





# ASSOCIATED PROGRAMME ON FLOOD MANAGEMENT



**FINAL ANNUAL REPORT (2015-2016)** 

August 2016 Geneva, Switzerland





The Associated Programme on Flood Management (APFM) is a joint initiative of the World Meteorological Organization (WMO) and the Global Water Partnership (GWP). It promotes the concept of Integrated Flood Management (IFM) as a new approach to flood management. The programme is financially supported by the Government of Switzerland and United States Agency for International Development (USAID).



The World Meteorological Organization (WMO) is a specialized agency of the United Nations. It coordinates the activities of the meteorological and hydrological services of 191 countries and territories and is the authoritative voice on weather, climate and water.



The Global Water Partnership (GWP) is an international network open to all organizations involved in water resources management. It was created in 1996 to foster Integrated Water Resources Management (IWRM).



# **ANNUAL REPORT (2015-2016)**

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#### LIST OF SUB MATERIALS

- I. (a) Strategic Plan 2014-2018
  - (b) Activity Plan of APFM Phase IV 2014-2015
  - (c) APFM review inception report

# II. Flood Management Policy Series

(a)	IFM Concept Paper 3rd Edition	(en, fr, sp, ru, jp, ch)
(b)	Legal and Institutional Aspects of IFM	(en, fr, sp, jp, srb)
(c)	Environmental Aspects of IFM	(en, fr, sp, jp)
(d)	Social Aspects and Stakeholder Involvement in IFM	(en, fr, sp)
(e)	Economic Aspects of IFM (1st and 2nd edition)	(en)

(f) Primer on Integrated Flood Management- Final Draft

#### III. IFM Tools

- (a) Formulating a Basin Flood Management plan
- (b) Conducting Flood Loss Assessments (v 2.0)
- (c) Applying Environmental Assessment for Flood Management (v 2.0)
- (d) Organizing Community Participation for Flood Management (v 2.0)
- (e) Reservoir Operations and Managed Flows (v 2.1)
- (f) Urban Flood Risk Management
- (g) The Role of Land-Use Planning in Flood Management (v 2.0)
- (h) Risk Sharing In Flood Management (v 2.0)
- (i) Flood Management in a Changing Climate
- (j) IFM as an Adaptation Tool for Climate Change (Case Studies)
- (k) Flood Emergency Planning (v2.0)
- (I) Management of Sediment-related Risks
- (m) Conservation and Restoration of Rivers and Floodplains
- (n) Urban Flood Management in a Changing Climate
- (o) Flood Proofing
- (p) Management of Flash Floods
- (q) Coastal and Delta Flood Management
- (r) Transboundary Flood Management
- (s) Flood Forecasting and Early Warning
- (t) Flood Mapping
- (u) Regulations and Technical Standards of Flood Management
- (v) Health and Sanitation Aspects of Flood Management
- (w) The Role of the Media in Flood Management
- (x) Social Impact Assessment and Public Perception of Flood Risk in IFM-French
- (xa) Social Impact Assessment and Public Perception of Flood Risk in IFM-English
- (y) Effectiveness of Flood Management Measures



- (z) Crisis Mapping and Crowdsourcing in Flood Management
- (aa) Flood Management in a Multi-hazard Environment for the Private Sector
- (ab) Technical Assistance for the Preparation of an Advocacy Strategy -English
- (ac) Technical Assistance for the Preparation of an Advocacy Strategy -Spanish

# IV. National and Regional support activities

- (a) Proceedings of the Workshop on Flood Risk Management for the Sava River Basin
- (b) Concept note for the Implementation of IFM on the Volta River Basin
- (c) Guidelines for the Flood Management Needs Assessment of Volta countries
- (d) Comments to the report on the Analysis of the Extreme Flood in 2013 in the Amur River
- (e) Thailand and Lao Community-Based Flood Management Pilot Project (Final Report)
- (f) Manual on Community-based flood management (Thailand)
- (g) Manual on Community-based flood management (Lao PDR)
- (h) Voices from the field
- (i) APFM Information note for the EC Working Group on DRR
- (j) Overview (by UNECE) on the status of activities in the Dniestr basin

#### V. Outreach

- (a) Newsletters (No.37, and No.38)
- (b) Article "Giving value to popular knowledge for monitoring natural hazards"
- (c) Article "The role of science and research in WMO flood management activities"
- (d) List of downloaded IFM Tools

#### VI. APFM Past Reports

- APFM Report No. 1 Interim Steering Committee meeting Aug 2001
- APFM Report No. 2 First coordination meeting Jan 2002
- APFM Report No. 3 First Consultative meeting on Building Partnerships Feb 2002
- APFM Report No. 4 Inception report
- APFM Report No. 5 First Steering Committee meeting Mar 2002
- APFM Report No. 6 Second consultative meeting on Building Partnerships Nov 2002
- APFM Report No. 7 Annual report 2002-2003 (without annexes)
- APFM Report No. 8 Second Steering Committee meeting June 2003
- APFM Report No. 9 Annual Report 2003-2004
- APFM Report No. 10 ACMC meeting Jun 2004
- APFM Report No. 11 Annual Report 2004-2005
- APFM Report No. 12 ACMC meeting Jun 2005
- APFM Report No. 13 Annual Report 2005-2006

<sup>\*</sup>Bold indicates materials that are newly added or updated in this report. For the following materials, only new publications are mentioned.



APFM Report No. 14 - Activity plan of APFM Phase II

APFM Report No. 15 - Activity plan 2006-2007

APFM Report No. 16 - ACMC meeting May 2006

APFM Report No. 17 - Phase I Final report

APFM Report No. 18 - Annual Report 2006-2007

APFM Report No. 19 - ACMC meeting Jun 2007

APFM Report No. 20 - Annual Report 2007-2008

APFM Report No. 21 - ACMC meeting Jun 2008

APFM Report No. 22 - Annual Report 2008-2009

APFM Report No. 23 - ACMC meeting Jun 2009

APFM Report No. 24 - Annual Report 2009-2010

APFM Report No. 25 - ACMC meeting Jun 2010

APFM Report No. 26 - Phase II Final report

APFM Report No. 27 - Annual Report 2010-2011

APFM Report No. 28 - ACMC meeting Jun 2011

APFM Report No. 29 - Annual Report 2011-2012

APFM Report No. 30 - ACMC meeting Jun 2012

APFM Report No. 31 - Annual Report 2012-2013

APFM Report No. 32 - ACMC meeting Jun 2013

APFM Report No. 33 - Annual Report 2013-2014

APFM Report No. 34 - ACMC Report 2014

APFM Report No. 35 - Strategic Plan 2014-2018

APFM Report No. 36 - Activity Plan of APFM Phase IV 2014-2015

APFM Report No. 37 - Annual Report 2014-2015

APFM Report No. 38 - ACMC Report 2015

# **ACRONYMS**

AC/MC Advisory Committee/Management Committee

ADPC Asian Disaster Preparedness Center

AECID Agencia Española de Cooperación Internacional para el Desarrollo - Spanish Agency for

International Development Cooperation

AEMET Agencia Estatal de Meteorología
AMCOW African Ministers' Council on Water
ANBO African Network of Basin Organizations

APFM Associated Programme on Flood Management

BFG German Federal Institute of Hydrology
BSH WMO Basic Systems in Hydrology Division
BWDB Bangladesh Water Development Board

