



WMO OMM

World Meteorological Organization
Organisation météorologique mondiale
Organización Meteorológica Mundial
Всемирная метеорологическая организация
المنظمة العالمية للأرصاد الجوية
世界气象组织

Secrétariat

7 bis, avenue de la Paix – Case postale 2300
CH 1211 Genève 2 – Suisse
Tél.: +41 (0) 22 730 81 11
Fax: +41 (0) 22 730 81 81
wmo@wmo.int – public.wmo.int

Our ref.: OBS/WIGOS/OSD/EGOS-IP

GENEVA, 6 September 2016

Annexes: 4 (Annexes 2, 3 and 4 available in English only)

Subject: Implementation Plan for the Evolution of Global Observing Systems (EGOS-IP)

Action required: Members contributions toward implementing actions of EGOS-IP

Dear Sir/Madam,

As you may recall, the Implementation Plan for the Evolution of Global Observing Systems (EGOS-IP), responding to the Vision for the Global Observing System in 2025, was adopted by the Executive Council at its sixty-fifth session through Resolution 10 (EC-65). The Plan is an important component of the transition to WIGOS.

The seventeenth session of the World Meteorological Congress (Geneva, Switzerland, May/June 2015) requested Members, in collaboration with partner organizations, and identified agents in EGOS-IP, to address all actions listed in the Plan in order to address the identified observational gaps with regard to the observational user requirements of the WMO Application Areas. Congress further requested Members who had not yet nominated their National Focal Points for the monitoring of progress on the actions listed in the EGOS-IP to do so by the end of December 2015. It also requested the Commission for Basic Systems (CBS) to find ways to improve the engagement of Members and Regions in completing the EGOS-IP actions and urged Members to mobilize resources to drive these activities forward.

Following discussions within the relevant CBS Expert Teams, a high level document synthesizing new ways to contribute to and benefit from the WMO Global Observing System (WIGOS) through the implementation of EGOS-IP has been prepared and is provided in Annex 1. The document provides a summary of the objectives of EGOS-IP, and obligations of Members regarding the implementation of the EGOS-IP actions.

In this regard, I request you to:

- (a) Pay particular attention to the attached list of the key EGOS-IP actions and consider how you may address them; and
- (b) Ensure that your country has a National Focal Point for EGOS-IP (terms of reference and nomination form are provided in Annex 3, current list of focal points in Annex 4).

To: Permanent Representatives (or Directors of Meteorological or Hydrometeorological Services) of Members of WMO (PR-6924)

cc: Hydrological Advisers to Permanent Representatives

I should, therefore, be grateful if you could note the information in the letter and take necessary actions as requested.

Yours faithfully,



(E. Manaenkova)
for the Secretary-General

**NEW WAYS TO CONTRIBUTE TO AND BENEFIT FROM THE
WMO INTEGRATED GLOBAL OBSERVING SYSTEM (WIGOS)
THROUGH THE IMPLEMENTATION PLAN FOR THE EVOLUTION OF
GLOBAL OBSERVING SYSTEMS (EGOS-IP)**

Purpose

To bring to your attention, as the Permanent Representative with WMO for your country, the EGOS-IP and what you are being asked to contribute to its implementation¹.

Background

The World Meteorological Organization (WMO) facilitates cooperation amongst its 191 Members so that they are each better able to perform their weather, water and climate related functions. A prominent element of this is the sharing of observations obtained through the WMO global observing systems.

All Members benefit from the exchange of data between countries. For example, your country benefits from numerical weather prediction which is improved using observations from yours and neighbouring countries, and forecasters the world over benefit from access to weather satellite imagery from satellite operators.

WMO global observing systems are well established, regulated and standardized as documented in WMO's Technical Regulations and supporting guidance material. Most recently the introduction of new Technical Regulations has included the new Manual on the WMO Integrated Global Observing Systems (WIGOS), covering matters such as station identifiers and observational metadata. Your contributions are valuable and appreciated.

However, there is a need to evolve in response to changing requirements for observations and new technological capabilities. WMO brought together technical experts to develop the "Vision for the Global Observing System in 2025²", followed by a coordinated set of actions to pursue this vision. These actions were approved by the sixty-fifth session of the Executive Council (EC-65, 2013) and published in WIGOS Technical Document No. 2013-4, the Implementation Plan for the Evolution of Global Observing Systems (EGOS-IP).

The EGOS-IP and your contributions

The EGOS-IP contains activities to be implemented during the period 2012 to 2025 for maintaining and developing all WMO component observing systems. These systems have a collective identity as the WMO Integrated Global Observing System (WIGOS). WMO observing systems also make major contributions to co-sponsored observing programmes (GCOS³, GOOS⁴), the Global Earth Observation System of Systems (GEOSS) and to the Global Framework for Climate Services (GFCS).

There are 115 Actions in the EGOS-IP, many of which depend on implementation by Members. We request initial focus and feedback on 15 of these Actions, as listed in Annex 2. The full document should be consulted for elaborative information and the relevant context.

