CONCEPT NOTE

Introduction

As understanding of the climate system grows and as society becomes more aware of the potential benefits from use of this knowledge, communities are seeking the tools and knowledge for climate risk management (CRM) including for adaptation, and will increasingly expect that these services are: accessible, dependable, usable, credible, authoritative, responsive, flexible and sustainable.

Recognizing the need to strengthen the production, availability, delivery and application of science based climate monitoring and prediction services ensuing from the above, the World Climate Conference – 3 held in Geneva from 31 August to 4 September 2010, proposed to establish a Global Framework for Climate Services (GFCS). Subsequently, the 16th World Meteorological Congress (Cg-XVI, Geneva, Switzerland) decided to support and facilitate the implementation of the GFCS as a priority of the organization. The Commission for Climatology is promoting this event on CRM with the aim to guide the establishment of procedures and processes to support GFCS operations and facilitate the implementation of the GFCS.

The GFCS is designed to mainstream climate science into decision making at all levels and help ensure that every country and every climate-sensitive sector of society is well equipped to access and apply relevant climate information, enabling an adjustment of planning and decisions to optimize the given situation. The application of climate services must therefore involve close interaction between all stakeholders including the providers and the users, and requires concerted multi-disciplinary efforts.

The overarching aim of this Symposium is to help both providers and users of climate information in the development and effective use of information on climate variability and change, in an operational ‘no regrets’ sense, in minimizing climate-related risks and maximizing any opportunity that may arise, the essential principle of CRM.

Objectives of the Symposium

1. Define a concept of climate risk management pertinent to WMO and partnering agencies, to underpin implementation and operation of the Global Framework for Climate Services (to include elements such as: user requirements; establishing baselines for climate risk; assessing future climate risks and opportunities; advice on adaptation; requirements for communications, feedback and process improvement, etc.);

2. Identify and assess existing risk management techniques and coping strategies in use in different sectors, for dealing with extreme weather, climate and water events; lack of information on and/or understanding of climate variability and change; inadequate understanding of user’s susceptibility;
3. Identify challenges to risk management and adaptation, particularly in developing countries;

4. Identify best practices in CRM in use in various sectors;

5. Identify the requirements for weather, climate, water and environmental information and products used in successful CRM techniques to, inter alia, help characterize the risks to and opportunities for the sectors for improved decision making;

6. Develop recommendations for extending the concept of CRM to WMO Members and in developing effective operational risk management strategies at national scale.

Expected outcomes

Senior experts in the fields of agriculture, water resources, health and disasters, and with global expertise in operational CRM will be invited to prepare authoritative discussion papers to address the above objectives. In addition to presentations by experts, the programme will feature ample opportunity for discussion of the sector-specific and multi-disciplinary aspect of CRM. Following the Symposium, the discussion papers and recommendations will be published, and should serve as a valuable source of information to WMO Members and partners for consideration in designing and implementing operational activities under the Global Framework for Climate Services.

Recommendations from the Symposium will be considered at the session of the Commission for Climatology Task Team on CRM (immediately following the Symposium) and will directly contribute to the development of the concept paper on climate risk management, collection of examples of best practices in CRM in various sectors and a strategy document outlining the CRM concept to Members, along with proposals for development and implementation of relevant training outreach initiatives etc.

Structure of the Symposium

1. Opening and welcome

2. Organization of the meeting

3. Key issues for Climate Risk Management
   a. the Global Framework on Climate Services
   b. Operational aspects of CRM
   c. Longer-term aspects of CRM
   d. Round table ‘warm-up’ discussions on stakeholders and partners and their requirements; vulnerability and susceptibility to climate variations and change; timescales and components of CRM; current short-term and long-term CRM practices at global, regional and national scales

4. Managing climate risks and opportunities in the agricultural and food security sectors

5. Managing climate risks and opportunities in the water resources sector

6. Managing climate risks and opportunities in the health sector
7. Breakout groups to discuss topics such as:
   a. Understanding and reducing risks associated with climate extremes and hazards
   b. Multi-disciplinary aspects (food water health and hazards) of CRM
   c. Roles of various stakeholders and partners (NMHSs, academia, learned societies, private sector, etc)
   d. Setting a baseline (survey?)

8. Key findings and recommendations:
   a. CRM elements, range, scope, contributors and users
   b. Criteria for identification of best practices, and collection of appropriate examples
   c. Implementing CRM and supporting it through improved climate information, products and services

9. Closing
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PROGRAMME

Meeting Co-chairs: Dr Deborah Hemming (UKMO) and Dr Rodney Martinez (CIIFEN)

MONDAY, 10 OCTOBER 2011

SESSION 1: OPENING SESSION
Chair: R. Martinez, A/Director, CIIFEN

0900 Welcome addresses

  Dr. Pilar Cornejo,
  National Secretary of Risk Management, Government of Ecuador

  Mr Carlos Naranjo Jácome, Permanent Representative of Ecuador with WMO

  Leslie Malone (WMO)

