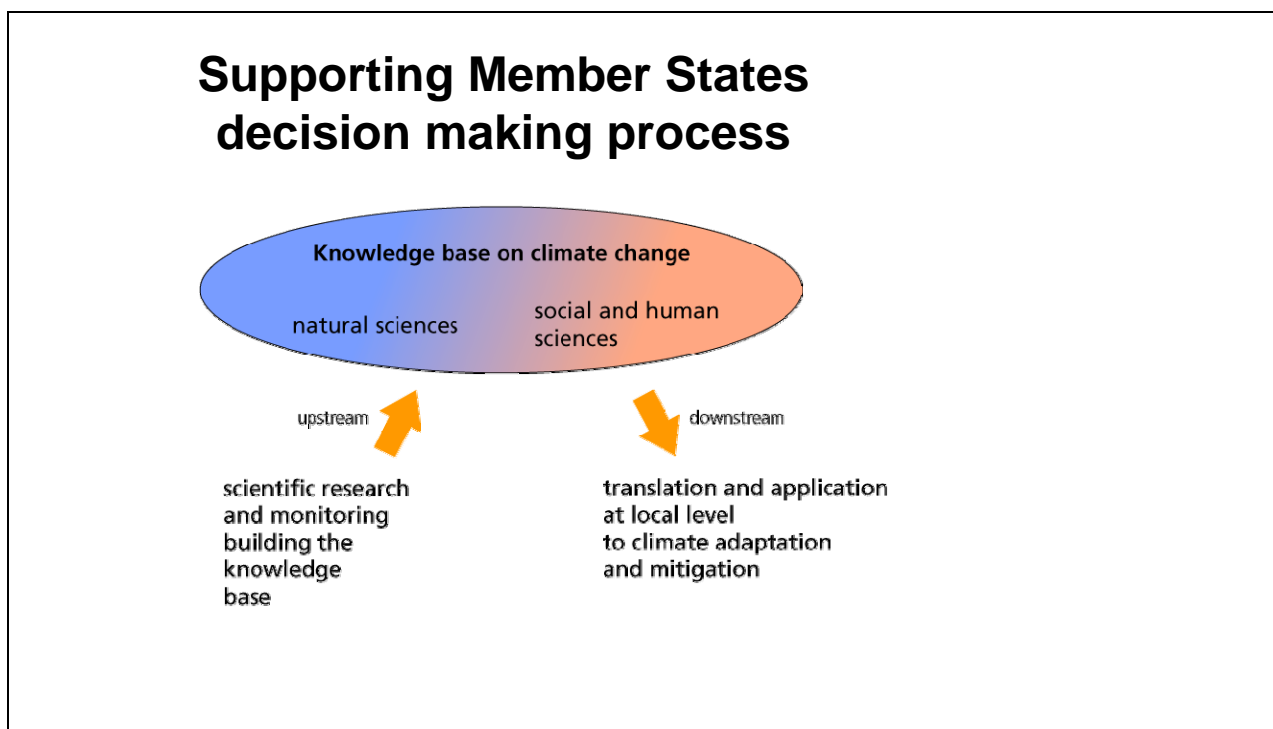
Creating the Knowledge Base



Creating the Knowledge Base



Results from the discussions of the International Linkages Breakout Group
(Continued)



Opportunities offered for international linkages by WCC-3:

- High level political engagement with the climate regime (UNFCCC) and the Bali Road-map.
- All relevant actors are involved and engaged in the climate regime and the Bali agenda.
- A significant body of knowledge has been accumulated on climate, climate variability and climate change. This knowledge is available to be used.
- Moving from discrete assessments of the state of climate to a continuous, real or quasi-real time flow of weather and climate information, relevant for policy decisions.
- Development of Weather and Climate related “services”

Challenges for the WCC-3 internationally:

- A large body of international commitments and engagements have not translated into actions at the country level, building a huge credibility gap.
- A wide variety of users, with specific needs occurring in different contexts (natural, institutional).
- No obvious, (single?) mechanism exists to connect available demand with the offer available.
- Each sector is planning independently its own response to climate change and obtaining the information they need likewise (major coordination gap).
- Each user needs the information tailored (by somebody) to specific needs.

Needed Commitments for the WCC-3

1. Participating Organizations (UNEP, FAO, UNCBD, UNCCD, UNDP, UNWTO, WHO, UNESCO-IOC, ISDR, IFRC, IUCN, GCOS, IRI) will take responsibility of articulating their constituencies' priority needs as they relate to climate science and the associated knowledge base.
2. A limited number of white-papers (to be determined), summarizing the highest priorities per major sectors, to be prepared and circulated to the conference participants to inform their contributions to WCC-3.
3. Scientific contributions/sessions to WCC-3 should have/produce, as much as possible, a clear policy advise "take-home" message.
4. Define (and organize?) a series of continuous dialogues between the different types of partners (data and information providers and users), to identify the mechanisms of delivering the new services and to build capacity to use them.