According to the *Manual on the WIGOS* (WMO-No. 1160) which invokes the EGOS-IP, you are requested to undertake the following (excerpt from the Manual):

1 The document, published as WIGOS Technical Document No. 2013-4, is available in 5 languages at <http://www.wmo.int/pages/prog/www/OSY/gos-vision.html#egos-ip>

2 The Vision for the GOS in 2025 is available in six languages here: <http://www.wmo.int/pages/prog/www/OSY/gos-vision.html#egos-ip>

3 WMO-IOC-UNEP-ICSU Global Climate Observing System

4 IOC-WMO-UNEP-ICSU Global Ocean Observing System

2.2.6.1 Members should follow the plans published by WMO for the evolution of WIGOS component observing systems when planning and managing their WIGOS observing systems.

2.2.6.2 Members shall coordinate the activities of organizations within their country, including National Meteorological and Hydrological Services (NMHSs) and other agencies, in addressing relevant actions of the WMO plans for the evolution of WIGOS observing systems.

For some of the EGOS-IP Actions, in your efforts to make progress you may find assistance through collaboration with your WMO regional association and other sources of assistance for capacity development.

Other parties have been asked to give attention to the other actions, although their implementation efforts may in some cases lead them to seek your collaboration.

Monitoring progress

WMO regularly monitors progress on all the EGOS-IP actions and seeks to resolve any problems and to assist the understanding and ability to implement the actions. To report annually against the EGOS-IP actions, all Permanent Representatives were asked to nominate a National Focal Point (NFP) for the EGOS-IP. The current list of NFPs is available on the WMO website⁵ and reproduced in Annex 4. A copy of the call for nominations is reproduced in Annex 3. To date around 90 Members have nominated a NFP; a nomination for your country is requested if you have not provided one already.

The NFPs play a critical role by providing annual reports on progress. It is intended that an overall annual report will be compiled and made available to you. So far only a brief assessment has been undertaken, as indicated in the relevant agenda paper⁶ of the WMO Commission for Basic Systems' Expert Team responsible for this activity.

Action required

You are requested to:

- (a) Pay particular attention to the attached list of key EGOS-IP actions and take action nationally in order to consider how these actions are being addressed at the national level; and
- (b) Ensure that your Country has a National Focal Point for the EGOS-IP who will respond to future requests for information on your country's progress against the 15 actions.

⁵ At http://www.wmo.int/pages/prog/www/CBS/Lists_WorkGroups/CBS/opag_ios/fp_egos-ip

⁶ The agenda paper is available at:
<https://drive.google.com/file/d/0BzxtAFnFpjRcExHNFdaS2JzakU/view?pref=2&pli=1>

OBS/WIGOS/OSD/EGOS-IP, ANNEX 2

KEY EGOS-IP ACTIONS FOR MEMBERS

Note: These are the key actions, on which we encourage initial focus and feedback. It should be noted however, that the remaining actions are also important and need to be addressed by the identified actors in the EGOS-IP.

Action No.	Action	Performance indicator
C3	WIS Standards – Ensure all operators producing observations adhere to the WIS standards.	Extent to which WIS standards are applied.
C4	Users consultation – Careful preparation is required before introducing new (or changing existing) observing systems. The impact needs to be assessed through prior and ongoing consultation with data users and the wider user community. Also, data users need to be provided with guidance on data reception/acquisition, processing and analysis infrastructure, the provision of proxy data, and the provision of education and training programmes.	Extent to which user community concerns are captured.
C7	"Change management" procedures – Ensure time continuity and overlap of key components of the observing system and their data records, in accordance with user requirements, through appropriate change-management procedures.	Continuity and consistency of data records.
C8	Data sharing principles – For WMO and co-sponsored observing systems, ensure continued adherence to WMO data sharing principles irrespective of origin of data, including data provided by commercial entities.	Continued availability of all essential observational data to all WMO Members.
C12	Radio frequencies – Ensure a continuous monitoring of the radio frequencies which are needed for the different components of WIGOS, in order to make sure they are available and have the required level of protection.	Observation frequency bands available/not available with required level of protection.
G2	Hourly data exchange – Ensure, as far as possible, a global exchange of hourly data which are used in global applications, optimized to balance user requirements against technical and financial limitations.	The standard monitoring indicators used in global NWP.
G4	WIGOS Standards – Ensure exchange of observations from atmosphere, ocean, terrestrial observing system, according to the WIGOS standards. If needed, organize different levels of pre-processed observations in order to satisfy different user requirements.	Statistics on the data made available to each application.
G7	Radiosondes in data-sparse areas – Expand radiosonde stations, or re-activate silent radiosonde stations, in the data sparse areas of Regions I, II and III which have the poorest data coverage. Make all possible effort to avoid closing of existing stations in these data sparse areas, where even a very small number of radiosonde stations can provide an essential benefit to all the users.	The standard monitoring indicators used in NWP

