

**Presentation at the UNESCO IOC Meeting**

**3 May, 2017**

**By  
Director, Education and Training Office**



**WMO OMM**

**World Meteorological Organization  
Organisation météorologique mondiale**

# ETR Office Activities

- Fellowships (including Fellowships Impact Study)
- Short-term training (and RTC guidance)
- RTC assessment process (*new Guide*)
  
- Competency framework implementation (*new Guide*)
- Course for Trainers (Online and Workshop) using WMO Competency Framework
- Management Training curriculum development
  
- Continuous review of new and emerging training needs (Survey, Education and Training Symposium-SYMET)
- Cooperation and collaboration with UN agencies and other training partners
  
- Developing new training partnerships (e.g., Global Campus) Promoting E&T resource development and public outreach
- Internal coordination of education and training activities

## Capacity Development through Education and Training (Summary)

1. Capacity Development through Formal Education (Fellowships)
2. WMO Capacity Development through Continuous Education (Training)
3. Cooperation and Support to WMO Regional Training Centers and Allied Institutions
4. Support Education and Training Standards Compliance and Dissemination of New Guidance Materials into Education and Training
5. Strengthen Management Capacity of Meteorological and Hydrological Services
6. Effective Management and Delivery of ETR Activities

## Capacity Development through Education and Training (Fellowships)

1. Impacts evaluation on Fellowships programme
2. Compilation of statistics on HR Capacity needs
3. Implementation of short-term Fellowships including familiarization visits of newly appointed Permanent Representatives
4. Implementation of long-term Fellowships
5. Implementation of Fellowships for Refugees and disaster victims
6. Outreach on school and popular education

## Capacity Development through Continuous Education (Training)

1. Survey and dissemination of results on departmental training needs, priorities and resources
2. Compilation and report of statistics on human resources capacity development needs
3. Support for Member staff participation in continuing education opportunities (short term training)
4. Increased development and use of distance learning opportunities, including V-Lab
5. Promotion of training resource sharing through WMO Global Campus Feasibility Study

## Cooperation and Support to WMO Regional Training Centers and Allied Institutions

1. Assist in checking compliance with qualifications frameworks (BIP-M, BIP-MT, etc.) (Compliance checking tools shared with training institutions)
2. Support to RTC Directors and Staff (Education and Training Symposium (SYMET-13), Seminars on Management of Training Institutions for RTC Directors, site visits for advisory services)
3. Periodic external reviews of RTCs for reconfirmation (approximately 4 RTCs reviewed each year, travel costs)
4. Promote RTCs in their regions, including linking to international development goals (COP Paris Agreement, Sendai, SDG, SIDS, etc.)
5. Coordination with allied institutions (e.g., national training centers and universities) (Participation in events and site visits for strategic planning, COCOM, SYMET)
6. Assist in improvements to training processes and standards (WMO Competencies for Training Providers, regional WMO Online Course for Trainers, regional WMO Training Development Workshop, CALMet, Eumetcal Workshop)
7. Facilitation for sharing of experts and knowledge between training institutions (list of willing experts and willing receiving institutions, 4 cooperation projects implemented)
8. Development and promotion of curriculum on management training

## Support Education and Training Standards Compliance and Dissemination of New Guidance Materials into Education and Training

1. Survey and dissemination of results on departmental training needs, priorities and resources (Report shared internally and externally)
2. Guide on Management of Training Institutions (Consulting expert - 2016, WMO ETR, LCP)
3. Guide on Competency (Consultant assignment, C/TRA, LCP publication)
4. Model content, curricula and courses on scientific advances and recommended practices shared with training partners (WMO ETR, Technical departments)
5. CCI Meeting and CCI Guide contributions



## Strengthen Management Capacity of Meteorological and Hydrological Services

1. Needs assessment conducted (Non-volunteer consultants and travel, USA Volunteer Expert)
2. Increased visibility of existing resources on management and dissemination of new resources
3. Curriculum plan with options for delivery methods, including plans for HRD Workshop (development 2017, delivery 2018)
4. Management training incorporated as a topic in all Regional Association meetings
5. Advisory services to NMHSs (including exchange programmes)



## Effective Management and Delivery of ETR Activities

1. Restructuring of ETR office and establishment of secretariat-side Education and Training Committee
2. Management of office infrastructure, database, including communications, consumables
3. Coordination with the UN and other international organizations
4. Staff training and exposure to professional/career/work-related opportunities