  Rodney Martinez (CIIFEN) and Deborah Hemming (UKMO), Co-chairs

0925 Introduction of Participants: tour de table

0940 Working arrangements
  Host, Rodney Martinez (CIIFEN)

0945 Group photo
### SESSION 2: BACKGROUND AND OBJECTIVES
Chair: Glenn McGregor (U. Auckland)

<table>
<thead>
<tr>
<th>Time</th>
<th>Session Details</th>
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<tbody>
<tr>
<td>1000</td>
<td>The Commission for Climatology and its Panels</td>
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<tr>
<td></td>
<td><em>Rodney Martinez</em> (CIIFEN)</td>
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<tr>
<td>1015</td>
<td>The Global Framework for Climate Services: Overview and current status</td>
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<td><em>Leslie Malone</em> (WMO)</td>
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<td>1030</td>
<td>Overall objectives and expectations from the session</td>
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<td><em>Deborah Hemming</em> (UKMO)</td>
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<td>1045</td>
<td>Coffee Break</td>
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<tr>
<td>1100</td>
<td>Key issues* related to defining CRM: setting the stage</td>
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<tr>
<td></td>
<td><em>Deborah Hemming</em> (UKMO)</td>
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<tr>
<td>1115</td>
<td>Discussion</td>
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<tr>
<td>1230</td>
<td>Lunch break</td>
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### SESSION 3: GLOBAL AND REGIONAL CLIMATE RISK MANAGEMENT
Chair: Roger Pulwarty (NOAA)

<table>
<thead>
<tr>
<th>Time</th>
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<tbody>
<tr>
<td>1400</td>
<td>CRM: perspectives from South America</td>
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<tr>
<td></td>
<td><em>Rodney Martinez</em> (CIIFEN)</td>
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<td>1420</td>
<td>CRM: perspectives from Africa</td>
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<td><em>Mohammed Kadi</em> (ACMAD)</td>
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<td>1440</td>
<td>CRM: perspectives from Asia</td>
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<td><em>G. Srinivasan</em> (RIMES)</td>
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<td>1500</td>
<td>Regional and global CRM activities for development: Ecuador Pilot Project</td>
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<td><em>Nury Bermúdez</em> (UNDP)</td>
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<td>1520</td>
<td>Regional and global CRM activities for disaster risk reduction and resilience</td>
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<td><em>Jennifer Guralnick</em> (ISDR)</td>
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<tr>
<td>1540</td>
<td>Coffee Break</td>
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<tr>
<td>1600</td>
<td>CRM: Use of Climate Change Knowledge, Information and Tools</td>
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<td><em>Habiba Gitay</em> (World Bank)</td>
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<td>1620</td>
<td>Climate Risk Management and the World Food Programme</td>
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<td><em>Ian Robinson</em> (WFP)</td>
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<td>1640</td>
<td>Regional and global CRM activities for health</td>
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<td><em>Alexander von Hildebrand</em> (WHO)</td>
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<td>1700</td>
<td>Discussion and wrap-up by Chair</td>
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<td>1730</td>
<td>Close of day 1</td>
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*Inter alia: Stakeholders and partners and their requirements; Vulnerability and susceptibility to climate variations and change; Timescales and components of CRM; Operational aspects of CRM; current short-term and long-term CRM practices at global, regional and national scales*
SESSION 4: MANAGING CLIMATE RISKS AND OPPORTUNITIES IN THE AGRICULTURE, HEALTH AND WATER SECTORS
Chair: G. Srinivasan (RIMES)

Perspectives on, inter alia, practical matters; successful (real) cases of managing hazards and climate extremes and longer-term climate change; country level experience; good practices; the big divide between need and practice; major challenges; essential priorities (where not to fail); roles of partners/stakeholders; ….

0900 Strategy for climate and health within the Climate Change Adaptation framework in Ecuador
Dr Mercy Borbor (Vice Minister of Environment, Ecuador)

0915 Climate Risk Management in Plantations under the Humid Tropics
Prasada Rao (India)

0930 Methods for engaging stakeholders in develop climate risk management systems – Lessons learned by the Southeast Climate Consortium
Keith Ingram (USA)

0945 Climate Risk Management in Agriculture and Water Sectors in West-Africa, through rainy season monitoring and Early Warning
Abdou Ali (Niger)

1000 Preliminary advances in Climate Risk Assessment in China Meteorological Administration
Gao Ge (China)

1015 Climate Risk Management through Structural Adjustment and Regional Relocation: A Case of Rice Industry in Australia
Shabbaz Mushtaq (Australia)

1030 Coffee Break

1100 Managing Climate Risks on the Colorado River
Balaji Rajagopalan (USA)

1115 Use of climate information in agriculture: example of dialoguing with farmers around seasonal forecasting products : Kaffrine in Senegal
Ousmane Ndiaye (Senegal)

1130 Heat and human health in a climate risk management framework
Glenn McGregor (NZ)

1145 Early warning and climate services: Informing CRM in changing environments
Roger Pulwarty (USA)

1200 Summary by the Chair, and general discussion

1230 Lunch Break