World Meteorological Organization

Weather • Climate • Water

WIGOS in support of GFCS

Southern Africa Regional Climate Services Workshop

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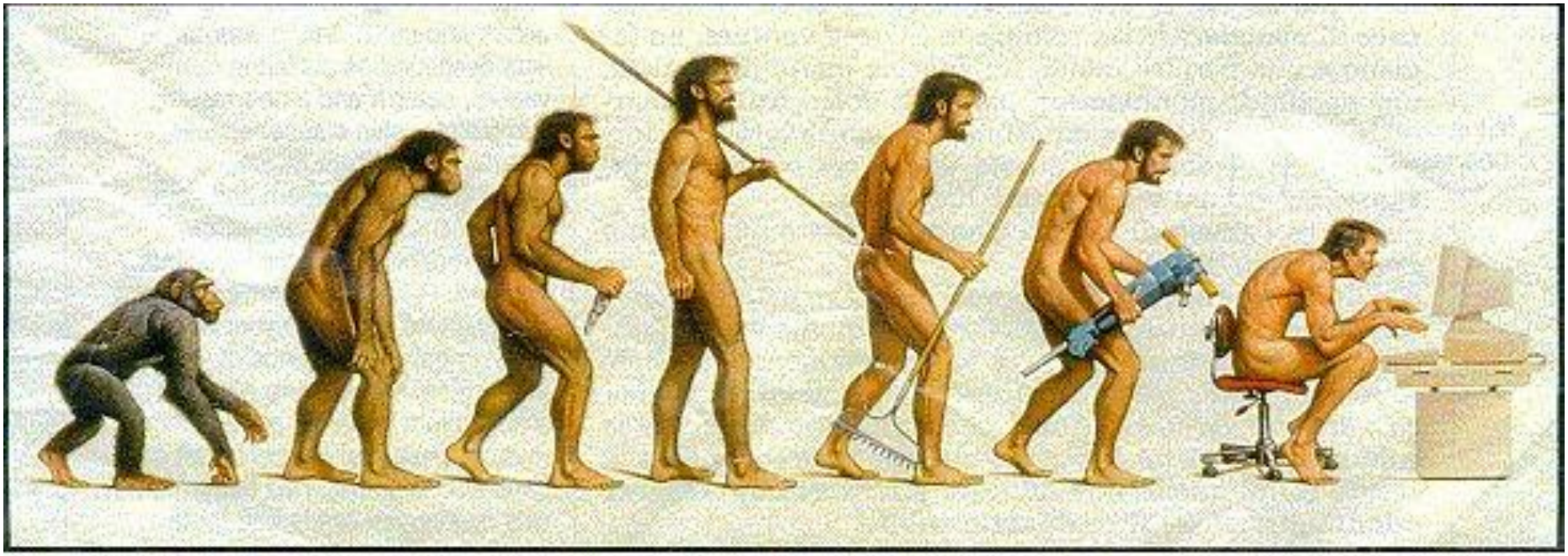
Amos Makarau, President of WMO RAI

Dr. L. P. Riishojgaard, WIGOS-PO



Somewhere, something went terribly wrong

1. What is WIGOS


Other R&D
oceanographic
land use
atmospheric chemistry
and hydrological missions

What is WIGOS?

- An over-arching framework for the coordination and evolution of WMO observing systems and the contributions of WMO to co-sponsored observing systems, i.e.
  - The Global Observing System
  - The Global Atmosphere Watch
  - The Global Climate Observing system
  - The WMO hydrological obsering systems

WIGOS Framework

- At its simplest, the WIGOS framework is about:
  - Documenting and implementing standard and recommended practices and procedures in making and sharing observations;
  - Collaboration & Cooperation & Coordination for efficiency and effectiveness;
  - Integration and interoperability in all senses;
  - Timely delivering observations that meet user needs in a way they can use them;
  - Empowering NMHSs

Why WIGOS?

- Shortcomings of the current situation:
  - Observational networks/systems not sustainable and stable
  - Design and planning not coordinated, leading to both gaps and redundancies
  - Observational standards not respected (lack of compliance)
    - in some cases not articulated
  - Databases covering observational networds not integrated (inconsistent, not compatible) including those of metadata
  - Deficiencies in Quality Management (maintenance, documentation, monitoring, reporting, …),

What is the specific link to GFCS?