# WMO RTCs and other ETR Partners



# WMO RTCs

Region	Country (# of Components)
RA-I	Algeria
	Angola
	Egypt
	Kenya <sup>(2)</sup>
	Madagascar <sup>(2)</sup>
	Niger <sup>(2)</sup>
	Nigeria <sup>(2)</sup>
	South Africa
RA-II	China <sup>(2)</sup>
	India <sup>(4)</sup>
	Iraq
	Islamic Republic of Iran
	Qatar
	Republic of Korea
	Uzbekistan
	RA-III
Brazil	
Peru	
Venezuela	
RA-IV	Barbados
	Costa Rica
RA-V	Indonesia <sup>(2)</sup>
	Philippines <sup>(2)</sup>
RA-VI	Israel
	Italy
	Russian Federation <sup>(3)</sup>
	Turkey

# Fellowships – SIDS

## 1 January 2013 to 1 May 2017

Region	Number of countries	Number of fellowships implemented
Region Association I (Africa)	6	25
Region Association II (Asia)	1	5
Region Association III (South America)	2	10
Region IV (Caribbean)	20	66
Region V (Pacific)	9	35
<b>Total</b>	<b>38</b>	<b>141</b>

# Other Current Training Partners

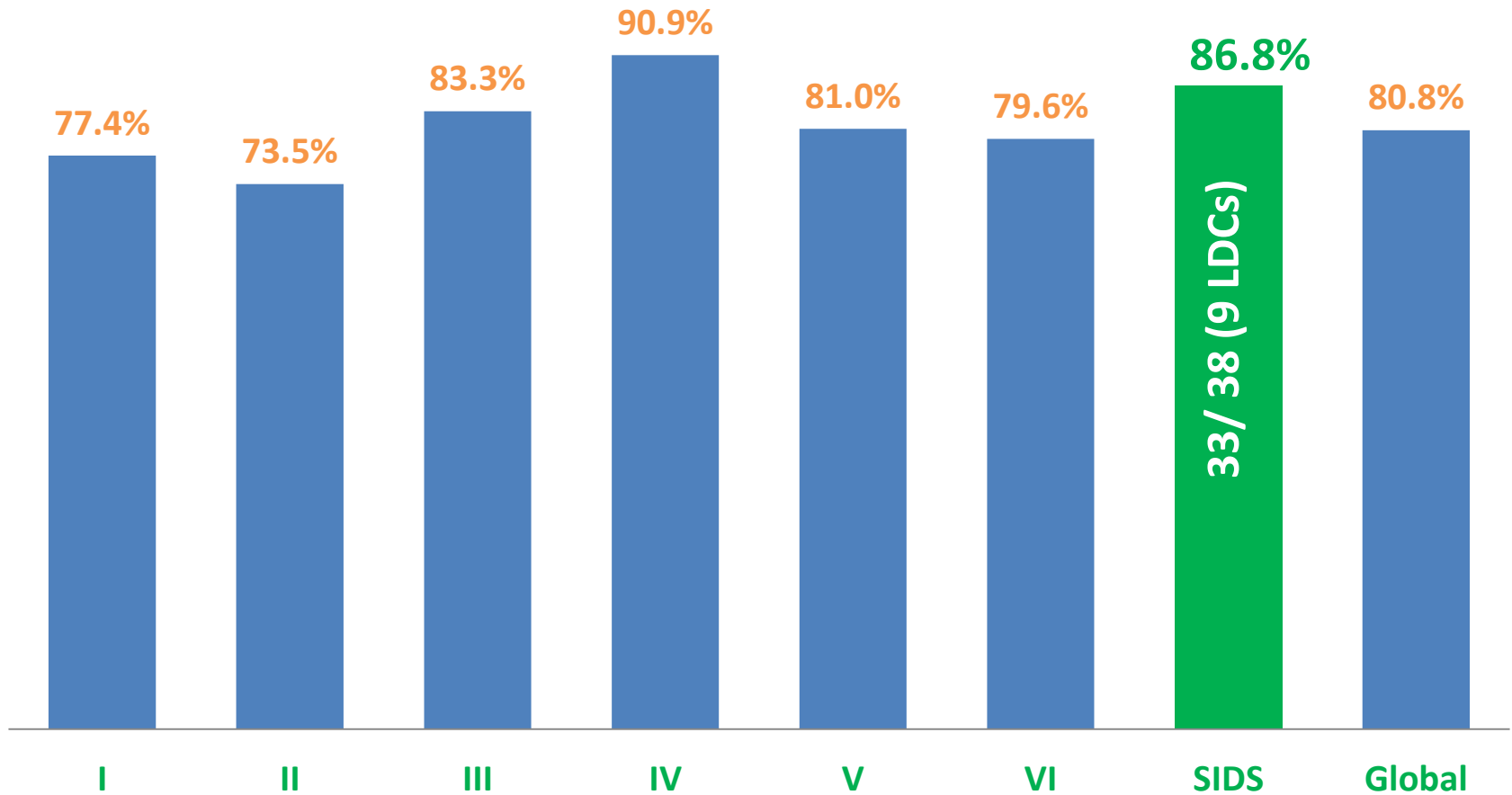
## Fellowships (and short courses)