Action No.	Action	Performance indicator
G13	Radiosonde data availability – Identify radiosonde stations that make regular measurements (including radiosondes operated during campaigns only), but for which data are not transmitted in real-time. Take actions to make data available.	A number of the above radiosonde stations providing data to GTS, plus standard monitoring indicators on radiosonde data availability and timeliness.
G14	HR Radiosonde data – Ensure a timely distribution of radiosonde measurements at high vertical resolution, together with position and time information for each datum, and other associated metadata.	Number of radiosonde sites providing the high resolution profiles.
G17	Regional remote sensing profiling stations – Develop networks of remote-sensing profiling stations on the regional scale in order to complement the radiosonde and aircraft observing systems, mainly on the basis of regional, national and local user requirements (although part of the measured data will be used globally).	A number of profiling stations providing quality-assessed data in real-time to WIS/GTS.
G18	Processing & exchange of profiler data – Ensure, as far as possible, the required processing and the exchange of profiler data for local, regional and global use. When profiler data can be produced more frequently than 1 hour, a dataset containing only hourly observations can be exchanged globally following the WIS principles.	A number of profiling stations exchanged globally.
G40	Metadata & representativeness of special stations – Ensure, as far as possible in real-time, exchange of observations, relevant metadata, including a measure of representativeness made by surface-based stations serving specific applications (road transport, aviation, agricultural meteorology, urban meteorology, etc.).	A percentage of observations from the above stations exchanged regionally and globally in real-time.
G45	Dual polarization radars – Increase the deployment, calibration and use of dual polarization radars in those regions where it is beneficial.	Data coverage obtained from this type of radar for each Region.
G47	Weather radars for developing countries & DRR – For areas in developing countries which are sensitive to storms and floods, a special effort has to be made to establish and maintain weather radar stations.	The number of operational weather radar stations in the above areas.

OBS/WIGOS/OSD/EGOS-IP, ANNEX 3

**NOMINATION OF NATIONAL FOCAL POINT(S) ON THE
IMPLEMENTATION PLAN FOR THE EVOLUTION OF GLOBAL OBSERVING SYSTEMS
(EGOS-IP)**

A. Terms of Reference

The National Focal Points (NFPs) responsible for reporting progress and plans in the Country related to the Implementation Plan for the Evolution of Global Observing Systems (EGOS-IP):

1. Shall report annually as requested by the WMO Secretariat on the status of the national components of the Surface- and Space-Based Sub Systems of the Global Observing System vis-à-vis recommendations of the EGOS-IP; and
2. Should share national and/or regional plans for the evolution of the national components of the Surface- and Space-Based Sub-Systems of the Global Observing System taking into account recommendations of the EGOS-IP.

B. Nomination Form

The Permanent Representative of _____

nominates the following person as NATIONAL FOCAL POINT on the EGOS-IP:

1. Family name: _____

2. First name: _____

3. Business address: _____

Telephone: _____

Fax: _____

E-mail: _____

4. Present position and type of responsibility: _____

Date: _____

Signature of Permanent Representative: _____

To be completed and returned to the WMO Secretariat:

The Secretary-General
World Meteorological Organization
Case Postale No. 2300
CH-1211 Geneva 2, SWITZERLAND
Fax: +41 22 730 81 81 / +41 22 730 80 21

OBS/WIGOS/OSD/EGOS-IP, ANNEX 4

**LIST OF NATIONAL FOCAL POINTS ON THE IMPLEMENTATION PLAN FOR THE
EVOLUTION OF THE GLOBAL OBSERVING SYSTEM (EGOS-IP)**

The latest version of the list of NFPs on the EGOS-IP is available on the WMO website at:

http://www.wmo.int/pages/prog/www/CBS/Lists_WorkGroups/CBS/opag_ios/fp_egos-ip

The list as of July 2016 is provided below.

<p>HAMID, M. Latrous (focal point)</p> <p>Proposed by: Algeria</p>	Office National de la Météorologie Avenue Khemisti B.P. 153, Dar El Beida ALGER Algérie Tel: (+213 21) 50 73 93 / 96 Fax: (+213 21) 50 73 93 / 96 E-mail: h.latrous@meteo.dz
<p>GARCIA, Mario Jorge (focal point)</p> <p>Proposed by: Argentina</p>	Servicio Meteorologico Nacional (SMN) 25 de Mayo 658 , 1002 BUENOS AIRES Argentina Tel: +(54 11) 4514 1525 Fax: +(54 11) 5167 6711 E-mail: garcia@smn.gov.ar
<p>GRIGORYAN, Valentina (focal point)</p> <p>Proposed by: Armenia</p>	Hydrometeorological and Monitoring Service 54 Leo Street , 375002 YEREVAN Armenia Tel: +(374 1) 0532 952 Fax: +(374 1) 533 575 E-mail: valent_g2000@yahoo.com , valentina.grigoryan@yahoo.com
<p>STRINGER, Russell (focal point)</p> <p>Proposed by: Australia</p>	Bureau of Meteorology G.P.O. Box 1289 MELBOURNE 3001 VIC Australia Tel: +61 3 9669 4225 Fax: +61 3 9669 4168 E-mail: r.stringer@bom.gov.au
<p>TARAFDER, Md. Muzammel Haque (focal point)</p> <p>Proposed by: Bangladesh</p>	Bangladesh Meteorological Department Meteorological Complex Abhawa Bhaban Agargaon 1207 DHAKA Bangladesh Tel: (+880 2) 811 6634 Fax: (+880 2) 811 8230 E-mail: info@bmd.gov.bd