Cap-Net UNDP Capacity Development in Sustainable Water Management/UNDP

CBFM Community-Based Flood Management



CBHWR WMO Capacity Building in Hydrology and Water Resources Management Office

CDSF Clim-Dev Special Fund

CEH UK Centre for Ecology & Hydrology

CERAH Geneva University Centre for Education and Research in Humanitarian Action

CERFE Centro di Ricerca e Documentazione Febbraio 74

CERG-C Geneva University Specialization certificate for the assessment and management of

geological and climate related risk

CIMA International Centre on Environmental Monitoring

CHMU Český hydrometeorologický ústav - Czech Hydrometeorological Institute

CHy WMO Technical Commission for Hydrology CONAGUA Mexico's Comisión Nacional del Agua

COP Conference of Parties

CPA WMO Communications and Public Affairs Office

CRAHI Centre de Recerca Aplicada en Hidrometeorologia – Catalonia University

CWP Country Water Partnership
DHI Danish Hydraulic Institute

DINAC Dirección Nacional de Aeronautica Civil

DRM Disaster Risk Management

DRR Disaster Risk Reduction (Also a WMO Programme)

DSS Decision Support System

DWD Deutscher Wetterdienst - German Meteorological Office

E2E End-to-end

EAWAG Eidgenössische Anstalt für Wasserversorgung, Abwasserreinigung und Gewässerschutz -

Swiss Federal Institute of Aquatic Science and Technology

EC European Commission

ETH Eidgenössische Technische Hochschule

ETR Education and Training Office
EUFD European Union Floods Directive

EU-FP7 European Union 7<sup>th</sup> Framework Programme

EVD Ebola Virus Disease

FFEWS Flood Forecasting and Early Warning System

FFI-AG Advisory Group on WMO Flood Forcasting Initiative

FICH/UNL Facultad de Ingeniería y Ciencias Hídricas/Universidad del Litoral - Faculty of Engineering

and Hydro-sciences of the Litoral University

FOEN Federal Office for the Environment, Switzerland

GFCS Global Framework for Climate Services

GIS Geographic Information System

GISIG Geographical Information Systems International Group
GIZ Deutsche Gesellschaft für Internationale Zusammenarbeit

GRID/UNEP Global Risk Data Platform
GWA Gender and Water Alliance



GWP Global Water Partnership

HABITAT-III United Nations Conference on Housing and Sustainable Urban Development

HYCOS Hydrological Cycle Observing System

IAB Inter-Agency Board

IAEA International Atomic Energy Agency

IAHS International Association of Hydrological Sciences ICFM6 International Conference on Flood Management 6

ICHARM International Centre for Water Hazard

ICID International Commission for Irrigation and Drainage

ICIMOD International Centre for Integrated Mountain Development

IDMP Integrated Drought Management Programme

IFM Integrated Flood Management

IPA Instrument for Pre-Accession Assistance

IRSN Institut de radioprotection et de sûreté nucléaire

ISRBC International Sava River Basin CommissionIUCN International Union for Conservation of NatureIUSS Pavia Istituto Universitario di Studi Superiori di Pavia

IUWM Integrated Urban Water Management
IWA International Water Association

IWRA International Water Resources Association, Scotland

IWRM Integrated Water Resources ManagementJICA Japan International Cooperation AgencyKWRA Korea Water Resources AssociationLIMCOM Limpopo Watercourse Commission

MFA Ministry of Foreign Affairs

NGO Non-Governmental Organization NiMET Nigerian Meteorological Agency

NMHS National Meteorological and Hydrological Service

OFDA US Agency for International Development Office of Foreign Disaster Assistance

ORP Operational and Resource Plan

OSCE Organization for Security and Co-operation in Europe
PEARL Preparing for Extreme And Rare events in coastaL regions

PRA Participatory flood Risk Assessments

PRONACCH Programa Nacional Contra Contingencias Hidráulicas

PRONACOSE Programa Nacional Contra la Sequía

RALCEA Red Latinoamericana de Centros de Conocimiento en Gestión de Recursos hídricos –

Latin-American Network of Knowledge Centres on Water Resources Management

REDICA Red Centroamericana de Instituciones de Ingenería/ Central America Network of

**Engineering Institutions** 

RHAMA Consultancy Firm from Brasil

RISC-KIT Resilience-Increasing Strategies for Coasts – toolkit



RISE-Project Research and Innovation Staff Exchange ROA WMO Regional Office for Americas

RWB River without Boundaries
RWP Regional Water Partnership

SADC Southern African Development Community

SBP Support Base Partner

SDC Swiss Agency for Development and Cooperation

SDG Sustainable Development Goals SIDS Small Island Developing States

SIWI Stockholm International Water Institute

TSU Technical Support Unit

TUHH Technische Universität Hamburg-Harburg

TUD Technische Universität Dresden

UN-Habitat United Nations Human Settlements Programme UNDP United Nations Development Programme

UNDP-GEF UNDP Global Environment Facility

UNDP-FYROM UNDP in the Former Yugoslav Republic of Macedonia UNECE United Nations Economic Commission for Europe

UNEP United Nations Environment Programme
UNESCO-IHE UNESCO Institute for Water Education

UNESCO-IHP UNESCO Intergovernmental Scientific Cooperative Programme in Hydrology and Water

Resources

UNISDR United Nations Office for Disaster Risk Reduction

UNOSAT United Nations Institute for Training and Research Operational Satellite Applications

Programme

USAID United States Agency for International Development

USAID-RESILIM Resilience in the Limpopo Basin Program

USF University of South Florida VBA Volta Basin Authority

WACDEP GWP Water, Climate and Development Programme WCDRR UN World Conference on Disaster Risk Reduction

WCRP World Climate Research Programme WMO World Meteorological Organization

WMO HWRP WMO Hydrology and Water Resources Programme

WWF World Wildlife Fund

YRCC Yellow River Conservancy Commission



#### 1. INTRODUCTION

The Associated Programme on Flood Management (APFM), a joint initiative of the World Meteorological Organization (WMO) and the Global Water Partnership (GWP), was established in order to promote the concept of Integrated Flood Management (IFM) and to help demonstrate the practical steps for putting the concept into practice. The IFM approach aims at maximizing the net benefits from flood plains and minimizing loss of life due to flooding, and at the same time preserving ecosystems within the overall framework of Integrated Water Resources Management (IWRM)

APFM is currently in its fourth phase. The overall goal of APFM Phase IV is to **mainstream IFM into practice**, while keeping active the production of guidance materials and maintaining the services provided through the HelpDesk.

The five major areas on which APFM will focus during its fourth phase, as per the APFM Strategic Plan 2014-2018 (submaterial I.b), are:

- 1. Involvement in the policy field, providing more guidance to assist in promulgation of the policy.
- 2. Consolidation of the IFM Tools series and other guidance materials, including development of a Primer, acting as an umbrella for the IFM Tool Series.
- 3. Implementation of the APFM Communication Strategy identifying new channels and opportunities of cooperation, and reinforcing the existing APFM network, including Support Based Partners (SBPs), GWP, WMO Commission for Hydrology and selected past trainees and consultants.
- 4. Involvement of SBPs, the GWP network and WMO Technical Commission for Hydrology (CHy) resources to reply to requests received through the HelpDesk.
- 5. Fostering more projects by bringing potential donors to the table.

This Annual Report documents the activities undertaken during the reporting period from 1 August 2015 to 31 July 2016. Most of the output materials are attached as "sub-materials", which will be made available in one hard copy at the Advisory and Management Committee meeting.