National Institute for Space Research (INPE)
Hohai University (HOHAU)
Ecole Nationale de la Météorologie (ENM)
Leibniz Universität Hannover (LUH)
The World Academy of Sciences (TWAS)
Kyoto University (KU)
Ewha Woman's University (EWAH)
Institute for Water Education (IHE)
European Centre for Medium Range Weather Forecast (ECMWF)
MetOffice College (MOC)
University of Reading (UR)
National Oceanic and Atmospheric Administration (NOAA)
Agencia Estatal de Meteorología (AEMET)

## Additional Partners

The Hong Kong Observatory
UCAR and COMET
COSPAR (Committee on Space Research)
EUMETSAT
Australian Bureau of Meteorology Training Center
NOAA National Hurricane Center
Deutscher Wetterdienst (DWD)
Finnish Meteorological Institute (FMI)
WMO VLab Centers of Excellence
...and many more

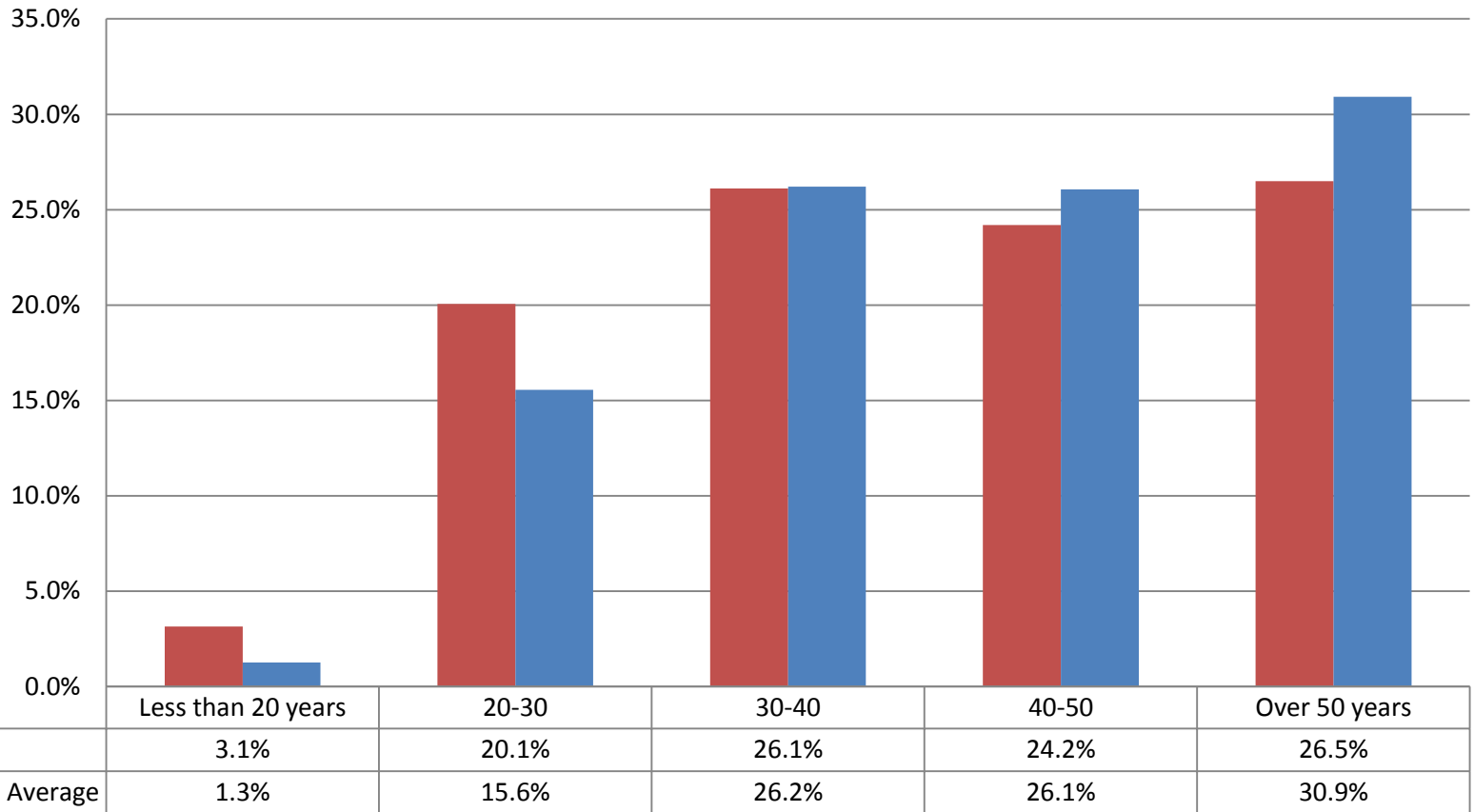
# Response Rates (2016)