<p>KUZMICH, Svetlana (focal point)</p> <p>Proposed by: Belarus</p>	<p>Republic Hydrometeorological Center Nevavisimosti st., 110 220114 MINSK Belarus Tel: (+375 17) 267 0332 Fax: (+375 17) 267 0335 E-mail: met1@hmc.by</p>
<p>DEWITTE, Steven (focal point)</p> <p>Proposed by: Belgium</p>	<p>EUROCONTROL 96 Rue de la Fusée 1130 Brussels Belgium Tel: (+32 2) 373 0624 Fax: (+32 2) 373 0624 E-mail: steven.dewitte@oma.be</p>
<p>SEHBAJRAKTAREVIC, Kemal (focal point)</p> <p>Proposed by: Bosnia and Herzegovina</p>	<p>Meteorological Institute Bardakcije 12 71 000 SARAJEVO Bosnia and Herzegovina Tel: +(387 33) 276 709 Fax: +(387 33) 276 701 E-mail: kemo_seh@yahoo.com, kemal.sehbajraktarevic@fhmzbih.gov.ba</p>
<p>RAMAPHANE, Galebonwe (focal point)</p> <p>Proposed by: Botswana</p>	<p>Botswana Meteorological Services P.O. Box 10100 GABORONE Botswana Tel: (+267) 395 6281 Fax: (+267) 395 6281 E-mail: meteo@gov.bw</p>
<p>DALL ANTONIA JR, Alaor Moacyr (focal point)</p> <p>Proposed by: Brazil</p>	<p>Instituto Nacional de Meteorología (INMET) Eixo Monumental - Via S1 70680-900 BRASILIA D.F. Brazil Tel: +55 61 3344 9955 Fax: +55 61 3343 1487 E-mail: alaor.dallantonja@inmet.gov.br</p>
<p>GEORGIEV, Christo (focal point)</p> <p>Proposed by: Bulgaria</p>	<p>National Institute of Meteorology and Hydrology 66, Tsarigradsko shose, Blvd. 1784 SOFIA Bulgaria Tel: (+359 2) 462 4500 Fax: (+359 2) 462 4500 E-mail: office@meteo.bg</p>
<p>NGUILAMBOUHE BONGLA, Andre (focal point)</p>	<p>Direction de la météorologie nationale 33, rue Ivy B. P. 186 DOUALA</p>

Proposed by: Cameroon	Cameroun Tel: (+237) 75 86 53 57 Fax: (+237) 75 86 53 57 E-mail: andre_angui@yahoo.fr
ABRAHAM, Jim (focal point) Proposed by: Canada	Meteorological Service of Canada (MSC) 10 Wellington Street, 4th Floor North Tower Les Terrasses de la Chaudière GATINEAU K1A 0H3 QC Canada Tel: (+1-416) 739-4965 Fax: (+1-416) 739-4965 E-mail: yhzweatherguy@gmail.com
SILVA, Joao Baptista (focal point) Proposed by: Cape Verde	National Institute of Meteorology and Geophysics C. P. No. 76 ILHA DO SAL Cabo Verde Tel: +(238) 41 1276 Fax: +(283) 41 1294 E-mail: institutometeo@cvtelecom.cv
PATALLET, Bianpambe (focal point) Proposed by: Chad	Direction des Ressources en eau et de la Météorologie Service Hydrologique B.P. 429 N'DJAMENA Tchad Tel: (+235) 252 3081 Fax: (+235) 252 3081 E-mail: bpatallet@yahoo.co
TORRES, Gaston (focal point) Proposed by: Chile	Direccion Meteorologica de Chile Av. Portales 3450 , Estacion Central SANTIAGO 9170018 Chile Tel: +56 2 2436 4519 Fax: +56 2 2437 8212 E-mail: gtorres@meteochile.cl
ZHAO, Datong (focal point) Proposed by: China	China Meteorological Administration 46 Zhongguancun Nandajie 100081 BEIJING China Tel: +86 10 5899 5027 Fax: +86 10 6217 4797 E-mail: zhaodt@cma.gov.cn
HILDAGO, Francisco (focal point) Proposed by: Colombia	Ministerio del Medio Ambiente Instituto de Hidrología, Meteorología y Estudios Ambientales Carrera 7 N°32 - 16 piso 27 D.C. SANTA FE DE BOGOTA

	<p>Colombia Tel: (+57 1) 352 7160 Ext. 2117 Fax: (+57 1) 352 7160 Ext. 2117 E-mail: fhidalgo@ideam.gov.co</p>
<p>STOLZ ESPANA, Werner (focal point) Proposed by: Costa Rica</p>	<p>Instituto Meteorológico Nacional (IMN) Apartado Postal 5583 1000 SAN JOSE Costa Rica Tel: +(506) 222 56 16 - ext. 115 Fax: +(506) 223 18 37 E-mail: wstolz@imn.ac.cr</p>
<p>PAPACHRISTODOULOU, Chrystalla (focal point) Proposed by: Cyprus</p>	<p>Department of Meteorology Ministry of Agriculture, Natural Resources and Environment CY-1418 NICOSIA Cyprus Tel: +357 2280 2911 Fax: +357 2230 5500 E-mail: cpapachristodoulou@ms.moa.gov.cy</p>
<p>SKRIVANKOV , Pavla (focal point) Proposed by: Czech Republic</p>	<p>Czech Hydrometeorological Institute Na Sabatce 17 143 06 PRAGUE 4 Komorany Czech Republic Tel: - Fax: - E-mail: skrivankova@chmi.cz</p>
<p>KERN-HANSEN, Claus (focal point) Proposed by: Denmark</p>	<p>Danish Meteorological Institute Lyngbyvej 100 DK-2100 COPENHAGEN Denmark Tel: +45 39 15 73 80 Fax: +45 39 27 10 80 E-mail: ckh@dmi.dk</p>
<p>MAHMOUD, Amr (focal point) Proposed by: Egypt</p>	<p>The Egyptian Meteorological Authority Koubry El-Quobba P.O. Box 11784 CAIRO Egypt Tel: (+202) 26849860 Fax: (+202) 26849860 E-mail: ema.support@ema.gov.eg</p>
<p>LEMMA, Melesse (focal point) Proposed by: Ethiopia</p>	<p>National Meteorological Agency P.O. Box 1090 ADDIS ABABA Ethiopia Tel: (+251 11) 6615779 Fax: (+251 11) 6615779 E-mail: mellemma2001@gmail.com</p>