Compared to last year's report, this Annual Report will also include a financial report. However, the financial report will cover only the period 1 August 2014 to 31 December 2015. Explanation of this apparent discrepancy between reporting periods is further explained in Chapter 3.

With the intent of considerably reducing the size of the Annual Report, the reader is invited to refer to previous Annual Reports (available on the <u>APFM website</u> archive of reports) for background details about previous publications developed or project proposals.



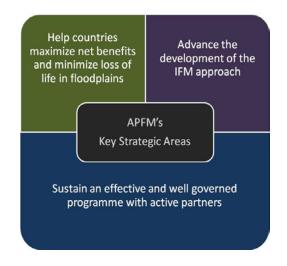


Figure 1 - APFM Key Strategic Areas

During the reporting period, the following changes have been made to the staff of the Technical Support Unit (TSU):

- Ms Charlotte Poussin joined the APFM TSU as an intern from September to December 2015.
- Ms Maud Poissonnier-Lescuras joined the APFM TSU in October 2015 as a Junior Professional Officer sponsored by France for a period of two years.
- Mr Luis Roberto Silva Vara, former intern in the APFM TSU, returned as short-term Project Officer in the Climate and Water Department from October to December 2015.
- Ms Sulagna Mishra joined the APFM TSU as an intern from November 2015 to April 2016.
- Ms Sara Oppenheimer Barrot left the APFM TSU after joining as short-term Project Officer in the APFM TSU from May to December 2015.
- Dr Firas Al Janabi also left the APFM TSU after joining as short-term Project Officer in the APFM TSU from June to December 2015.
- In January 2016, Mr Giacomo Teruggi was named Head of the APFM TSU.
- Ms Verónica Ruiz joined the APFM TSU as an intern for a period of approximately eight months, starting from February 2016.
- Ms Isabel Riboldi's short-term contract as Communication Officer ended on beginning of March 2016.
- Ms Celine Novenario joined the APFM TSU in May 2016 as Associate Outreach Officer of the Climate and Water Department, replacing Ms Isabel Riboldi.
- A new person will join the APFM TSU as Project Officer (P3) from September 2016 (position previously held by Giacomo Teruggi up to May 2015).



#### 2. **ACTIVITIES REPORT 2014-2015**

#### 2.1 EXTERNAL REVIEW OF THE APFM

As per the recommendations of Advisory Committee/Management Committee (AC/MC) in 2015, the TSU has started an external review process on the APFM. The purpose of this review is to look for ways to strengthen the dissemination of APFM results, and to adapt the APFM road map to the needs of the National Meteorological and Hydrological Service (NMHS) community and our society, which is subject to important socio-economic changes (environmental pressure, demanding near real-time access to various data sources, greater speed of communication, e-education, etc.), as well as to ensure APFM future visibility and economic sustainability. Thanks to the financial contribution of United States Agency for International Development (USAID)/US Agency for International Development Office of Foreign Disaster Assistance (OFDA), two external reviewers, Ms Caroline Wittwer and Mr Curt Barrett, are undertaking this review. The reviewers have submitted an inception report outlining the purpose and methodology of the review process, provided as sub-material I (c).

The results of the review are expected to be presented at the next AC/MC meeting in September 2016.

# 2.2 IFM TOOL AND PUBLICATIONS SERIES

#### 2.2.1 STATUS OF PUBLICATIONS AS PER MC 2015 RECOMMENDATIONS

The following table summarizes the status of APFM publications, listed in order of priority indicated at the AC/MC 2015

Publication title	Status		
IFM Policy Series (sub-mat	erials II)		
Primer	Under finalization		
Environmental Aspects of IFM – Case Studies (Policy Series)	Under finalization		
IFM Concept Paper 4 <sup>th</sup> edition	No progress		
Economic Aspects of IFM (Policy Series)	No progress		
IFM Tool Series (sub-materials III)			
Social Impact Assessment and Public Perception of Flood Risk in IFM	Published		
The Role of the Media in IFM	Published		
Effectiveness of Flood Management Measures	Published		
Reservoir Operations and Managed Flows ver. 2.1	Published		



Health and Sanitation Aspects of Flood Management	Published	
Technical Assistance for the Preparation on an Advocacy Strategy (in English and in Spanish)	Published	
Regulations and Technical Standards for Flood Management	Dropped (content outdated)	
Organizing Community Participation for Flood Management ver 2.0	Being edited	
The Role of Land-Use Planning in Flood Management	Under layout	
Crisis Mapping and Crowdsourcing in Flood Management	Being edited	
Project Cycle in Flood Management	No progress	
Flood Management in a Changing Climate	Revision dropped	
Loss Assessment Case Studies	Under development	
Flood Emergency Planning 2nd edition	Under development	
Flood Management in a Multi-hazard Environment	Dropped	
The Contribution of Geospatial Science to Flood Management – CIMA volunteered to take the lead	No progress to report from the TSU	
Rapid Legal Assessment 2nd edition – University of Dundee volunteered to take the lead	No progress to report from the TSU	
Formulating a (transboundary) Basin Flood Management Plan	No progress to report from the TSU	
Governance Issues in Flood Management	Dropped	
Historical Approaches and Coping Strategies for Flood Management	No progress	
Effectiveness of Flood Management Measures - Case Studies (proposal from 2014)	No progress	

# General points requested at AC/MC 2015 regarding the IFM Tools Series:

Activity	Status	
Ensure cross-references between Tools and explicit reference to the HelpDesk	Done in the introduction of latest Tools	
Develop a map of Tools developed for inclusion in the HelpDesk	To be extracted from Primer once finalized	



How to include the external landscape into the IFM Tool series (e.g. the World Wildlife Fund (WWF)/USAID Natural & Nature-based Flood Management: A Green Guide (Flood Green Guide))	Currently providing feedback to WWF on the Flood Green Guide
Deltares institute offered to lead the development of a new Tool on green infrastructures for Flood Management (FM), linking to the above-mentioned WWF/USAID publication – GWP is keen to contribute	No progress to report from the TSU
There is a need to develop a process of incorporating third party publications into APFM	Discussions have been carried out with WWF and World Bank for inclusion in the HelpDesk of materials codeveloped with APFM
Include gender issues in all relevant Tools (particularly Health and Sanitation)	Done through the drafting of a manual on gender
Track process to know how Tools cover actual needs, expectations and what is their impact	No progress to report from the TSU

## 2.2.2 WWF FLOOD GREEN GUIDE

The WWF Flood Green Guide was developed in the course of the year and shared with APFM for comments towards the end of July 2016.

APFM was also requested to provide help for participating in a consortium that would develop a Training Programme based on the guide in Bangkok in August 2016 (see section 2.3.1.3). Promotion of the Guide through the APFM website was also requested by WWF and will be discussed in detail at the meeting in August.

#### 2.3 CAPACITY BUILDING

#### 2.3.1 TRAINING

# 2.3.1.1 Training manual on mainstreaming gender in flood management

Stemming from a concept of the Gender and Water Alliance (GWA), APFM has been developing a training manual on Mainstreaming Gender in Flood Management. A project proposal is currently being prepared to be submitted to potential donors. The objective is to help local stakeholders to integrate gender issues in flood management, supporting them in developing gender-based preparedness, response and recovery activities, and informing them about gender specific roles and actions that can be



taken at the local level to build resilience. The targeted stakeholders will be local policy-makers (riverbasin organizations, disaster management committees, community-based organizations, etc.) and flood-affected local communities. The production of the Training Manual will most probably require two workshops. The first workshop for planning, tasks assignment and drafting a first version of the Manual will involve experts mostly from GWA, WMO and GWP. The second workshop would aim at testing the material on its target audiences. In the framework of this project, APFM attended a meeting at the United Nations Office for Disaster Risk Reduction (UNISDR) Science and Technology Conference in January 2016, exchanging gender-related information with Deltares based on their experience in Bangladesh. APFM also contacted several organizations which shared relevant information (such as case studies) on this issue for the manual, including GWP, International Centre for Integrated Mountain Development (ICIMOD), Deltares, Huairou Commission, etc.