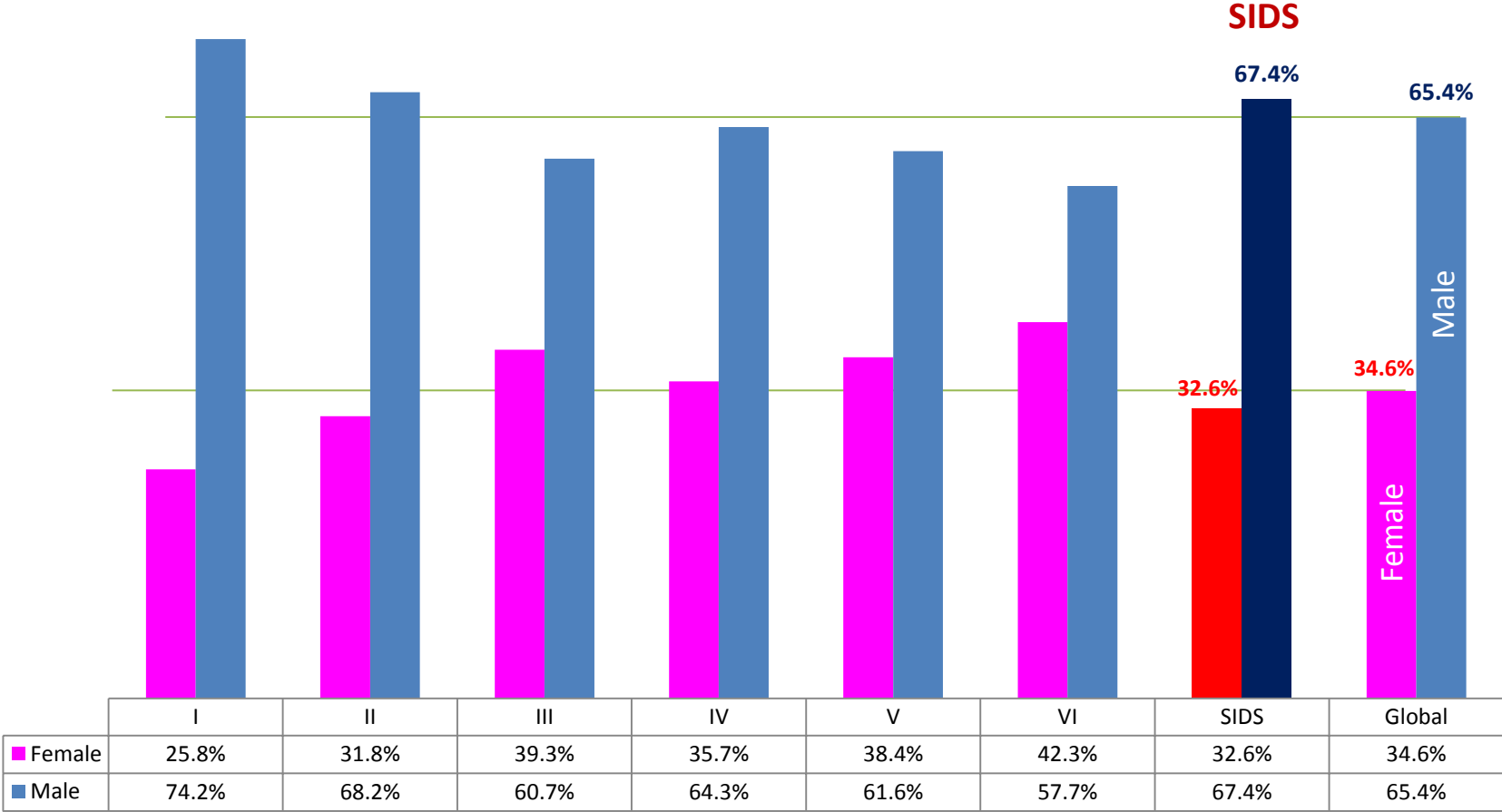
# SIDS

## (Staff situation by age bracket)

■ SIDS ■ Global Average