<p>PAVLOVSKA, Vesna (focal point)</p> <p>Proposed by: The former Yugoslav Republic of Macedonia</p>	<p>Republic Hydrometeorological Institute Skupi b.b., P.O. Box 218 SKOPJE 91000 The former Yugoslav Republic of Macedonia Tel: +(389 2) 3097 004 Fax: +(389 2) 3097 118 E-mail: vavlovska@meteo.gov.mk</p>
<p>LEMINEN, Keijo (focal point)</p> <p>Proposed by: Finland</p>	<p>Finnish Meteorological Institute P.O. Box 503 FIN-00101 HELSINKI 10 Finland Tel: (+358-9) 1929 2200 Fax: (+358-9) 1929 2200 E-mail: Keijo.Leminen@fmi.fi</p>
<p>CANONICI, Monique (focal point)</p> <p>Proposed by: France</p>	<p>Météo-France 42, avenue Gaspard Coriolis 31057 TOULOUSE CEDEX France Tel: +(33 5) 61 07 8723 Fax: +(33 5) 61 07 8709 E-mail: monique.canonici@meteo.fr</p>
<p>ASSENGONO NDONG, Mathilde (focal point)</p> <p>Proposed by: Gabon</p>	<p>Direction de la météorologie nationale Cabinet du Ministre des Transports et de l'Aviation Civile B.P. 377 LIBREVILLE Gabon Tel: +241 04149185/05072763, +241-761551/05316397 Fax: +241 76 38 95, +241-7615551/3904 E-mail: ndogmathilde@yahoo.fr, Ondoella1@yahoo.fr</p>
<p>KURZ, Volker (focal point)</p> <p>Proposed by: Germany</p>	<p>Deutscher Wetterdienst (DWD) Frankfurter Strasse 135 D-63067 OFFENBACH AM MAIN Germany Tel: +49 69 8062 2828 Fax: +49 69 8062 3827 E-mail: volker.kurz@dwd.de</p>
<p>NKANSAH, Andrews (focal point)</p> <p>Proposed by: Ghana</p>	<p>Meteorological Services Department P.O. Box 87 Legon ACCRA Ghana Tel: (+233) 21 701 2525 Fax: (+233) 21 701 2525 E-mail: meteo@africaonline.com.gh</p>
<p>ARMENIS, Gerasimos (Capt.) (focal point)</p>	<p>Hellenic National Meteorological Service (HNMS)</p>

Proposed by: Greece	El. Venizelou Str. 14 Hellinikon 16777 101 80 ATHENS Greece Tel: (+30 210) 969 9018 Fax: (+30 210) 969 9018 E-mail: garmenis@hnms.gr
MENDES, Cherno Luis (focal point) Proposed by: Guinea-Bissau	Direcção-General do Serviço Meteorológico Nacional (MRNA/DGRH) B.P. 398 1001 BISSAU Guinea Bissau Tel: (+245) 660 64 38 Fax: (+245) 660 64 38 E-mail: cherno_lm@yahoo.fr
SHUK-MING LEE, Olivia (focal point) Proposed by: Hong Kong, China	Hong Kong Observatory (HKO) 134A Nathan Road KOWLOON Hong Kong, China Tel: +852 2926 8421 Fax: +852 2926 8421 E-mail: olee@hko.gov.hk
NAGY, József (focal point) Proposed by: Hungary	Hungarian Meteorological Service P.O. Box 38 H-1525 BUDAPEST Hungary Tel: (+36 1) 346 4846 Fax: (+36 1) 346 4846 E-mail: nagy.j@met.hu
BHATIA, Satish (focal point) Proposed by: India	India Meteorological Department Mausam Bhawan Lodi Road NEW DELHI 110003 India Tel: +91 11 2462 6021 Fax: +91 11 2464 2249 E-mail: satishbhatia2003@yahoo.com
TRIHADI, Edward (focal point) Proposed by: Indonesia	The Indonesian Agency for Meteorology, Climatology and Geophysics (BMKG) Jl. Angkasa 1 No. 2 Kemayoran CENTRAL JAKARTA 10720 Indonesia Tel: +62 85219895566 Fax: +62 21 4241169 E-mail: edward.trihadi@bmkg.go.id , etrihadi@yahoo.com
IZADFAR, Mostafa (focal point) Proposed by: Iran (Islamic Republic of)	Islamic Republic of Iran Meteorological Organization (IRIMO) P.O. Box 13185-461 TEHRAN

