

## MEETING REPORT



### **Joint RA II and RA VI Workshop on WIGOS Minsk, September 2017**

#### **Summary**

The Joint RA II and RA VI Workshop on WIGOS was held in Minsk, Belarus on 12-14 September 2017 hosted by the State institution “ Republican Center for Hydrometeorology, Control of Radioactive Pollution and Environmental Monitoring of the Republic of Belarus (Belhydromet) in the headquarters of the Interstate Council of the Commonwealth of Independent States.

The purpose of the meeting was to strengthen and accelerate the implementation of WIGOS in Regions II and VI.

Seven out of 13 Member countries invited to delegate High level representatives responsible for observing systems attended the meeting.

With the view to encourage the Members in strengthening their involvement in these efforts, and explore the possibility of implementing a Regional WIGOS Center in pilot mode in the region, the WMO Secretariat, represented by the officers of the WIGOS Project Office and of the Regional Offices for Europe and for Asia and Pacific, was accompanied by the RA VI president and the member of the ICG on WIGOS and two invited experts from Turkey and China, attending in their capacity of chairpersons of the Regional Task Teams on WIGOS for Region Vi and Region II, respectively.

The participants were informed about the main technical elements being rolled out during the current Pre-Operational Phase of WIGOS, namely OSCAR/Surface and the WIGOS Data Quality Monitoring System.

The meeting noted with satisfaction the progress made during the intersessional period, and the participants reported on their current and planned involvement in

WIGOS or WIGOS technical elements, such as OSCAR/Surface or the WIGOS Data Quality Monitoring System.

The meeting reviewed the status of the nomination of National Focal Points (NFPs) for WIGOS and OSCAR/Surface.

The meeting prepared a list of recommendations. With the aim of obtaining endorsement of the Interstate Council on Hydrometeorology, these will be presented at the 29<sup>th</sup> session of the Interstate Council on Hydrometeorology, planned for 24-25 October 2017 in Tashkent, Uzbekistan. Also, these will serve as input for an update to the Region II and Region VI WIGOS Implementation Plan.

The PR of Belarus with WMO, as the host of the Joint RA II and RA VI Workshop on WIGOS, expressed the readiness to conduct, within the WMO Eurasian Office, once established, training sessions on WIGOS for the Eurasian countries, including also Latvia and Lithuania if they should be interested in joining. The participating Members welcomed and appreciated the invitation.

### **Gaps in national observing capabilities**

During a series of presentations from each of the participating WMO Members, the following gaps in national capabilities were noted:

#### **Belarus**

- Lack of human resources of the NMHS
- Sparse network of surface observations;
- Lack of new automatic technologies for monitoring;
- Lack of automatic stations for the coincident measurement of meteorological parameters and parameters of atmospheric air pollution;
- No meteorological sensors at the existing atmospheric air and radiation monitoring stations;
- Insufficient forecast skill at the one-month range; needed for the growing season for agriculture as well as for the transport and energy sectors;
- The ecological and radioactive monitoring systems need to be organized according to standard observing programs and included as subsystems of NMHS
- No national WIGOS implementation plan.

#### **Georgia**

- No upper air soundings (inactive since 1990`s);

- No calibration facility;
- Lack of technical staff;
- Different (incompatible) observing systems (different technologies for data storage, different file formats);
- Lack of hydrometeorological observation stations;
- Incomplete coverage of radar observations;
- Vandalism.

### **Kazakhstan**

- Weak technical capabilities, both in observing and IT systems,
- The use of satellite data is not fully exploited;
- Most traditional stations are not automated ;
- Carrying out upper-air observations only twice in 24h.

### **Moldova**

- The newly installed AWSs are not equipped with sensors for visibility, cloud height and snow cover height.
- Not all hydrological posts are automated.
- There is no integration of data from existing automatic posts (various equipment manufacturers, incompatible software).
- Need to modernize and automate the environmental monitoring network, including atmospheric composition.

### **Russian Federation**

- Serious additional efforts are required, with support from WMO, to strengthen the motivation of participation in WIGOS of government and private entities outside Roshydromet operating their own systems and observing networks.
- Demonstration of best practices is required.
- Ongoing dialogue with government structures and private sector is needed (e.g. at exhibitions, conferences)
- WMO support at high level is needed

## **Tajikistan**

- A Document on the hydrometeorological activity of the CIS - 4.1/28 is in the ratification process by the Tajik Government. The document is referring to the data quality management certification and will be considered at the forthcoming session of the CIS ICH.
- Tajikistan as a 95% mountainous country expressed interest to be involved in the cryosphere observation/ research and development projects to reinforce the monitoring network and contribute with data to the Global Observation System.

## **Ukraine**

Lack of adequate public funding:

- Insufficient investment in the observing insufficient and/or outdated equipment is used, frequent equipment failure
- it is not always possible to follow the WMO guidelines for observation (e.g. for upper-air soundings)

Particularities of the financial legislation of Ukraine:

- hydrometeorological organizations not allowed to have foreign currency accounts; instruments and equipment must therefore be purchased through intermediaries at inflated prices.