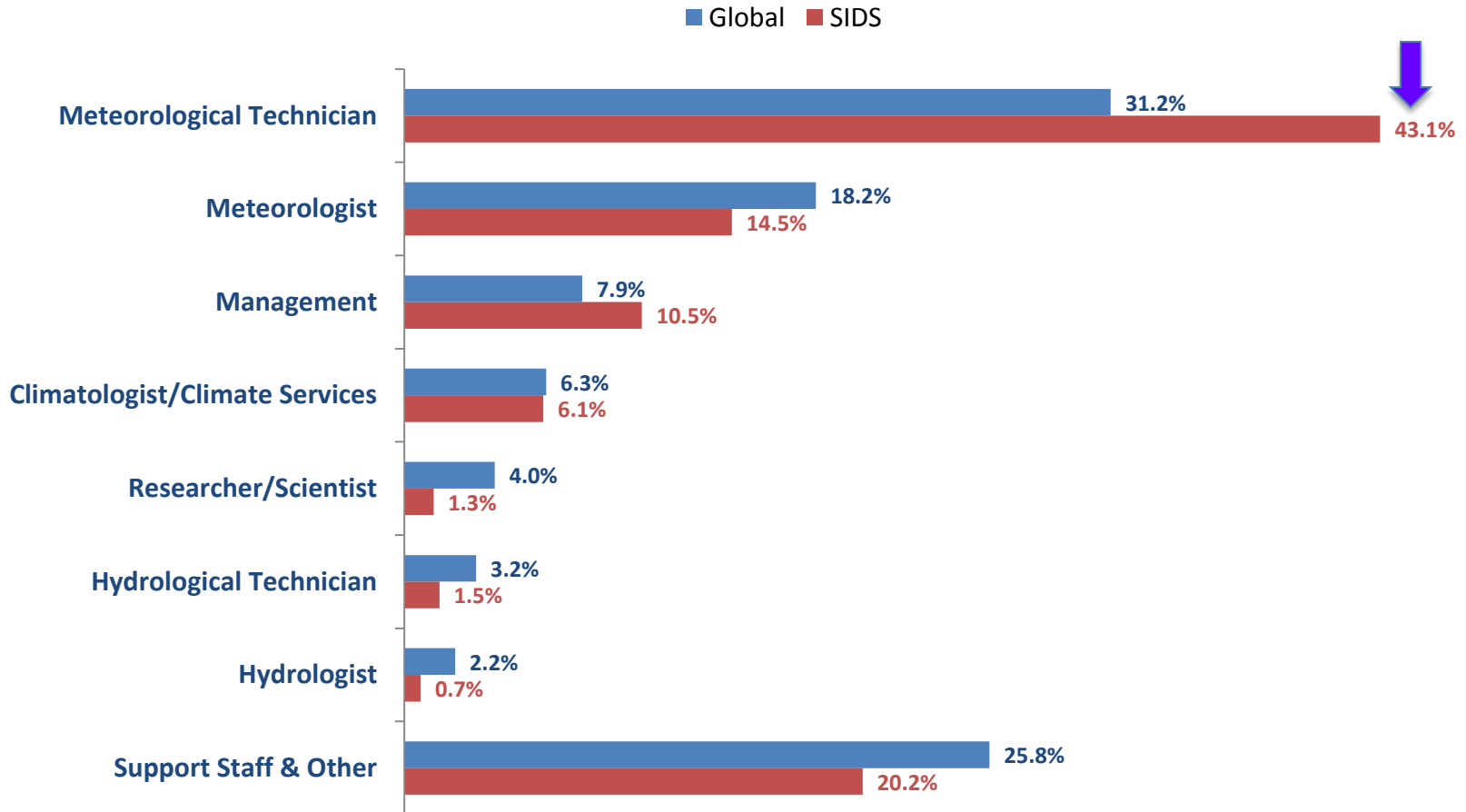
# Staff situation by gender



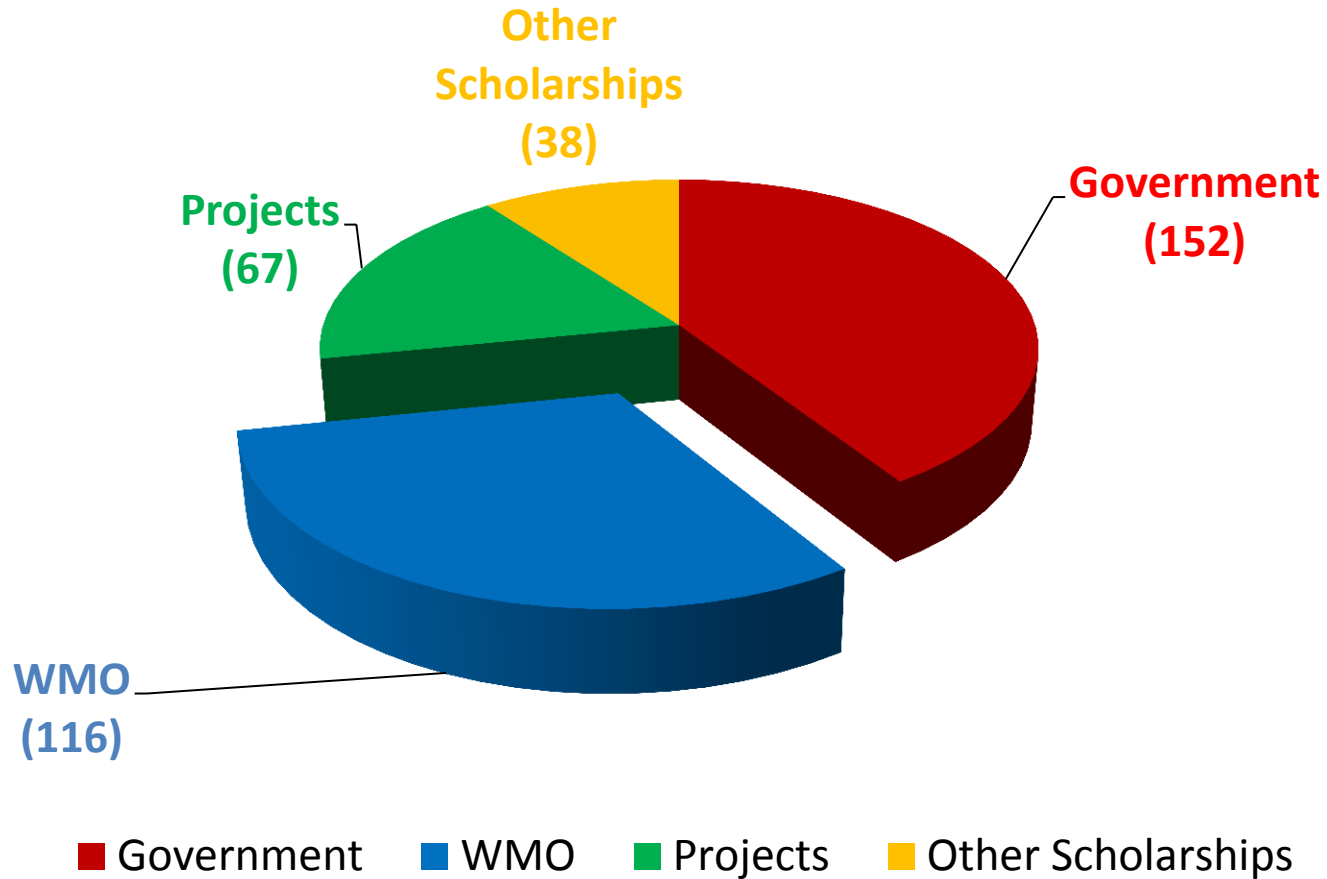


