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| **World Meteorological Organization** |  | **ICG-WIGOS-6/Doc.5.5** |
| **INTER-COMMISSION COORDINATION GROUP ON WIGOS (ICG-WIGOS-6)** |  | Submitted by: | Secretariat |
| Date: | 1.XII.2016 |
| ***SIXTH SESSION***GENEVA, SWITZERLAND 12-14 January 2017 | Original Language:  | English |
| Agenda Item: | 5.5 |

**5. STATUS OF THE PRIORITY AREAS IMPLEMENTATION OF THE PLAN FOR THE WIGOS PRE-OPERATIONAL PHASE**

**5.5. Concept development and initial establishment of Regional WIGOS Centres**

(Submitted by the Secretariat)

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| **Summary and purpose of document**The document provides the status of the priority area No. 5 of the PWPP and the draft Technical Guidance on establishing a RWC in pilot mode, developed by WIGOS-PO. |

**Action proposed**

The session will be invited to review the progress made and to formulate recommendations how to proceed further in this priority area.

**References:**

[Final Report from EC-68, Geneva, 15-24 June 2016, Decision 30(EC-68)](http://library.wmo.int/opac/index.php?lvl=notice_display&id=19656)

**5.5. Concept development and initial establishment of Regional WIGOS Centres**

**5.5.1 Background[[1]](#footnote-1)**

Regional guidance, oversight and support for national WIGOS implementation efforts will be a major item of priority. Many WMO Members are already now requesting guidance and support for their implementation efforts, and this can be provided better and more efficiently via a regional support structure rather than in direct interaction between the WMO Secretariat and individual Members.

The following key items with milestones are proposed:

(a) Development of the Concept document on Regional WIGOS Centres for EC-68;

(b) Establishment of one or more Regional WIGOS Centres in pilot mode from 2017;

(c) Operational phase of initial Regional WIGOS Centres by mid-2018;

(d) Establishment of Regional WIGOS Centres covering all WMO Regions by 2019.

The Regional WIGOS Centres will work closely with the WIGOS Project Office as well as with the WMO Members in their Region (or sub-Region) on their implementation activities.

**5.5.2 Progress achieved**

(a) Through its decision 30, EC-68 endorsed the Concept Note on Establishment of Regional WMO Integrated Global Observing System Centres, provided in the annex to this decision, as general guidance for regional associations outlining the basic principles and specifying mandatory and optional functions.

In this regard it requested the Intercommission Coordination Group on WIGOS to provide Members with detailed guidance on RWCs, their capabilities, establishment and performance evaluation.

The draft technical guidance developed by the WIGOS-PO is reproduced in [ANNEX](#ANNEX) to this document.

(b) An overview of the progress achieved in the WMO Regions will be presented under Agenda Item 4.2

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ANNEX

#### WORLD METEOROLOGICAL ORGANIZATION

**WMO INTEGRATED GLOBAL OBSERVING SYSTEM
(WIGOS)**

**ESTABLISHING A REGIONAL WIGOS CENTRE**

**IN PILOT MODE**

**DURING THE WIGOS PRE-OPERATIONAL PHASE 2016-2019**

*(Technical Guidance)*



**EXECUTIVE SUMMARY**

According to the decision of the seventeenth World Meteorological Congress (Cg-17, 2015), the concept development and initial establishment of Regional WIGOS Centres (RWCs) is one of five priority areas for the WIGOS pre-operational phase 2016-2019. The RWCs will play a critical role in advancing the implementation of WIGOS within their region (or sub-region) and will be providing regional coordination and technical support to Members.

RWCs will be working closely with data providers to facilitate primarily: (i) regional WIGOS metadata management (OSCAR/Surface); (ii) regional WIGOS performance monitoring and incident management (WIGOS Data Quality Monitoring System).

This document provides (i) the justification of the Project; (ii) its alignment with WMO strategic priorities and Member’s priorities; (iii) compliance with WMO regulations and rules; (iv) description of the Project; and (v) its implementation arrangements.

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**1. INTRODUCTION**

This document describes how to establish a Regional WIGOS Centre in Pilot mode to support and coordinate the WIGOS implementation activities in a given WMO Region or sub-Region.

**2. RATIONALE FOR THE PROJECT AND ITS RELEVANCE TO WMO**

Congress-17 decided that WIGOS, supported by WIS, is one of the WMO strategic priorities for 2016-2019. Subsequently, the concept development and initial establishment of Regional WIGOS Centres (RWCs) was identified as one of five priority areas for the WIGOS pre-operational phase 2016-2019.