- Many observational needs are shared between weather and climate applications, but with somewhat different requirements
  - Through WIGOS, both sets of requirements can be met in an efficient and cost-effective way

Purpose of the National WIGOS Framewrof

- To bring together organisations in Zimbabwe which operate and have their own weather observing systems and share information on, for example, the purpose and type of systems they own, type of data and products;
- To acquaint the other operators with the requirements (e.g., WMO standards) needed to safeguard the integrity of all weather observations in the country;
- To explain the benefits of data sharing (e.g., cost effectiveness, more data, larger technical pool)
- To explain the role and mandate of NHSSs;

WIGOS in support of GFCS

Ensure national and regional coordination includes GFCS representatives

Management of WIGOS Implementation / operation

Collaboration with co-sponsors and partners

To oversee, guide and coordinate WIGOS

To ensure supply of and access to WIGOS observations

Observing system operation & maintenance

Data and metadata management, delivery and archival

To plan, implement and evolve WIGOS component systems

Design, planning and optimised evolution

Quality Management

To facilitate and support the operation of WIGOS

Communications and outreach

Operational Information Resource

Standardization, interoperability & compatibility

Capacity Development

WIGOS in support of GFCS

Management of WIGOS Implementation / operation

Collaboration with co-sponsors and partners

To oversee, guide and coordinate WIGOS

Observing system operation & maintenance

Data and metadata management, delivery and archival

To ensure supply of and access to WIGOS observations

Understand GFCS observational needs (start with GCOS; review & plan network

...nt and evolve ...ent systems

Design, planning and optimised evolution

Quality Management

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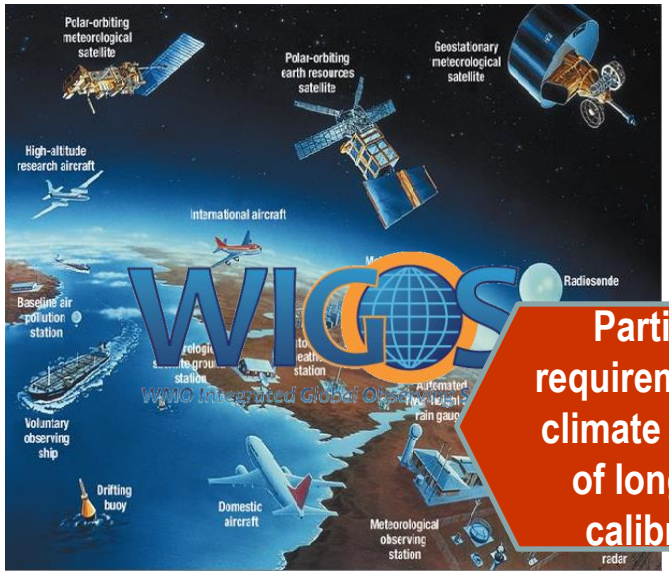

To plan, implement WIGOS components

Design, planning and optimised evolution

Particular requirements for climate in terms of long-term calibration

Quality Management

To facilitate and support the operation of WIGOS

Communications and outreach

Operational Information Resource

Standardization, interoperability & compatibility

Capacity Development

WIGOS in support of GFCS

Management of WIGOS Implementation / operation

Collaboration with co-sponsors and partners

...ee, guide and coordinate WIGOS

Observing system operation & maintenance

Requirements for climate in terms of continuity of records

To ensure supp... WIGOS

To plan, implement and evolve WIGOS component systems

Design, planning and optimised evolution

Data and metadata management, delivery and archival

Quality Management

To facilitate and support the operation of WIGOS

Communications and outreach

Operational Information Resource

Standardization, interoperability & compatibility

Capacity Development

WIGOS in support of GFCS

Management of WIGOS Implementation / operation

Collaboration with co-sponsors and partners

To oversee, guide and coordinate WIGOS

To ensure supply of and access to WIGOS observations

To plan, implement and evolve WIGOS component systems

Observing system operation & maintenance

Design, planning and optimised evolution

Data and metadata management, delivery and archival

Quality Management

Ensure easy access to information on observing systems for GFCS needs

To fac… …t the operation of WIGOS

Communications and outreach

Operational Information Resource

Standardization, interoperability & compatibility

Capacity Development

WIGOS in support of GFCS

Management of WIGOS Implementation / operation

Collaboration with co-sponsors and partners

To oversee, guide and coordinate WIGOS

To ensure supply of and access to WIGOS observations

To plan, implement WIGOS components

Observing system operation & maintenance

Data and metadata management, delivery and archival

Design, planning and optimised evolution

Quality Management

Linked with GFCS capacity development strategy

To facilitate and support the opera

Communications and outreach

Operational Information Resource

Standardization, interoperability & compatibility

Capacity Development

WIGOS in support of GFCS

Management of WIGOS Implementation / operation

Collaboration with co-sponsors and partners

To oversee, guide and coordinate WIGOS

supply of and access to observations

To plan, implement and evolve WIGOS component systems

Observing system operation & maintenance

Design, planning and optimised evolution

Data and metadata management, delivery and archival

Quality Management

Communicate messages about the need to strengthen core observations for GCOS

upport the operation of WIGOS

Communications and outreach

Operational Information Resource

Standardization, interoperability & compatibility

Capacity Development

In conclusion…

- WIGOS:
  - will not fix all problems of current national/regional observing systems/networks;

but

  - will lay down the framework – to allow Members to start addressing the current problems in a:
    - systematic,
    - coordinated,
    - sustainable,
    - efficient & effective way.

The Bottom Line

- The bottom line is each organisation will remain responsible for its observational network, but data can be shared among the members for the benefit of the country