# SIDS

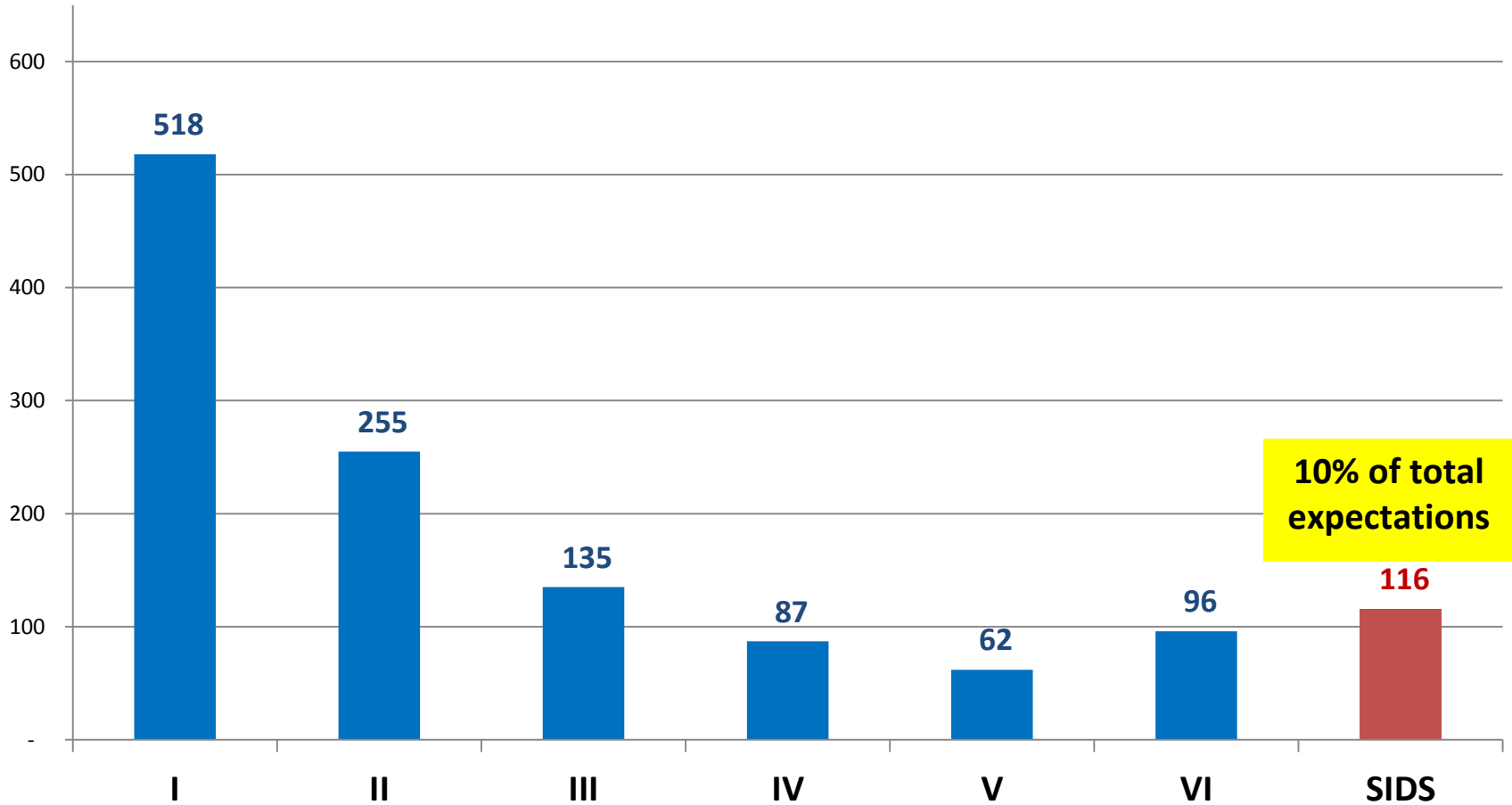
(Staff situation by job categories)