	Iran, Islamic Republic of Tel: +98 21 6607 0038 Fax: +98 21 6607 0005 E-mail: m.izadfar@gmail.com
MORAN, Eoin (focal point) Proposed by: Ireland	The Irish Meteorological Service Glasnevin Hill DUBLIN 9 Ireland Tel: +(353 1) 8064 261 Fax: +(353 1) 8064 247 E-mail: eoin.moran@met.ie
GALLIANI, Alessandro (focal point) Proposed by: Italy	Italian Meteorological Service Aeroporto "F. Baracca" Via di Centocelle 301-00175 ROMA Italy Tel: (+39 06) 4986 7002 Fax: (+39 06) 4986 7002 E-mail: galliani@meteoam.it
KIMATA, Yoshihisa (focal point) Proposed by: Japan	Japan Meteorological Agency (JMA) 1-3-4 Otemachi, Chiyoda-ku TOKYO 100-8122 Japan Tel: +81 3 3211 4966 Fax: +81 39 3211 2032 E-mail: kimata@met.kishou.go.jp
SHRIDEH, Sehim (focal point) Proposed by: Jordan	Meteorological Department P.O. Box 341011, Marka AMMAN 11134 Jordan Tel: (+962 6) 489 4460 Fax: (+962 6) 489 4409 E-mail: sahim_faisal@yahoo.com
MBURU, David (focal point) Proposed by: Kenya	Kenya Meteorological Department (KMD), Ministry of Environment, Water and Natural Resources Dagoretti Corner Ngong Road P.O. Box 30259-00100 NAIROBI Kenya Tel: (+254 20) 386 7880 Fax: (+254 20) 386 7880 E-mail: david.mburu@meteo.go.ke , nm.david@yahoo.com
SONG, Byunghyun (focal point) Proposed by: Korea, Republic of	Korea Meteorological Administration (KMA) 460-18, Shindaebang-dong Dongjak-gu SEOUL 156-720 Republic of Korea

	<p>Tel: (+82-2) 836 2385 Fax: (+82-2) 836 2385 E-mail: song@kma.go.kr, pb_int@kma.go.kr</p>
<p>PATHOUMMADY, Singthong (focal point) Proposed by: Lao, People's Democratic Republic</p>	<p>Direction nationale de la météorologie et de l'hydrologie opérationnelle Ministère de l'Agriculture et des forêts P.O. Box 811 VIENTIANE Lao People's Democratic Republic Tel: (+856) 21 21 5010, (+856) 20 538 9651 Fax: +856 21 223446 Mobile: (+856) 20 538 9651 E-mail: singthong_dmh@etllao.com, p.singthong@yahoo.com</p>
<p>PIROZENOKA, Lubova (focal point) Proposed by: Latvia</p>	<p>Latvian Hydrometeorological Agency 165, Maskavas Str., LV - 1019 RIGA Latvia Tel: +(371) 67 032 651 Fax: +(371) 67 145 154 E-mail: ljuba.pirozenoka@lvgmc.lv</p>
<p>MONNAPULA, Mookho (focal point) Proposed by: Lesotho</p>	<p>Lesotho Meteorological Services P.O. Box 14515 MASERU 100 Lesotho Tel: (+266) 22 312 920 Fax: (+266) 22 312 920 E-mail: monnapula21@yahoo.com</p>
<p>CEGLIENE, Viktorija (focal point) Proposed by: Lithuania</p>	<p>Lithuanian Hydrometeorological Service 6, Rudnios Street LT-2600 VILNIUS Lithuania Tel: +(370 5) 271 5074 Fax: +(370 5) 272 8874 E-mail: viktorija.cegliene@meteo.lt</p>
<p>RANIVOARISOA, Sahondra Vololoniaina (focal point) Proposed by: Madagascar</p>	<p>Direction Générale de la Météorologie Boîte postale 1254 ANTANANARIVO CP 101 Madagascar Tel: +261 20 22 407 75 Fax: +261 20 22 408 23 Mobile: +032 04 111 58 E-mail: sahondrav_ranivoarisoa@yahoo.fr</p>
<p>ABDULLA, Zahari (focal point) Proposed by: Malaysia</p>	<p>Malaysian Meteorological Service Jabatan Perkhidmatan Kajicuaca Malaysia Jalan Sultan</p>

	46667 PETALING JAYA Malaysia Tel: (+603) 7967 8086 Fax: (+603) 7967 8086 E-mail: zahari@met.gov.my
TEKETE, Aliou (focal point) Proposed by: Mali	Direction nationale de la météorologie Boîte postale 237 BAMAKO Mali Tel: +223 76 45 62 94 ou +223 65 47 65 44 Fax: (+223) 220 6204 E-mail: aliou.tek@gmail.com
MOHAMED LEMINE, Sidi Ould (focal point) Proposed by: Mauritania	Service de météorologie Boîte postale 205 NOUAKCHOTT Mauritanie Tel: +222 646 6244 Fax: (+222) 646 6244 E-mail: sidiloudey2@yahoo.fr
HEETUN, Bhye Muslim (focal point) Proposed by: Mauritius	Mauritius Meteorological Services St Paul Road , VACOAS Mauritius Tel: +230 686 1031, 1032 Fax: +230 686 1033 E-mail: mheetun@mail.gov.mu , meteo@intnet.mu
MERROUCHI, Rabia (focal point) Proposed by: Morocco	National Meteorological Service of Morocco, DSI/STTD B.P. 8106 en face de la préfecture Hay Hassani CASABLANCA Morocco Tel: +212 5 22 65 48 32 Fax: +212 5 22 91 32 55 Mobile: +212 661 473 172 E-mail: rabia.merrouchi@gmail.com , merrouchi.rabia@marocmeteo.ma
MACARINGUE, Daniel (focal point) Proposed by: Mozambique	Instituto Nacional de Meteorologia Rua de Mukumbura 164 C.P. 256 MAPUTO Mozambique Tel: +258 21 491 150 Fax: +258 21 491 150 E-mail: daniel_m@inam.gov.mz
BAIDYA, Saraju Kumar (focal point)	Department of Hydrology and Meteorology G.P.O. Box 406 Babar Mahal

