PMC-7 Agenda Item 14.2

Guiding Principles for Observations, Communications and ICT Infrastructures

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Purpose of the Paper

1. To inform the meeting on the common challenges that need to be considered related to the investment and operation of basic observing and communications infrastructure supporting the delivery of services across the region
2. To propose a forum across the PMC panels to engage and discuss observing and communications infrastructure priorities, development and crosscutting issues.
3. To seek the meeting's guidance and invite comments and endorsement of the recommendations of the PICI Panel.

Background

- Sustainable hydro-meteorological products and services require robust infrastructure in observing, communications and ICT infrastructure
- For many years this foundational infrastructure within the region has suffered from unreliable or intermittent investment and support
- Major new infrastructure projects introduced to the region have typically not been funded beyond their project implementation timelines. This has resulted in significant new infrastructure maintenance costs being expected from, or imposed on, the recipient governments or NMH Services (NMHS).

Guiding Principles

When considering the need for a regional approach to the GBON Implementation plan, insights from recent Peer Advisor activity undertaking SOFF Assessments in the region point to a need for a set of guiding principles

Few guiding principles for consideration;

- Standardization guidance
- Selection of communication technologies for regional use with SLAs that meet the special characteristics of individual countries,
- Adoption of robust ICT systems that leverage existing in-region and national capabilities.
- Guidance on systematic cost analysis, budget planning and provision for core system monitoring and maintenance
- Develop and implement robust methods for cost benefit analyses of core services
- Guidance for training on observing technologies and communication infrastructure, quality management, alternative communication infrastructure and connectivity redundancy options
- All observing and monitoring data collected at the national and regional level is stored in the region and at the national level.
- Guidance for data sovereignty, archiving and security policies and procedures.
- Encourage development of tailored Accredited training on observing technologies and communication infrastructure

Recommendations 1/2

The Meeting is invited to:

- **Note** that reliable communication infrastructure and observations are the cornerstone to all weather, climate and hydrological forecast and warning services.
- **Recognise** the varying degree of ICT and observing capabilities and resources between countries across the region and the need to tailor and implement appropriate activities accordingly.
- **Recommend** NMHS to apply systematic budget analysis and planning for the maintenance and sustainability of core NMH Communication and Infrastructure services.
- **Recommend** partners and donors to use national and regional analyses to incorporate sufficient funding to support training, maintenance and sustainability of Observations Communication and Infrastructure services

Recommendations 2/2

- **Recommend** the setup of a forum for Inter-Panel engagement and discussion on infrastructure priority development and crosscutting issues across the PMC panels of experts.
- **Recommend** all NMHS, technical partners and donors to adopt quality management standards for observation networks and equipment in alignment with WMO standards (e.g. ISO27001).
- **Recommend** the Secretariat and the Panel Chairs to investigate the development of a regionally relevant Guiding Principles Framework for observing, communications and ICT infrastructures to maximise the value of investments delivered through the Weather Ready Pacific Programme and all other related projects