# Experts expected to be trained in 2017 (Global)

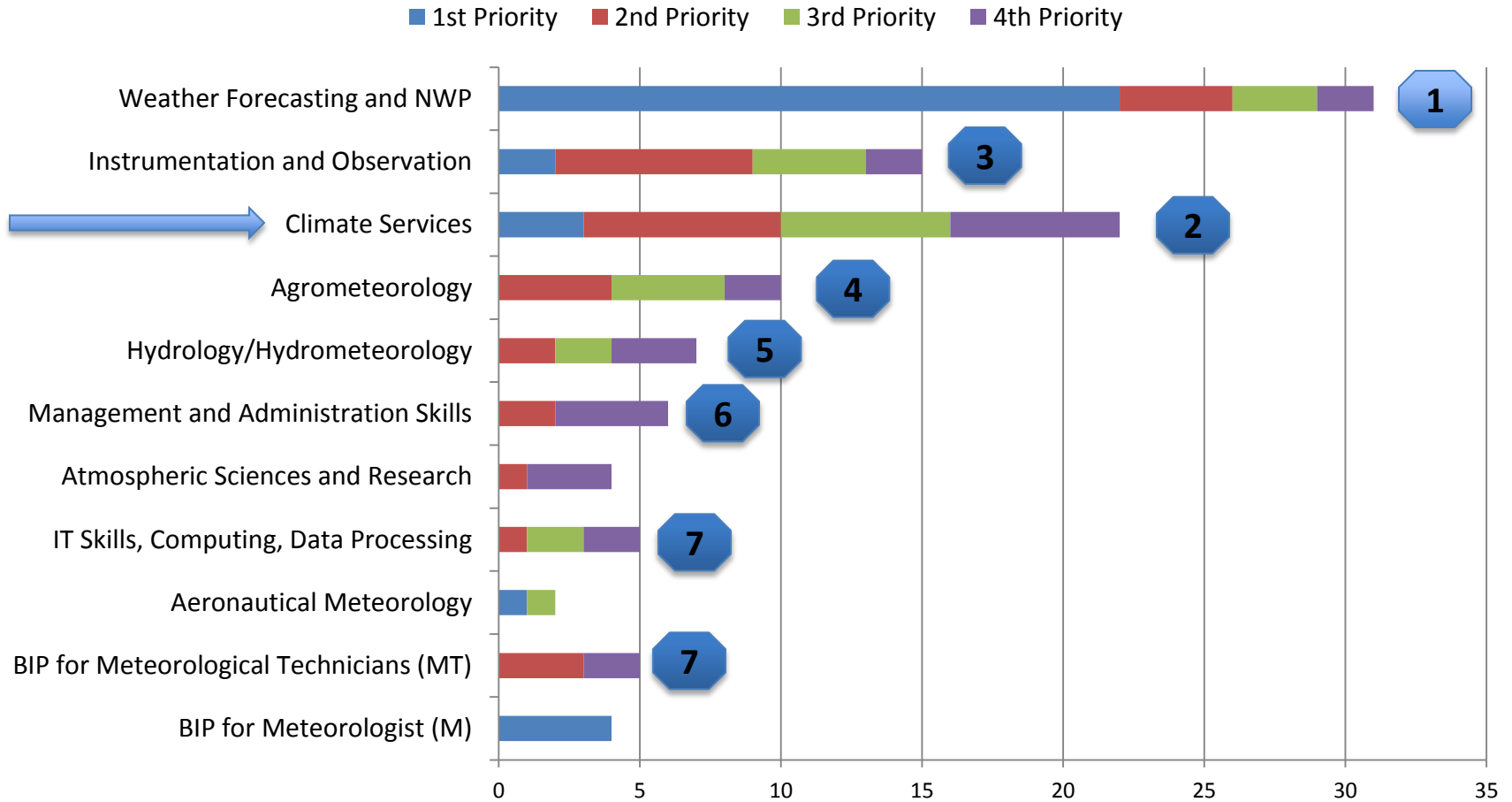


# Experts expected to be trained in 2017 through the support of WMO



# SIDS

## (Training Priorities)



**WMO Programme and Activities on  
Capacity Development in Small Island  
Developing States (SIDS), Least  
Developed Countries (LDCs)  
& Member Island Territories (MITs)**



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# WMO Programme and Priorities

## Six Priority Areas:

- Engagement of NMHSs on national governance frameworks for DRR
- National Strategic Planning for NMHSs
- Strengthening of operational and technical capacities for impact-based forecasting (including prediction capabilities for marine forecasting, flash flooding and storm surges)
- Communication and feedback mechanisms
- Research Capacity
- Sustainability of investments in DRR

# Operationalization of WMO Programme through existing Initiatives & Resources in SIDS, LDCs and MITs

## Climate Risk Early Warning System (CREWS) initiative

- Project on “Building Resilience to high-impact hydro-meteorological events through strengthening Multi-Hazard Early Warning Systems (MHEWS) in SIDS and Southeast Asia” (*funded by the Government of Canada with a total value of CAD 10 million*)
  - SIDS component of the project covers Africa, Caribbean and Pacific
- Strengthening national capacities for EWS Service Delivery in Burkina Faso (CREWS-Burkina Faso)

## Coastal Inundation Forecasting Projects

- Improving operational forecasts and warnings capability for coastal inundation through the Coastal Inundation Forecasting Demonstration Projects (CIFDP) (funded by Korean Meteorological Administration and others)
  - *Covering Fiji and the Dominican Republic*

# Operationalization of WMO Programme through existing Initiatives & Resources in SIDS, LDCs and MITs

## Programme for implementing GFCS at regional and national scales

Supporting strategic planning, disaster risk management mechanisms and NMHSs engagement in South West Pacific, Caribbean and Indian Ocean SIDS through the Programme for implementing GFCS at regional and national scales

- Supported Trinidad and Tobago, Kiribati and Papua New Guinea in developing their NSPs. The process to develop NSP for Fiji is underway.