# 2.3.1.2 GWP Course on Integrated Urban Water Management

As mentioned during the previous reporting period, GWP jointly with the University of South Florida (USF) is developing a six-module capacity development course on Integrated Urban Water Management (IUWM), which will provide over the period of several months on-the-job training to key government officials in mainstreaming an integrated approach to urban water management. The course has been tested and is now available. A Module of the Economics and Finance of IUWM is currently being finalized. In-depth discussions have been held with the GWP focal point to provide the APFM's expertise for a module on urban flood management, and ample material on urban flood management has been shared in 2014. Following the recommendation of the AC/MC 2015 meeting, Capacity Development in Sustainable Water Management/UNDP (Cap-Net UNDP) as an APFM Support Base Partner has engaged on the Urban Flood Management training module. APFM remains available to further support the development of the above-mentioned module.

#### 2.3.1.3 Training materials for the WWF Flood Green Guide

As per the recommendations of last AC/MC meeting, synergies have been sought between APFM and WWF on the topic of "green flood management". This translated into APFM providing feedback to the WWF Flood Green Guide. Jointly with WWF, it is planned to develop training materials based on this manual. As mentioned in section 2.2.2, a preliminary workshop to identify other partners to this initiative and prepare a project proposal to attract funds is planned to take place in Bangkok in late August 2016.

# 2.3.1.4 World Bank e-learning course on the role of land-use planning in disaster management

As already reported last year, APFM was contacted by the World Bank to provide input to their elearning course on "Sustainable Urban Land Use Planning", active since 2011, namely regarding the role



of land use planning in flood management. Taking advantage of the revision performed on the IFM Tool on Land-use planning in flood management, APFM provided the World Bank with an annotated presentation of about 60 slides. The World Bank has recently asked for feedback on the complete module materials, which is planned to be finalized by October 2016 in order to be made available online by March 2017.

#### 2.3.1.5 Presentation material

Besides the new presentation on "Land-use planning in flood management" mentioned above, a presentation based on the upcoming IFM Tool on "Crowdsourcing and Crisis Mapping" has been developed jointly with Dr Gabriele Quinti of Centro di Ricerche e Documentazione Febbraio 74 (CERFE). Also, the University of Dundee and the University of Geneva have been working on two presentations, covering the topics of "Rapid Legal Assessment" and "Transboundary Flood Management". The advanced draft of these two presentations should be ready by the next AC/MC meeting. Both Universities raised questions regarding the copyright and use of these presentations, an issue that will need to be discussed at the next AC/MC. The portfolio of IFM Tools-related presentations therefore now includes, in addition to the four presentations mentioned above, the following titles: "IFM: from theory to implementation", "Effectiveness of Flood Management Measures", "Flood Forecasting and Early Warning", "Flood Mapping", "Community Based Flood Management", "Role of the Media in Flood Management", "Urban Flood Management in a Changing Climate" and "Flood Loss Assessment". The Majority of these presentations are also available in Spanish.

#### 2.3.1.6 Finalization of Training Manual on IFM with Cap-Net UNDP

As per the offer of various SBPs at the last AC/MC meeting, the draft Training Manual was shared with Danish Hydraulic Institute (DHI), the Australian Government Bureau of Meteorology (BoM), German Federal Institute of Hydrology (BfG) and Asian Disaster Preparedness Center (ADPC) for their review. Feedback has been collected and further action towards the finalization of this manual will be planned in the next months.

# 2.3.1.7 Training Manuals on Community-Based Flood Management

In the framework of the pilot project on Community-Based Flood Management (CBFM) (see section 2.3.2.12), ADPC has produced two training manuals reflecting the experiences in Thailand and Lao PDR, based on the draft Community-Based Flood Management training manual. The original manuals were in Thai and Lao. APFM sponsored the translation of both manuals for their evaluation. Whereas one of the two translations was acceptable, leading to the decision of printing it as a case study on the application of CBFM in Thailand, the translation from Lao was not deemed satisfactory to evaluate the project outcomes.



Furthermore, TSU has initiated the review of the Manual for Community-Based Flood Management and Operational Guide for Trainer both submitted by Bangladesh Centre for Advanced Studies (BCAS) in 2010 in the framework of the APFM/Cap-Net UNDP collaborative programme. So far, TSU changed the structure of the manual to also include relevant information and examples and a reference for APFM Tools. TSU also started to make comments on the Operational Guide but didn't review yet training materials developed by BCAS. The Manual and Operational Guide need many changes and improvements and will require considerable time and amount of work. The utility of reviewing this Manual (together with the Operational Guide and all training goods) needs to be discussed during the next AC/MC meeting. Indeed, a part of the strategic change of APFM consists in reducing the amount of publications developed by the programme. Moreover, APFM has produced consistent material on the topic of CBFM already: manuals on Community Approaches to Flood Management were developed as an outcome of the three pilot projects in Bangladesh, India and Nepal in Phase I; similar manuals have been developed (as seen above) as an outcome of the recent pilot projects in Thailand and Lao PDR; and a Tool on Organizing Community Participation for Flood Management is being revised in a second edition. Moreover, considering the fact that CBFM needs to take in consideration the particular cultural and socio-economic conditions of the recipient community, it is doubtful that a generalized training manual on CBFM would have any added value to the existing portfolio of available materials on this topic.

#### **2.3.1.8** Paraguay

APFM was invited by the Permanent Representative to facilitate sessions on IFM at the Paraguayan Conference on Water Resources in Asuncion from 5 to 7 August 2015. The conference was preceded on 3 and 4 August by a series of lectures to around 30 students of the National University of Asuncion with backgrounds ranging from civil and environmental engineering to agronomy and economics. A keynote lecture on IFM was also given on the first day of the Conference.

APFM involvement also allowed the identification of the need for developing training modules on IFM targeted to civil protection and local authorities (see section 2.3.1.9).

# 2.3.1.9 Training Modules on IFM for Civil Protection and Local Decision-makers in Latin America

Following a request from Paraguay, training modules are being developed on IFM for local policy-makers and civil protection personnel aimed at increasing resilience of flood-prone communities. The modules will be designed in Spanish for their application in Latin American countries. The modules will be specifically targeted to, and designed for, an audience with little or no technical background. As such, the involvement of an expert in scientific divulgation has been identified as essential to translate scientific concepts into messages understandable by people with non-technical background. Following the interest of the government of Mexico in this initiative, Mr Viñas-Rubio is currently working with the



WMO Mexico Office on this topic. Exchange of experiences are also ongoing with the International Federation of Red Cross on related activities and role playing games to be included in the modules.

The training modules would provide to participants a comprehensive overview of physical, economic, social, environmental and institutional aspects of flood management, enabling them to develop an integrated perception of floods, floodplains and socio-economic development process in Latin American countries. Particular focus will be given to reflect in the modules finding and ideas from the WWF/USAID Flood Green Guide.