EC-68 recognized the critical role that Regional WIGOS Centres (RWCs) will play in advancing the implementation of WIGOS at the regional level by providing regional coordination, technical guidance, assistance and advice to Members and regional associations in accordance with Technical Regulations (WMO-No. 49), Volume I – General Standards and Recommended Practices, and its Annex VIII, Manual on the WMO Integrated Global Observing System (WMO-No. 1160).

The WMO Regions differ in terms of WIGOS readiness, economic strength, cultural and linguistic characteristics, and these differences need to be taken into account in establishing and operating their respective RWCs.

EC-68 endorsed the “Concept Note on establishment of WMO Regional WIGOS Centres” (thereafter referred to as “RWC Concept”, and included as [Annex 1](#Annex1) to this document) as general guidance to regional associations outlining the basic principles and providing a clear specification of mandatory and optional functions.

**3.** **PROJECT DESCRIPTION**

**3.1 Objectives**

Expected results of the establishing a RWC in pilot mode include an assessment of the feasibility of subsequently establishing a fully operational RWC, and, based on the final project evaluation, a set of recommendations on key aspects of such a centre, including institutional set-up, concept of operations and strategy for long-term sustainability.

**3.2 Terms of Reference**

The Terms of reference (to include the main WIGOS functionalities offered by the Centre) must be defined; as a minimum, they must include the mandatory functions as specified in the RWC Concept (see [Annex 1](#Annex1)); however, depending on available resources and the willingness of the Member with primary responsibility for the RWC, one or more optional functions may be considered, e.g. assistance with regional and national observing network management, calibration support, education and training.

**3.3 Infrastructure**

**3.3.1 Basic Infrastructure**

In order to ensure a rapid start-up for the Centre, it would be desirable for the host country to make available to the Centre, either permanently or on a temporary basis, adequate, secure, fully-equipped, and easily accessible premises. These premises must be supplied with water and electricity and be equipped with a reliable telecommunications system.

**3.3.2 Technical Infrastructure**

The Centre must have adequate IT facilities and infrastructure (work stations, high speed internet access, data processing and storage capabilities) needed for RWC mandatory functions.

**4. RESOURCING**

There is no funding for RWC operations in the regular WMO budget. The responsibility for funding the establishment and operations of an RWC thus rests with the Member(s) involved. Suitable resources for establishment and sustained operations of the Centre must be identified. The amount and nature of resources required will depend on the intended functionalities of the Centre.

In order to ensure the long-term sustainability of the RWC, the Pilot phase should include the development of a long-term funding strategy based on effective resource mobilization where appropriate.

**4.1 Human resources**

The necessary human resources (management staff, scientific staff, technical staff and administrative staff) should be specified in terms of competencies and number of staff (expressed in Full-time equivalents) allocated to the RWC development and operations. The staff may be permanent NMHS employees or may be temporarily hired project staff. Where appropriate, some of the responsibilities of the RWC may be fulfilled through secondment of staff from other WMO Members in the Region.

**4.2 Funding resources**

The responsibility for funding the RWC operations rests with the Member(s) involved, and it is expected that efficiencies facilitated by the RWC in designing, procuring and operating the observing systems will offset most of these costs. Nonetheless, there will be less well-resourced Members that will have difficulties in identifying the required resources at the national level. In these cases the RWC partner(s) will have to develop effective resource mobilization strategies with a view to deriving maximum benefit from the various multilateral funding mechanisms, and regional development institutions, etc. The WMO Secretariat is prepared to support all stages of such resource mobilization efforts.

**5. IMPLEMENTATION STAGES**

To be designated as a WMO RWC, after the launch period (start-up phase), there must be a successful pilot phase, after which the Centre may enter an operational phase.

**5.1 Start-up phase**

The RWC candidate will contact the president of the respective WMO Regional Association (P/RA) in writing through, and with the endorsement of, the Permanent Representative(s) of the Member(s) with WMO in which the RWC candidate is situated, expressing its intent to be designated as a WMO RWC in Pilot Mode. The Application template for a RWC candidate is reproduced in [Annex 2](#Annex2).

P/RA, in close collaboration with the management group and related expert group of the RA, ICG-WIGOS, and the WIGOS Project Office in the WMO Secretariat, will consider the proposal. The candidate(s) will follow recommendations and guidance for further elaboration of the proposal.

During this phase, which may last several months, the framework for Pilot phase operations is created, the infrastructure and human resources are made available, the functionalities assigned to the Centre are specified and clarified, partners are mobilized and consortia of technical, scientific and financial partners, if needed, are developed.

**5.2 Pilot Phase**

The aims of this phase are (i) to begin helping a group of Members within the domain[[2]](#footnote-2) of the RWC to benefit from WIGOS and (ii) to prepare the solid basis for a transition to a subsequent Operational phase, depending on final assessment. The functionality and services provided during this phase are evaluated on a regular basis by the RWC Project Manager[[3]](#footnote-3), with methods readjusted as necessary.