Proposed by: Nepal	KATHMANDU Nepal Tel: (+977 1) 425 5920; 424 8808 Fax: (+977 1) 425 5920; 424 8808 E-mail: sarju@dhm.gov.np
ROZEMA, Jan (focal point) Proposed by: Netherlands	Royal Netherlands Meteorological Institute Utrechtseweg 297 NL-3731 GK DE BILT Netherlands Tel: (+31 30) 2206 484ÿ Fax: (+31 30) 2206 484ÿ E-mail: rozema@knmi.nl
QUAYLE, Anthony Michael (focal point) Proposed by: New Zealand	Meteorological Service of New Zealand 30 Salamanca Road P.O. Box 722 WELLINGTON 6140 New Zealand Tel: +(64 4) 470 0759 Fax: +(64 4) 473 5231 E-mail: quayle@metservice.com
HASSANE, Abdou (focal-point) Proposed by: Niger	Direction de la météorologie nationale B.P. 12246 NIAMEY Niger Tel: (+227) 20 73.21.60 Fax: (+227) 20 73.21.60 E-mail: dmn@intnet.ne , abdoucvm@yahoo.fr
OGUNYEMI, Olaolu Akinsola (focal point) Proposed by: Nigeria	Nigerian Meteorological Agency PMB 12542 LAGOS Nigeria Tel: (+234) 803 526 6128 Fax: (+234) 803 526 6128 E-mail: oaordg99@yahoo.com
SHAH, Naeem (focal point) Proposed by: Pakistan	Pakistan Meteorological Department University Road KARACHI 75270 Pakistan Tel: +92-21 926 1412 Fax: +92-21 926 1405 E-mail: naeem_shah56@yahoo.com
VERGARA, Cesar Osorio (focal point) Proposed by: Panama	ETESA Apartado Postal 5285 PANAMA 5 Panama Tel: (+507) 501 3987 Fax: (+507) 501 3987 E-mail: cosorio@ETESA.com.pa

<p>VEGA MANSILLA, Geógrafo Elisa Mercedes de la (focal point)</p> <p>Proposed by: Peru</p>	<p>Servicio Nacional de Meteorología e Hidrología (SENAMHI) Jr. Cahuide 805, 4to. Piso Casilla Postal 1308 LIMA 11 Peru Tel: (+51-1) 614 1414 Fax: (+51-1) 614 1414 E-mail: senamhi@senamhi.gob.pe</p>
<p>MROZINSKI, Lukaz (focal point)</p> <p>Proposed by: Poland</p>	<p>Institute of Meteorology and Water Management (IMGW) 61 Podlesna Street 01-673 WARSAW Poland Tel: +(48 22) 569 4344 Fax: +(48 22) 569 4245 E-mail: lukasz.mrozinski@imgw.pl</p>
<p>TRUKHIN, Vladimir (focal point)</p> <p>Proposed by: Russian Federation</p>	<p>ROSHYDROMET 12 Novovagankovsky Street 123242 MOSCOW Russian Federation Tel: (+7 499) 255 5716 Fax: (+7 499) 255 5716 E-mail: usnk@mcc.mecom.ru</p>
<p>AUGUSTE, Thomas (focal point)</p> <p>Proposed by: Saint Lucia</p>	<p>Saint Lucia Meteorological Service Ministry of Infrastructure, Port services and Transport Union Unknown CASTRIES Saint Lucia Tel: +1 758 450 1210, +1 758 454 6550 Fax: +1 758 453 2769, +1 758 454 9705 Mobile: +1 758 721 7106 E-mail: tauguste@gosl.gov.lc, tomauguste@hotmail.com</p>
<p>CISS, Moustapha (focal point)</p> <p>Proposed by: Senegal</p>	<p>Agence nationale de la météorologie du Sénégal Aéroport Léopold Sédar Senghor BP 8257 DAKAR-YOFF Senegal Tel: +(33) 869 5339 Fax: +(33) 869 5339 +(33) 820 1327 E-mail: taphaciss@gmail.com</p>
<p>AMELIE, Vincent Josee (focal point)</p> <p>Proposed by: Seychelles</p>	<p>National Meteorological Services Division of Policy, Planning & Services Ministry of Environment & Transport P.O. Box 1145 Botanical Gardens VICTORIA Seychelles</p>