# 2.3.1.10 ICID Training Workshop for Young Professionals on Integrated Flood Management

In the framework of the 26th Euro Mediterranean Regional Conference, held back-to-back with the International Commission for Irrigation and Drainage (ICID) 66th International Executive Council, APFM facilitated a Training Workshop on "Integrated Flood Management: from theory to practice" for 13 Young Professionals on 15 October 2015 in Montpellier, France. Prior to the workshop, APFM also attended ICID Working Group meetings on Adaptive Flood Management, Drought and Climate, seeking possible cooperation opportunities on the topic of historical floods and case studies on flood loss assessment. To date, no action has ensued from these meetings, nor follow-up from ICID.

# 2.3.1.11 Development of an action plan on e-learning with TUHH and TUD

A teleconference was held between the TSU and Technische Universität Hamburg-Harburg (TUHH) in early November 2015 to discuss the way forward on e-learning activities of mutual interest. However, due to other commitments no follow up was given to this teleconference.

Similarly, contacts established in the previous reporting period on the same matter, such as Prof. Dr. Christian Bernhofer from Technical University of Dresden (TUD) or Prof. Dusan Zupka from Geneva Centre for Education and Research in Humanitarian Action (CERAH) - University of Geneva, unfortunately did not lead to any concrete action for the time being. Discussions with TUD on this topic are planned to take place towards the end of August 2016.

# 2.3.1.12 Workshop on Flood Risk Management for the Sava River Basin

The International Sava River Basin Commission (ISRBC) organized, with the support of WMO and of the United Nations Educational, Scientific and Cultural Organization (UNESCO) Venice Office, a workshop on Flood Risk Management, held in Zagreb in November 2015. APFM facilitated and chaired various sessions. The proceedings of the workshop are available as submaterial IV(a).



#### 2.3.1.13 Workshop at F2F in Thun, 10 - 11 November 2015

This face to face (F2F) event is organized every year by Helvetas in the framework of the Swiss Non-Governmental Organization Disaster Risk Reduction (DRR) Platform. DRR and water was the main topic for the Platform in 2015 which was entitled "Integrated Flood Management: Acting locally, thinking beyond" and was mainly addressed to practitioners and technical expertise. On 10 November 2015, APFM presented possible solutions and examples for IFM through services available in the IFM HelpDesk as tools and publications.

## 2.3.1.14 Lecture on APFM at the CERG-C/University of Geneva, Geneva, Switzerland

WMO was invited by the Geneva University Specialization certificate for the assessment and management of geological and climate related risk (CERG-C) to participate in a roundtable at Geneva University with other organizations dealing with disaster management (UNISDR, UNESCO, HELVETAS Swiss Inter-cooperation, Swiss Agency for Development and Cooperation).

During this event, WMO presented its activities related to DRR, illustrating key programs such as the Flash Flood Guidance System (FFGS), APFM and Integrated Drought Management Programme (IDMP), and the concepts driving them. It was a good opportunity to network with organizations working in the same area and with CERG-C students who interacted in a dynamic manner with speakers.

# 2.3.1.15 Training Material on Disaster Risk Reduction for the Limpopo basin

GWP Southern Africa is developing a training manual on DDR for national institutions in the 4 riparian countries (South Africa, Zimbabwe, Botswana and Mozambique) in the Limpopo basin. APFM and IDMP have been approached for inputs and have provided material.

#### 2.3.1.16 Argentina

Following the training course in Cuba delivered jointly with Prof. Carlos Paoli and Prof. Marta Paris from University of Santa Fe in Argentina, an invitation has been issued to APFM to attend and provide support facilitating a course on IFM, organized by the University of Santa Fe with support from Spanish Agency for International Development Cooperation (AECID) and the Interamerican Development Bank (IDB). Contrary to what was announced last year, the course will not take place in Argentina but in Montevideo, Uruguay, from 17 to 21 October 2016.

# 2.3.1.17 IAEA Expert Meeting on Flood Hazard - Vienna

WMO was asked to participate in an Expert Meeting held at the International Atomic Energy Agency (IAEA) Headquarters in Vienna, Austria from 13 to 15 July 2016. The objective was to support IAEA in developing training modules on flood hazard assessment and protection of nuclear facilities against



floods. Indeed, experts present in the meeting -WMO (Yuri Simonov and APFM), Institut de radioprotection et de sûreté nucléaire (IRSN) and Istituto Universitario di Studi Superiori di Pavia (IUSS Pavia) - helped in disseminating existing tools available, harmonizing methods and bringing non-nuclear expertise. In particular, APFM shared WMO publications as technical support material for the development of modules.

During the meeting, participants discussed the structure and contents of modules, which resulted in a drafted structure that should be completed and shared by IAEA in the coming months with the experts for their additional input. These modules are expected to be applied through a pilot course in November 2016 (9 sessions designed for 5 days training maximum) tailored to the needs of nuclear facilities in Europe (engineers and technicians from the technical support organizations and from facilities' operating institutions). It was proposed during the meeting that experts present at the meeting could teach some of the modules, in addition to other relevant people, should more assistance be needed.

If WMO wants to be involved in this training, some information must be provided by IAEA to experts present at the meeting regarding the date of the pilot course, its location, the new advanced draft of contents and the expected budget. The possibility of involving WMO (through its CHy experts for example) in assisting for the content of the training modules and their facilitation in the pilot course in November would have to be discussed, as well, in the coming months.

#### 2.3.2 NATIONAL, REGIONAL AND GLOBAL SUPPORT ACTIVITIES

# 2.3.2.1 Project Preparation for the Implementation of IFM on the Volta River Basin (Benin, Burkina Faso, Cote d'Ivoire, Ghana, Mali, and Togo)

The Country Water Partnerships of Benin, Burkina Faso, Cameroon, Cote d'Ivoire, Ghana, Mali, Nigeria and Senegal reached out to APFM for support in 2013. A series of activities were being planned as of 2014 in response to the expressed need to build capacity on the principles of IFM and support the countries in preparing projects that address their needs. The identified objectives were twofold: (a) to develop the capacity of key personnel in applying the concepts of IFM and (b) to prepare projects on IFM in these countries that can attract funding ("bankable projects"). The activities have been grouped into four areas: (1) Flood Management Needs Assessment; (2) IFM Capacity Development; (3) IFM Project Preparation Capacity Development; (4) Project Formulation. A decision was taken to start these activities in the Volta basin riparian countries (Benin, Burkina Faso, Cote d'Ivoire, Ghana, Mali and Togo) involving the Volta Basin Authority (VBA). In the reporting period, the flood management needs assessment has started in all countries and a first draft has been finalized by GWP Benin, GWP Cote d'Ivoire and GWP Burkina Faso.



The activity is mutually reinforcing with the African Ministers' Council on Water (AMCOW) and GWP's Water, Climate and Development Programme (WACDEP) ongoing work on project preparation. The activities are being jointly organized by the Country Water Partnerships of the countries in partnership with the NMHSs, WMO and GWP as part of APFM, as well as with the support of VBA. The African Network of Basin Organizations (ANBO) has been approached, as well as potential financial partners (the Islamic Development Bank and USAID), which however have not yet indicated if they would be ready to support the initiative. The needs assessment in the countries also includes the identification of financial partners. The participation of financial partners will be essential to (i) ensure that the projects are well-designed and attractive for soliciting financial support from potential donors and (ii) to allow them to consider financially supporting this process.

Further details on this initiative are provided in a concept note, and guidelines for the Flood Management Needs Assessment have been drafted. Both documents are provided as sub-materials IV(b) and IV(c). This activity is seen as being central in putting the APFM Strategic Plan 2014-2018 of implementing IFM into action.