In the beginning of the Pilot phase, the RWC Project Manager will ensure that the required preparatory work is conducted and implementation arrangements are put in place according to the Project document.

At the end of the Pilot phase, the RWC Project Manager will prepare and submit a Project Final Report to P/RA, evaluating the performance of the Project, sustainability of results and documenting the experience. For this purpose, the RWC Project Manager will:

* Assess the Centre performance in terms of achievements as compared to the targets, as well as their sustainability; the assistance and benefits received by Members of the (sub)Region should be documented;
* Assess the Project financial management including allocation of funds (final status as compared to the initial budget);
* Draw lessons from the overall project management experience including stakeholders engagement, monitoring and reporting system to feed into subsequent implementation project;
* Describe the measures put in place to ensure continuity of the Centre in operational mode, as appropriate.

Upon successful completion of the Pilot phase and based on the respective positive assessment of the management group of the RA, P/RA will contact the Secretary General of WMO with a request for formal designation of the candidate as WMO RWC, providing documentation on the assessment of the capability to meet requirements of the designation criteria.

**6. RISK ASSESSMENT/MANAGEMENT**

The main risks, how they might affect the RWC operations and WIGOS as a whole, and possible mitigation measures should be considered. The level of risk should be assessed (low, medium, high) for each type of risk. Typical risk factors include:

a) Political/institutional risks, such as low political commitment to the Project, interest from stakeholders, change in government, etc.;

b) Financial/resources risks, e.g. inadequacy of the financial management system, availability of project resources;

c) Human resources/capacity risks, e.g. skills and/or expertize availability; adequacy between existing and required experience and specialized skills;

The Risk Management Plan will be developed for each implementation activity/sub project, including risk mitigation.

**7. GOVERNANCE, MANAGEMENT AND EXECUTION**

The Project management (i.e. RWC Project Manager, Project Executive) should work closely with the P/RA, management group and relevant WIGOS working body of the RA, WMO Secretariat (OBS Department), and other WMO related entities.

**8. MONITORING AND EVALUATION**

The RWC Project Manager has the routine responsibility for management, coordination, monitoring and evaluating the Project, and for reporting to Executive Management of the organization under which the RWC is framed.

He is also responsible for updating the procedures and practices if and when needed. The monitoring and evaluation process should demonstrate the progress achieved as well as identify risks, encountered problems and difficulties, and the need for adjustment of the Project accordingly.

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### Annex 1

### Annex to Decision 30 (EC-68)

#### Concept note on establishment of WMO Regional WIGOS Centres

**Background**

Many WMO Members are already now requesting guidance and support for their WIGOS implementation efforts. It is clear that such support can be provided more efficiently and effectively via a regional support structure rather than through direct interaction between the WMO Secretariat and individual Members. A network of Regional WIGOS Centres (RWCs) is needed to assist WMO Members in their endeavour to successfully implement WIGOS at the national and regional levels.

There is a clear understanding that the Regions differ and that the generic concept described below will have to be adjusted further in order to address specific needs, priorities, challenges and available technical and human resources of the respective Region.

**Purpose**

Under the governance and guidance of the management group of the respective regional association and with the support of relevant regional working bodies, the overall purpose of the RWCs is to provide support and assistance to WMO Members and Regions for their national and regional WIGOS implementation efforts.

**Basic Principles**

WMO should, wherever possible, encourage the existing WMO regional centres to carry out the new activities, thus ensuring optimization of technical and human resources. Already existing structures and mechanisms should be considered when implementing WIGOS at the regional and national levels, including their potential roles in RWCs. Every effort must be made to avoid any duplication with responsibilities and functionalities of already existing WMO Regional Centres; instead, possible synergies with them must be exploited.

Existing geographic, cultural and linguistic differences within each WMO Region must be taken into account in determining the appropriate establishment and models of operation of RWCs. Therefore, the respective regional association must decide on its own mechanism for how to establish its RWCs with clearly specified Terms of Reference in line with guidance by ICG-WIGOS, reflecting its needs, priorities and existing capabilities and facilities. The relevant WIGOS working body in the Region (generally the Regional Task Team on WIGOS) should be involved in the process of establishing the RWC and have general oversight once it has become operational.

**Links to other WMO entities**

The RWCs will work closely both with the WMO Secretariat (including Regional Offices) and with their respective regional working bodies to ensure efficient and effective implementation of WIGOS. The RWCs will liaise with relevant existing WMO Centres, in particular with the Regional Instrument Centres (RICs), Regional Climate Centres (RCCs) and Regional Training Centres (RTCs) regarding all WIGOS related activities in the Region.