- National consultations for climate services have taken place in Fiji, Belize and Dominica and regional consultations and workshops have taken place for SIDS in the Caribbean and in the Indian Ocean
- Support to national and regional climate outlook forum. NCOF & RCOF were held in the Pacific and Caribbean (Belize, Dominica, Sri Lanka, Tonga and Kiribati). Participated at Greater Horn of Africa COF



# Operationalization of WMO Programme through existing Initiatives & Resources in SIDS, LDCs and MITs

## Programme for building regional climate capacity in the Caribbean

- Leveraging regional capacity through the USAID-Programme for building regional climate capacity to support Caribbean SIDS and MITs
- support to Caribbean Institute of Meteorology & Hydrology (CIMH)

## Project on "Climate Services to Reduce Vulnerability in Haiti"

Building operational and technical capacities of the "Unité Hydrologique et Météorologique" de Haiti (*Project on "Climate Services to Reduce Vulnerability in Haiti" is funded by the Government of Canada and has a total value of CAD 6,5 Million*)

# Future Activities

## Programme for SIDS, LDCs and MITs in the future include:

- Continuation of the activities implemented under the various projects
- Enhanced resource mobilisation through Green Climate Fund to:
  - achieve efficiency and to increase impact
  - markedly and sustainably build greater resilience to hydro-meteorological hazards
  - contribute to sustainable development in WMO SIDS, LDCs and MITs

# Conclusion

- A key need of ALL Members is capacity development
- Investment in human resources development is critical
- Diversity in training needs and competencies across Technical Departments
- Each department needs to take the lead in identifying ETR needs in their areas
- ETR Office shares responsibility to develop competencies and guidance for our training partners to deliver training in multiple formats
- Work with training partners to address ETR for WMO Priorities
- Maximise use of WMO resources, and minimise duplication
- Basic education, continuing education, and enhancing research capacity are all responsibilities of WMO
- Collaborate to build a more coherent and effective network of training partners

# Thank you Merci



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