#### 2.3.2.2 WMO urban cross-cutting issues

Following recognition by WMO Congress of the APFM heavy involvement in urban flood management, and the consequent adoption by Cg-17 of Resolution 68, APFM has been included in the cross-cutting team on WMO urban activities. So far, APFM has pushed for inclusion of IFM concepts in the work of the cross-cutting team, and has strongly assisted in the production of a brochure to be presented at the next United Nations Conference on Housing and Sustainable Urban Development (HABITAT-III) session in Lima, Peru.

#### 2.3.2.3 PEARL project

During the reporting period, in light of staff shortages, APFM could not attend either of the two Preparing for Extreme And Rare events in coastal regions (PEARL) project meetings, to revise progress and identify shortcomings in the development of the PEARL project. Moreover, very little input was received during the reporting period from PEARL partners for dissemination. At the project meeting in Marbella in January 2016, the PEARL Project Management Board decided to move from WMO to International Water Association (IWA) the responsibility of leading Work Package 7 on "Dissemination of project outputs". As a consequence, actions to transfer the website from WMO to IWA were formalized in May 2016. Update of the PEARL website has been secured by APFM up to the date of the transfer, whereas social media are still updated regularly by the APFM TSU. The PEARL project is not meeting WMO expectations in terms of sharing of know-how and best practices for its wider community due to lack of proper coordination.



#### 2.3.2.4 RA III in Asuncion

During the meeting of the Working Group on Hydrology of Regional Association III (held in Asunción, Paraguay, in October 2015), APFM renewed its availability to support flood management activities in the region. Members of the Working Group were given a presentation about the functionalities of the HelpDesk during the scheduled discussions on flood forecasting activities.

### 2.3.2.5 Advocating for IFM in the Amur Basin River

Upon request of River without Boundaries (RwB), APFM provided feedback to the Chinese-Russian joint report on the Analysis of the Extreme Flood in 2013 in the Amur River. The document with comments to improve the report and include an IFM approach is attached as submaterial IV(d). RwB kindly agreed to include parts of this report in the second edition of the IFM Tool on Land-use planning in Flood Management, and provided case studies and lessons learned.

#### 2.3.2.6 Malawi

APFM was requested to intervene in the development of proposals to meet the needs on flood management identified in the framework of a Global Framework for Climate Services (GFCS) project in Malawi. This was done in coordination with the WMO Office in Nairobi, and the WHO/WMO Office under the GFCS. Due to the temporary shortage of staff in WMO Nairobi Office, this issue is on hold. In the framework of this activity, promising contacts have been established with the Red Cross Red Crescent Climate Centre, which led to additional exchanges regarding the topic of Forecast-based Financing (FbF). APFM might be invited at the next FbF Dialogue platform meeting, organized by the Red Cross every six months.

# 2.3.2.7 Mexico

During the reporting period APFM continued its support to the Programa Nacional Contra la Sequía (PRONACOSE) and Programa Nacional Contra Contingencias Hidráulicas (PRONACCH). In this regard, APFM with the WMO Office in Mexico organized the Workshop "Taller de reflexión sobre avances y perspectivas en torno a la implementación del PRONACOSE y el PRONACCH" ("Workshop on progress and perspectives on the implementation of PRONACOSE and PRONACCH") from 18 to 20 November 2015. The main themes taken up in the workshop were related to flood and drought management, particularly Flood Loss Assessment, Vulnerability Assessment, Flood Forecasting and Risk Mapping. Workshop attendees included officials from Mexico's Comisión Nacional del Agua (CONAGUA), both from the central and regional offices, and of the Mexican Institute of Water Technologies (IMTA). APFM involved for this activity Support Base Partners such as CIMA, CERFE, and Dr Ida Pedroso Herrera (former trainee of the Havana workshop in July 2015) from the Cuban Ministry of Environment. The WMO Office in Mexico also secured the presence of Mr Viñas-Rubio, Consultant from Spain specializing



in scientific divulgation. The workshop was also useful to discuss with Mr Vinas-Rubio about his contribution on the training modules for the civil protection (see section 2.3.1.9).

# 2.3.2.8 Support to the WMO Flood Forecasting Initiative

The Advisory Group of the WMO Flood Forecasting Initiative (FFI-AG) met in Geneva from 1 to 3 December 2015 to discuss its Strategy and Action Plan. As a result of the extensive and thorough discussion, it was agreed at the meeting that a series of proposed actions to adopt the concept of Endto-end (E2E) flood forecasting and early warning systems (FFEWSs) would be implemented. Among these actions, the FFI-AG expressed willingness to work with APFM on the provision of guidance and training material on E2E FFEWSs through the IFM HelpDesk, and other topics such as preparation of guidelines on how to formulate numerical weather forecast information for use in flood forecasting, consistent with the FFI Work Plan of 2016-2019. The FFI-AG therefore requested the APFM TSU to undertake an inventory of existing guidance material and/or training material and/or expertise on flood forecasting and early warning through its Support Base already available through the HelpDesk; and to design an appropriate interface to offer assistance (Get Help and Help Yourself) in the field of E2E FFEWS. These requests were also endorsed by the Advisory Working Group of the Commission for Hydrology at its meeting in February 2016. The inclusion of E2E FFEWSs as a topic available through the IFM HelpDesk constitutes an enormous opportunity for APFM to act as the entry point for users to know-how and technical resources available from different WMO Programmes (such as the aforementioned FFI, but also the Global Hydrometry Service Facility (GHSF)), as well as from the GWP and SBP networks.

# 2.3.2.9 Regional Workshop on South-South Cooperation in Flood Management in Foshan, Guangdong, China

APFM support was requested for the Regional Workshop on South-South Cooperation in Flood Management with the GWP Regional Water Partnerships in China, South Asia, Southeast Asia, and Central Asia and Caucasus, which was held from 14 to 16 December 2015 in Foshan, Guangdong, China. APFM provided input to the thematic development of the workshop, and an APFM representative from WMO introduced APFM and examples of IFM approaches at the workshop. Cooperation focusing on FFGS and community-based flood management are being explored by the Regional Water Partnerships as a follow-up to the workshop.

#### 2.3.2.10 UNISDR "words into action"

In the framework of the UNISDR initiative of the post-Sendai Framework "Words into Action", APFM has been invited to join the Sendai Framework Working Group on Ecosystems. After an initial round of comments to the concept note behind this initiative and a few teleconferences in February 2016, no follow up was received from UNISDR on this issue.



# 2.3.2.11 Instrument for Pre-Accession Assistance (IPA) project proposal on flood resilience for the Western Balkans and Turkey

Upon the request of the Italian Department of Civil Protection and CIMA, in July 2014, APFM actively participated in the final drafting process leading to the project proposal on flood resilience for the Western Balkans and Turkey to be presented to the European Commission (EC) in the framework of a call for proposals for an Instrument for Pre-Accession Assistance (IPA). A letter of support signed by the WMO Secretary-General was sent to the Consortium, stating that, should the proposal (named IPA FLOODS) be retained by EC, WMO through APFM would have been available to provide assistance in the implementation of IPA FLOODS activities upon request.

IPA FLOODS was granted funding by EC and started on 1 January 2015. In the framework of IPA FLOODS, a regional workshop on the European Union Floods Directive (EUFD) was held on 8 March in Sarajevo. The aim of the workshop was to present the work performed under IPA FLOODS towards the production of guidelines and good practices for the implementation of the EUFD. The outcomes of the regional workshop would have also been functional to the discussion in the second IPA FLOODS Steering group meeting, held the following day 9 March, and the finalization of the workplan for 2016.