**Functionalities**

Basic functions of the RWC must be regional coordination, guidance, oversight and support of WIGOS implementation and operational activities at the regional and national levels (day-to-day level of activities). A number of mandatory and optional functions are specified.

**Mandatory functions**

The proposed mandatory functions are directly linked with two of the priority areas of the WIGOS Pre-operational phase (2016-2019):

1. Regional WIGOS metadata management (work with data providers to facilitate collecting, updating and providing quality control of WIGOS metadata in OSCAR/Surface);

2. Regional WIGOS performance monitoring and incident management (WIGOS Data Quality Monitoring System) and follow-up with data providers in case of data availability or data quality issues.

**Optional functions**

Depending on available resources and regional needs, one or more optional functions may be adopted, e.g.: (a) assistance with the coordination of regional/sub-regional and national WIGOS projects; (b) assistance with regional and national observing network management; and (c) support for regional capacity development activities.

**Implementation options and roadmap**

In principle, each Member of any given Region should be covered by an RWC which will be responsible for providing WIGOS support. The RWCs may be implemented either centrally, at an overall regional level where a Member or a consortium of Members provide support for the entire Region, or at sub-regional level, e.g. aligned with the natural geographic or linguistic boundaries existing within the Region.

RWCs may be implemented either as monolithic entities, with a single Member taking on the responsibility for the entire set of required functionalities, or as virtual Centres, in which a consortium of Members share these responsibilities between them under the overall coordination of a lead organization.

The following key items with milestones are proposed in the Plan for the WIGOS Pre-operational phase:

(a) Establishment of one or more Regional WIGOS Centres in pilot mode from 2017,

(b) Operational phase of initial Regional WIGOS Centres beginning mid-2018,

(c) Establishment of Regional WIGOS Centres covering all WMO Regions by 2019.

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**Annex 2**

**Application Template for a RWC candidate**

An agency or organization that wishes to be considered for WMO designation as an RWC will make this known to the president of the respective WMO Regional Association in writing through, and with the endorsement of, the Permanent Representative with WMO of the country in which the candidate RWC is situated.

The written communication should comprise a ***letter of intent*** that clearly states candidate’s willingness and ability to provide RWC functionalities with an ***annex*** providing the following information (applies also to individual members of a virtual RWC which will collectively fulfil the RWC functions):

1. Name of the Country, WMO Regional Association, name of the Organization and full address
2. Affiliation (sponsors, stakeholders, partnering agencies, etc.) at the global, regional and national levels
3. Mandate of the Centre relevant to WIGOS activities (mandatory and optional functions)
4. Liaison with relevant existing WMO centres, particularly regional centres
5. Website relevant to the Centre with WIGOS relevant activities
6. Current operational activities relevant to the RWC application (structured along the mandatory and optional RWC functions)
7. Staff deployment/human resources relevant to RWC-related activities (management, scientific, technical and administrative categories)
8. Description of current facilities, the necessary basics, physical infrastructure and communication systems relevant to RWC mandatory and optional functions
9. Funding strategy to ensure the long-term sustainability of the RWC
10. Geographical/economical/linguistic region for which the RWC functionalities are offered
11. Type of RWC (a single multifunctional RWC or as a virtual/distributed RWC (RWC-network) provided by a group of Members)
12. Proposed RWC Project Manager (name, position, contacts; CV)
13. Stakeholders engaged in the current and planned RWC operations
14. Relevant National Focal point(s)
15. Project proposal:
* Prepared by (name, position)
* Approved by (name, position)
* Project Executive (name, position)
* RWC Terms of reference
* Implementation period
* Project budget
* Funding sources
* List of activities, deliverables, outcomes, milestones, resources required and associated risks
* Additional documentation demonstrating the experience and the capacity of the candidate organization to fulfil the described functions
1. Additional information as appropriate

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**References:**

1. Seventeenth World Meteorological Congress: Abridged final report with resolutions (<http://library.wmo.int/pmb_ged/wmo_1157_en.pdf>)
2. Executive Council - Sixty-eighth session: Abridged final report with resolutions (Resolution 2 and Decision 30; http://library.wmo.int/)
3. Project Management Guidelines and Handbook: Part I – Project Management Guidelines, Part II – Project Management Handbook (<http://library.wmo.int/pmb_ged/2016_wmo_project-management-guidelines-handbook_en.pdf>)
1. An extract from the PWPP (3.5) [↑](#footnote-ref-1)
2. Geographical/economical/linguistic region for which the RWC functionalities are offered [↑](#footnote-ref-2)
3. RWC Project Manager is the expert proposed by the RWC candidate [↑](#footnote-ref-3)