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**Wigos implementation IN REGIONS**

**Status of Regional WIGOS Implementation Plans and Challenges of the WIGOS Implementation in Regions and Member Countries**

(Presented by José Arimatéa de Sousa Brito, Rep. RA III)

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| **Summary and purpose of document**  The document presents a short summary of activities underway or planned, concerning the RA III WIGOS Implementation Plan. It includes the concept of the WIGOS Project for the Southern Part of South America (WIGOS-SAS). It also includes comments on the challenges facing WIGOS implementation in Region III. |

**Action proposed**

The session is requested to note the information and comments provided.

**Reference:** [RA III WIGOS Implementation Plan](http://www.wmo.int/pages/prog/www/wigos/documents.html)

**RA III WIGOS BACKGROUND INFORMATION**

1. The Sixteenth Session RA III held in Asunción, Paraguay, in September 2014, approved the RA III WIGOS Regional Implementation Plan. The Session reviewed the RA-III working structure to include regional mechanisms for WIGOS implementation.
2. It was very fruitful to have the RA III Session, the TECO/RECO and the CBS Session in the Region. It constituted an excellent opportunity to expose WIGOS and other CBS-related issues to experts and managers of RA-III and some from RA-IV, as well as to potential external WIGOS partners.
3. The mentioned events, undoubtedly, contributed to improve the understanding of WIGOS concept in the Region and the recognition of the importance of implementing WIGOS regional components. Now, concrete examples are needed to guide NMHSs at regional and national levels.
4. As an anticipated benefit to the Region, WIGOS is already contributing to increase the amount of observation data available to NMHSs of both RA III and RA IV. Much more data, especially from AWS, are injected into the GTS in both BUFR and TAC formats. Data from other platforms, such as radars and AMDAR, are becoming available
5. Following the approval of RA-III R-WIP, RA-III decided to put in place a strategy to guide its effective implementation through the WIGOS-SAS Project.

**WIGOS-SAS PROJECT**

1. The main objective of the WIGOS-SAS Project is to use the WIGOS framework to establish a joint operational environment, integrating meteorological, climatological and hydrological information generated by different providers and to be used by participating organizations according to their own mandates. While the WIGOS-SAS Project initially involves only the southern part of South America, it aims to be the test bed for wider implementation of WIGOS throughout RA-III.
2. The Project will rely on existing networks and the operating expertise of a number of regional or sub regional entities, including NMHS, power utility companies, state and local government agencies, operating under the framework of the Intergovernmental Coordination Committee for the Plata Basin (CIC), formed by representatives of Governments of Argentina, Bolivia, Brazil, Paraguay and Uruguay.
3. The proposed governance of the WIGOS-SAS Project includes a Project Board, composed by the Permanent Representatives with WMO (PR) of five countries members of CIC, under the chairmanship of the President of RA-III, and a Project Team, composed by experts designated by concerned PRs, under coordination of the Chair of the RA-III Working Group on Infrastructure and Technological Development (WG-ITD).
4. The main phases of the WIGOS-SAS Project include the following steps:

Step 1: Establishment of a Project Team for drafting the Project Implementation Plan (PIP)

Step 2: Drafting the Project Implementation Plan (PIP)

Step 3: Review of the Project Implementation Plan by the Project Board

Step 4: Implementing the Project with CIC participation

Step 5: Operational phase

1. In practice, the Project will bring the current operational activities in the Plata Basin in alignment with the WIGOS Key Activities, part of the RA-III R-WIP. In summary, the Project will:

* Develop detailed integration plans for the existing networks
* Propose collaboration mechanisms involving participating organizations, such as WMO and CIC (There is already a MoU between both)
* Propose adjustment of the existing networks, optimizing distribution, expanding the radar network and inclusion of AMDAR data
* Propose improvements to overall operation and maintenance
* Propose the introduction of common quality control processes and standardization of methods of observations
* Propose increased use of regional WIS facilities, including GISC-Brasilia and DCPC-Buenos Aires
* Propose mechanisms to keep WIR updated (WIGOS Metadata)
* Propose the exchange of best practices of observations through workshops and on the job training

**CHALLENGES OF RA III WIGOS IMPLEMENTATION**

1. NMHS of RA-III have not worked in joint complex projects before. Neither have at their disposal, easy mechanisms to facilitate travel of experts within the Region.
2. Some elements of WIGOS, including regulatory material, are still under development. This, associated with the lack of practical examples, poses additional challenges.
3. The WMO Secretariat should select and focus on at least one champion project per Region, making available technical expertise and limited financial support for few and small coordination meetings.

**Improving the collaboration via TC and RA mechanisms**

1. First, the current efforts to make the relationship between TCs and RAs must be sustained, even improved. The joint sessions in RA-III (CBS-Ext., TECO/RECO, RA-III) contributed very positively in the Region.
2. The WIGOS-SAS Project was exposed to participants of mentioned sessions and may constitute an example to improve collaboration within the Region, as well as with concerned Technical Commissions, (e. g. CBS, CHy). The Project is trying to make use of an existing formal regional collaboration mechanism based on an intergovernmental Agreement involving five countries with common interest in the joint management of water resources and electricity generation.
3. Organizations, such as CIC, have specific objectives and establish their own standards and operational environment, without much consideration, for example, to the WMO guidance and regulatory material. Most of the NMHS of concerned countries had a very limited participation, most of the time only providing observational information and some model outputs.
4. The idea is to improve collaboration by transferring to CIC operational environment the WMO expertise and getting from CIC the sustainability of an integrated operational system. NMHS and the WMO Secretariat are key partners. NMHSs providing data and experts, WMO making available expertise and limited financial support for small coordination meetings.

**CONCLUSIONS**

1. While the WIGOS-SAS seems a complex Project, involving five NMHSs, Water and Energy agencies from 5 participating countries, and international organizations as CIC and WMO, it benefits from a well-established political and operational framework under the Plata Basin Agreement, making it attractive to proponents.
2. The operational framework of the Plata Basin currently manages a very considerable amount of information made available by different institutions, part of the Plata Basin Agreement. The data sets are not homogeneous and requires additional efforts to meet different operational needs of all concerned. The Project aims to bringing the integration concept for the benefit of all participants.
3. The initial phase of the Project will focus on the integration of the existing capacities, not requiring significant investments in equipment and instruments. After the Project, the activities will be incorporated into the operational routine of participating organizations, ensuring continuity of the new operational environment.
4. The support of the WMO Secretariat is very important in the initial phase of the Project, to provide technical guidelines and limited financial support to facilitate the organization of small well-targeted coordination meetings.

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