APFM was requested to attend the workshop in order to identify possible synergies and training opportunities to be implemented in the framework of IPA FLOODS.

## 2.3.2.12 CBFM in Thailand and Lao (with ADPC)

After 30 months of implementation, and a 3-month no-cost extension, the project on CBFM has been completed. The Asian Disaster Preparedness Center (ADPC) submitted its final project report, as well as two manuals (in Thai and Lao) covering the experiences matured in the framework of the project. A publication called "voices from the field" was also produced to collect feedback from the project beneficiaries. All these reports are listed as sub-materials IV(e) to IV (h).

# 2.3.2.13 EC Working Group on Disaster Risk Reduction and support to WMO DRR initiatives

APFM was invited to provide input to the agenda of the first session of the Executive Council (EC) Working Group on Disaster Risk Reduction. An information note was provided to complement the Working Group agenda (provided as submaterial IV (i)), and a presentation on APFM and IFM was given to the meeting on 5 April 2016. APFM also provided presentation material for the Meeting of Expert Advisory Group on Multi-Hazard Early Warning Systems held from 19 to 21 April 2016. Due to other commitments, no one from the TSU could participate into this second meeting.



#### 2.3.2.14 Support to climate change adaptation in the Congo River Basin

APFM facilitated discussions between United Nations Economic Commission for Europe (UNECE) and WMO Resource Mobilization Office regarding the preparation of a proposal to be submitted to the Adaptation Fund for the strengthening of the observation network in the Congo River Basin. Synergies are being sought between this climate change adaptation initiative and the Congo-Hydrological Cycle Observing System (HYCOS) project.

## 2.3.2.15 Transboundary Flood Management issues in the Dniester – Kiev

APFM keeps liaising with UNECE to identify possible sources of funding for the Dniestr project. APFM was also invited to the 12th meeting of the Working Group on Flood Management and Climate Change Adaptation in Kiev, to further discuss with local stakeholders. Unfortunately, APFM participation had to be cancelled at the last minute. An overview prepared by UNECE on the status of activities in the Dniestr basin is provided as submaterial IV(j).

#### 2.3.2.16 Global Framework for Climate Services

In line with the WMO CHy recommendation to continue promoting APFM to increase its field effectiveness and to attract extra budgetary resources for its activities, discussions are being held to have the IFM and the IDMP's Integrated Drought Management HelpDesk (latter is under development) considered a Global Framework for Climate Services (GFCS) climate user interface. This would serve the dual purpose of assisting in making some pragmatic modifications to broaden the utility of the GFCS water user interface, possibly adding some new tools or functions to make it more complete in its treatment of water resources-related climate adaptation, while at the same time attracting extra budgetary resources to implement APFM and IDMP activities, particularly in terms of project development. This proposal has been included in the GFCS Operational and Resource Plan (ORP). The APFM and IDMP TSU took part in the ORP Task Team meeting on 18 and 19 April 2016 and followed up on ensuring the proposal's inclusion.

#### 2.3.2.17 Support and linkages with the WMO Tropical Cyclones Programme

APFM was requested to provide a presentation about its activities to the Panel on Tropical Cyclones at its session in New Delhi from 2 to 6 May 2016. This was done remotely via WebEx.

# 2.3.2.18 Request for feedback on the Limpopo Disaster Preparedness Action Plan 2016-2030

GWP Southern Africa is supporting the Limpopo Watercourse Commission (LIMCOM) in the development of a Disaster Preparedness Action Plan, which focuses on building resilience to floods and droughts. APFM and IDMP have provided inputs to this Action Plan. Based on this support the cooperation on providing training material described under section 2.3.1.5 is being developed.



#### 2.3.2.19 CBFM in Iowa, USA

APFM was invited by Cedar River Basin Coalition to attend a Multi-Hazard Tournament (MHT) in July 2016. The MHT is a table-top or simulation exercise designed to aid decision-making by playing out potential strategies to reduce drought and flood risk. It might be a useful tool, exported in other socio-economic realities, to plan for community-based flood management strategies. Unfortunately, due to conflicting agendas, APFM could not attend the event but will be kept in the loop regarding the MHT outcomes and future developments.

#### 2.4 OUTREACH

#### 2.4.1 GIS MAPPING

In the framework of the proposal for the WMO Geographic Information System (GIS) Platform Deployment, APFM participated in several meetings from April 2016 which provided more information on the objectives, functional areas and applicability of the platform, as well as how it could be useful for APFM. At the present time, APFM could use it for mapping and showcasing its activities (training, workshops, case studies, etc.) and localization of its SBP, but possibilities can be investigated further.

#### 2.4.2 NEWSLETTER

Since the AC/MC meetings in September 2015, two issues of the Flood Management News have been published (No. 37 in October 2015 and No. 38 in February 2016, available as sub-material V(a) ). Newsletter No. 39, planned to be finalized in July 2016, had to be postponed to August. The newsletters were disseminated through the usual channels, i.e. e-mail (the mailing list now reaching 1700 subscribers), website and social media.

#### 2.4.3 INTERNATIONAL EVENTS

Since the last AC/MC meetings, APFM was involved in the following international events:

EVENT	DATE	LOCATION	APFM INVOLVEMENT	PARTNERS INVOLVED
Paraguayan	3-7 Aug 2015	Asunción,	Presentation on Integrated	WMO, Dirección
Congress on Water		Paraguay	Flood Management Concept	Nacional de Aeronautica
Resources				Civil (DINAC)



World Water Week	23-28 Aug 2015	Stockholm, Sweden	Flyers Children booklets Presentation on "principles, objectives and implementation of Integrated Flood Management" in Sweden, France and other cases	WMO, GWP, Stockholm International Water Institute (SIWI)
WMO Regional Association III Working Group on Hydrology and Water Resources	5-9 Oct 2015	Asunción, Paraguay		WMO, NMHS of RA III
Panel on Creating effective partnerships for water-related DRR at second UN Special Thematic Session on Water and Disaster	18 Nov 2015	UN Headquarter s, New York, USA	Support in development of panel and inclusion of experiences from APFM and IDMP	GWP
Stockholm Regional Days	22-24 Nov 2015	Stockholm, Sweden	Description of the successful cooperation between WMO, GWP, the GFCS, the APFM and IDMP; promote the use of the APFM and IDMP activities	WMO, GWP
"The Sustainable Development Goals – What can Swiss partners contribute?"	1 Dec 2015	Zurich, Switzerland	Swiss Federal Institute of Aquatic Science and Technology (EAWAG) & Swiss Water Partnership event on SDG 6 - Explored cooperation opportunities with EAWAG	WMO



Regional Workshop on South-South Cooperation	14-16 Dec 2015	Guangdong, China	Input to thematic development. Keynote speech on APFM and IFM applications, and presentation on "The Global Flash Flood Guidance System"	WMO, GWP
Climate Services and Food Security Dialogue	18-19 Jan 2016	Rome, Italy	Input to discussion and presentation of APFM	WFP, WMO and GWP
UNISDR Scientific and Technical Conference	27-29 Jan 2016	Geneva, Switzerland	Discussions held to integrate FFGS in the DEWETRA platform; coordination with UNISDR on the post-Sendai agenda	CIMA, UNISDR
World Meteorological Day - Building Climate- Smart Cities Roundtable	23 Mar 2016	Geneva, Switzerland	Discussion on proactive solutions (looking ahead 10-20 years) in light of urban flood challenges	WMO, UNECE, WHO, United Nations Human Settlements Programme (UN-Habitat)
UNECE	6-7 Apr 2016	Geneva, Switzerland	Renewed availability to support UNECE and members of the Water Convention in flood management	UNECE, RWB
"One to Few" roundtable	4 May 2016	Geneva, Switzerland	Advice University of Geneva's students on environment and sustainable development's employments	WMO, Global Footprint Network, International Union for Conservation of Nature (IUCN), United Nations Environment Programme (UNEP)
Citizen Observatories for Water Management	7-10 Jun 2016	Venice, Italy	APFM-CERFE presentation on Giving Value to Popular for Monitoring Natural Hazards (based on the Abstract mentioned in section 2.4.3.1)	UNESCO Institute for Water Education (UNESCO-IHE), Sheffield University, Ecole Polytechnique Federale de Lausanne (EPFL), etc.