	Tel: +248 670 400, +(248) 384066/384068 Fax: +248 670 400, +(248) 384078 E-mail: v.amelie@meteo.gov.sc
KANAK, Jan (focal point) Proposed by: Slovakia	Slovak Hydrometeorological Institute Jeséniova 17 P.O. Box 15 833 15 BRATISLAVA 37 Slovakia Tel: +421 2 4488 1106 Fax: +421 2 4488 1859 E-mail: jan.kanak@shmu.sk
DIVJAK, Marjan (focal point) Proposed by: Slovenia	Slovenian Environmental Agency Vojkova Ulica 1/B SI-1000 LJUBLJANA Slovenia Tel: (+386-1) 478 40 93 Fax: (+386-1) 478 40 93 E-mail: Marjan.Divjak@gov.si
FOTA, Musa Ahmed (focal point) Proposed by: Sudan	Sudan Meteorological Authority (SMA) P.O. Box 574 KHARTOUM Sudan Tel: +(24 911) 300 162 Fax: +(24 911) 300 162 E-mail: info@ersad.gov.sd , ersad@sudanmail.net
NILSSON, Stefan (focal point) Proposed by: Sweden	Swedish Meteorological and Hydrological Institute (SMHI) Folkborgsvaegen 17 SE-601 76 NORRKOEPING Sweden Tel: (+4611) 4958000 Fax: (+4611) 4958000 E-mail: stefan.nilsson@smhi.se
GRUETER, Estelle (focal point) Proposed by: Switzerland	MeteoSwiss Operation Center 1 PO Box 257 CH-8058 Zurich Airport Switzerland Tel: +(41 58) 460 92 68 Fax: +(41 58) 460 90 01 E-mail: estelle.grueter@meteoswiss.ch
ATKI, Akram (focal point) Proposed by: Syria	Meteorological Department Ministry of Defence Mazzeh Jabal P.O. Box 4211 DAMASCUS Syrian Arab Republic Tel: (+963) 11 6620552/4 Fax: (+963) 11 6620552/4 E-mail: syr-meteo@mail.sy

<p>KABELWA, Hamza A. (focal point)</p> <p>Proposed by: Tanzania (United Republic of)</p>	<p>Tanzania Meteorological Agency Ubungo Plaza 3056 Dar es Salaam United Republic of Tanzania Tel: +255 22 2460 706 -707 -708 Fax: +255 22 2460 735 Mobile: +254 722 985 730 E-mail: hamza.kabelwa@meteo.go.tz</p>
<p>YUSABYE, Chongkolnee (focal point)</p> <p>Proposed by: Thailand</p>	<p>Meteorological Development Bureau Ministry of Information and Communication Technology 4353 Sukhumvit Road Bang-Na BANGKOK 10260 Thailand Tel: (+66 2) 398 9868 Fax: (+66 2) 398 9868 E-mail: chongkolnee@tmd.go.th</p>
<p>KPABEBA, Gnatoulouma (focal point)</p> <p>Proposed by: Togo</p>	<p>Direction de la météorologie nationale Ministère des transports et des ressources hydrauliques Boîte postale 1505 LOME Togo Tel: (+228) 261 5752 or (+228) 22612760 / +(228) 222 4838; 221 4806 Fax: (+228) 261 5752 +(228) 222 4838; 226 5236 Mobile: (+228) 90271032 E-mail: kpababagna@yahoo.fr</p>
<p>NOEL, Marlon (focal point)</p> <p>Proposed by: Trinidad Tobago</p>	<p>Trinidad and Tobago Meteorological Service P.O. Box 2141 National Mail Centre PIARCO Trinidad and Tobago Tel: (+868) 669 4282 Fax: (+868) 669 4282 E-mail: dirmet@metoffice.gov.tt</p>
<p>AHMED, Hmam (focal point)</p> <p>Proposed by: Tunisia</p>	<p>Ministère du Transport, Institut National de la Météorologie Rue Mohamed Ali Akid B.P. 156 Charguia 2035 TUNIS-CARTHAGE Tunisie Tel: (+216) 71 772 609; (+216) 71 773 400 Fax: (+216) 71 772 609; (+216) 71 773 400</p>
<p>DEMIR, Fatih (focal point)</p> <p>Proposed by: Turkey</p>	<p>Turkish State Meteorological Service (TSMS) P.O. Box 401 ANKARA</p>

	<p>Turkey Tel: +90 312 302 2619 Fax: +90 312 302 2619 E-mail: fdemir@mgm.gov.tr</p>
<p>KOSOVETS-SKAVRONSKAYA, Elena (Ms) (focal point)</p> <p>Proposed by: Ukraine</p>	<p>State Committee for Hydrometeorology 6, Zolotovorotskaya Street 252601 MSP KIEV 34 Ukraine Tel: (+380 44) 239 9333 Fax: (+380 44) 239 9333</p>
<p>GILBERT, Simon (focal point)</p> <p>Proposed by: United Kingdom</p>	<p>Met Office FitzRoy Road EXETER EX1 3PB Devon United Kingdom of Great Britain and Northern Ireland Tel: +44 1392 88 4103 Fax: +44 1392 88 5681 E-mail: simon.gilbert@metoffice.gov.uk</p>
<p>DAVRON, Azimov (focal point)</p> <p>Proposed by: Uzbekistan</p>	<p>BOSHGIDROMET 72 K. Makhsumov Street , 700052 TASHKENT Uzbekistan Tel: +99 871 237 3511 Fax: +99 871 233 2025 E-mail: uzhymet@meteo.uz</p>