No centrally managed inventory of all observing systems existing in the country :

- Inaccurate/incomplete information about the availability of a number of observational systems and networks created and operated by external structures; as a consequence it is impossible to know where, when and which observations are made

## **National Focal Points (NFPs) for WIGOS and OSCAR/Surface**

- Armenia nominated Gohar Gevorgyan as NFP for WIGOS / OSCAR/ Surface
- Azerbaijan nominated Imran Abdulov as NFP for WIGOS
- Belarus nominated Halina Litvinskaya as NFP for OSCAR and Suschenya Lyudmila as NFP for Vol. A
- Georgia nominated Gobejshvili Tamara as NFP for OSCAR and Volume A
- Kazakhstan nominated Nona Loenco, the Head of the Observations, Meteorological Department, as the NFP for WIGOS (replacing the previous nominee); and Kussainova Marzhan as NFP for OSCAR/Surface and Vol. A

- Kyrgyzstan nominated Kozhevnikova Tatiana as FP for Vol. A and Jakipova Kanimbiubiu as FP for OSCAR
- Moldova nominated Aksenov N as NFP for OSCAR and Vol. A
- Mongolia still needs to nominate FP for WIGOS, OSCAR, Vol. A
- Russian Federation nominated Alexander Gusev as NFP for WIGOS and Mr Vjazilov Evgeniy as NFP for OSCAR/ Surface and Farik Fakhrutdinov for Vol. A
- Tajikistan nominated Yakubov Mukhiddin has been nominated as WIGOS/ OSCAR/Surface National Focal Point.
- Turkmenistan needs to nominate FP for WIGOS, OSCAR, Vol. A
- Ukraine nominated Mrs Olena Kosovets-Skavronska as NFP on WIGOS and OSCAR/Surface.
- Uzbekistan nominated Makhmudov Bakhtier and Valiyev as FPs for WIGOS, Kaidarova Sletlana as FP for OSCAR and Vol. A

### **Recommendations**

- A template for a National WIGOS Implementation Plan is needed and should be shared with all Members in the Region. The WMO Secretariat is requested to develop such a template with oversight from ICG-WIGOS. Hydrological WIGOS component needs to be taken into account.
- An awareness and outreach plan needs to be considered for development in order to motivate the Member countries to implement WIGOS.
- Participants requested the WMO Secretariat to address the national governments directly encouraging WIGOS implementation to ensure partnership among agencies having observing networks for data exchange.
- The participants are interested in learning more about WIGOS implementation in Switzerland, as OSCAR developers, in particular about the partnership of MeteoSwiss with other agencies/ third parties.
- Members are urged to nominate, if not already done, National FPs on WIGOS, OSCAR, and other related areas for future cooperation. The NFPs for OSCAR will be responsible for entering WIGOS metadata and maintain the metadata complete and up to date.
- Members are urged to check the accuracy and completeness of information included in OSCAR/Surface (with regard to the stations) and update, as necessary, in particular if the info entered is more than 5 years old, i.e. entered before 2012.

- The participants requested that a Russian language user interface to OSCAR be developed and made available.
- The participants requested that hands-on training event for OSCAR/Surface National FPs in Russian language be arranged. Members of the Eurasian sub-region were encouraged to take note of the national web-based system, developed and used by the Russian Federation to assist with its WIGOS and WIS implementation. The Russian Federation suggested that WMO consider developing a standalone version of OSCAR that can be installed nationally, outside the MeteoSwiss IT environment, and that would be able to exchange information with the central OSCAR/Surface database. Training sessions on its use should be developed for the users. WMO Secretariat is requested to investigate the technical compatibility of the two web systems.
- The participants expressed the interest in having examples of completed metadata entries from other countries metadata made available to serve as a model for their own entries into OSCAR/Surface.
- The WDAQMS Pilot Project / webpage shows very interesting information that should be made available to Members to monitor and use in their management of their WIGOS implementation.
- Members are encouraged to develop / launch projects of common interest, e.g. on radar installations, towards the WIGOS implementation, taking into account the RA II and RA VI Regional WIGOS Implementation Plans.
- Members are requested to nominate NFPs on WRD, GAW and other WIGOS component observing systems.
- Members are encouraged to benefit by participating in the training courses on WIGOS and WRD conducted by the Turkish State Meteorological Service and other Regional Training Centers
- Members are encouraged to install radars on neutral territories (non-conflict zones) to ensure a wider access to the data.
- Members are encouraged to use BALTRAD and other existing systems for inputs to the WRD.
- The WMO Eurasian Members should consider the possibility to establish a joint Expert Group on WIGOS implementation.
- WIGOS implementation should be discussed at the next Caspian Sea Committee meeting in November, by the participating Member countries who are also part of the Caspian Sea Committee.
- Members of the Eurasian sub-region gathered under the future WMO Eurasian office took note of the Multi-Hazard Early Warning Advisory System

being developed in South East Europe (SEE-MHEWS), and requested the WMO Secretariat to develop similar such project concept note for Eurasian region. This project concept note is to be submitted to the countries of the Eurasian region for their consideration, with a view to approve the development of a full Project proposal.

- Invite Lithuania and Poland to participate in the storm detection cooperation.
- Members are encouraged to consider the establishment of the Regional WIGOS Centers grouped by geographical areas, specialized in certain fields, e.g. Marine WIGOS Centers. The establishment of such Regional WIGOS Center(s) will be discussed by the participating Members at the forthcoming session of CIS ICH in Tashkent, and a possible decision could be made at the RA VI Session in 2018.
- An improved schematic representation of a Regional WIGOS Center is needed. The Secretariat is requested to develop such a tool.
- Members are encouraged to benefit by participation in the International projects to support the national efforts