Course on Hydrological Forecasting	6-10 Jun 2016	Santa Cruz, Bolivia	Presentation on IFM, APFM, its website and its tools, publications and the HelpDesk	WMO Mexico, Ibero- American Network for the monitoring and forecasting of hydrometeorological phenomena (PROHIMET), AECID, and Agencia Estatal de Meteorología (AEMET)
River Flow 2016	12-16 Jul 2016	St Louis, Missouri, USA	Presentation on the role of research and science in WMO flood management activities	IAHR, Polytechnic of Milan (PoliMi)

#### 2.4.3 ARTICLES AND OTHER OUTREACH MATERIALS

#### 2.4.3.1 Venice

In the framework of the conference organized by the Alto Adriatico Water Authority from 7 to 9 June 2016 in Venice on "Citizen Observatories for Flood Management", Gabriele Quinti (CERFE) drafted as the main author the paper "Giving value to popular knowledge for monitoring natural hazards", that was submitted to the organizers of the Conference. The aim of this paper was to explore the social dimensions of Citizens' Observatories (CO) in the specific case of flood as a tool for giving value to popular knowledge in the monitoring process of natural hazards, and address the benefits and challenges related to CO.

APFM reviewed the paper before its submission. Upon its acceptance, the paper was presented by APFM on 8 June during the conference. The article is available as submaterial V(b).

# 2.4.3.2 Other articles and outreach opportunities

An article on "the role of science and research in WMO flood management activities", mentioning APFM widely, has been prepared to be presented at the River Flow 2016 conference in St Louis. The abstract has been included in the conference proceedings. The full article is available as submaterial V(c).

An offer to present in the Geospatial Forum in Rotterdam at the end of May 2016 had to be declined because of other commitments. The offer was turned over to the United Nations Institute for Training and Research Operational Satellite Applications Programme (UNOSAT).

Preliminary discussions have started with SIWI to join the Source to Sea Platform, but due to other commitments no proper follow up could be granted to this initiative.



#### 2.4.4 WEB PRESENCE

#### 2.4.4.1 APFM Website

An overall increase in the number of visits to the APFM website reflects the success of the APFM Communication Strategy implementation. Over the reporting period 62,244 sessions have been recorded; compared to the 46,936 registered in the previous period, this shows an increase of 32.6 %.

In terms of number of users 52,507 were registered over the reporting period, showing an increase of 31.7 % (39,877 users were reported during the previous period).

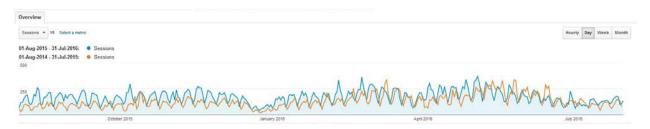


Figure 2 - APFM website visits for the period 2014-2015 (in orange) and for the period 2015-2016 (in blue)

Knowing the exact number of IFM Tools downloads remains technically unfeasible. However, this year a tentative number of 2,258 downloads can be provided, based on the assumption that sessions leading to the download page of each IFM Tool have led to the download of the Tool. The detailed list of downloaded tools are provided in submaterial V(d).

In terms of geographical distribution of visits, Figure 3 shows the countries from which majority of the sessions came from.



Figure 3 – geographical distribution of sessions



#### 2.4.4.2 APFM Social Networks Profiles

The APFM Facebook and Twitter profiles continue to be successful as LinkedIn, although the latter has only increased by 20% in number of followers. As shown in the table and Figure 4 below, the first two profiles are showing the best results.

SOCIAL NETWORK	FOLLOWERS	TREND from 1 August 2014
Facebook	1345	+56% (+481)
Twitter	225	+48% (+73)
LinkedIn	392	+18% (+60)

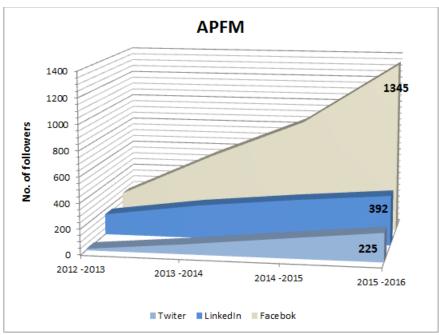


Figure 4 - Number of APFM followers on social networks

# 2.4.4.3 PEARL Social Networks Profiles

The PEARL project's website was transferred to IWA in May 2016, as per the decision of the PEARL Project Management Board (see section 2.3.2.3). However, APFM continues to manage the project's profiles on Facebook, Twitter and LinkedIn. These, as well, have recorded an increasing number of subscribers as shown on Figure 5.

SOCIAL NETWORK	FOLLOWERS	TREND from 1 August 2014
Facebook	214	+48% (+69)
Twitter	86	+43% (+26)
LinkedIn	73	+115% (+39)



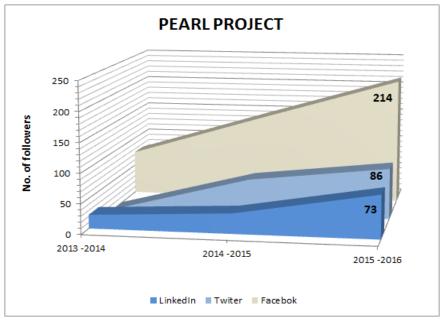


Figure 5 – Number of PEARL followers on social networks

## 2.4.5 CATALOGUE OF SERVICES AVAILABLE THROUGH THE IFM HELPDESK

The development of a catalogue of the services and resources that APFM is able to provide through its SBPs was started in the last months of 2014. The TSU is gradually approaching all Support Base Partners to prepare a comprehensive list of the workshops, training courses, tools and resources that they can contribute to the HelpDesk, including details about objectives, target audience, duration, costs, proposed agenda, among others. Once finalized, the Catalogue will be available on the APFM website. Some SBPs were approached for this purpose, but due to discontinuities in TSU staffing, the process is not yet completed.

# 2.5 IFM HELP DESK

# 2.5.1 INSTITUTIONAL ARRANGEMENTS AND MECHANISM FOR THE IFM HELPDESK

Four new Support Base Partners (SBPs) have joined the IFM Help Desk during the reporting period. They are the Ibero-American Network for the monitoring and forecasting of hydrometeorological phenomena (PROHIMET); RwB; the Santa Fe University in Argentina (FICH); and the United Nations University Institute for Integrated Management of Material Fluxes and of Resources (UNU-FLORES), who joined APFM in April 2016 to collaborate supporting the efforts of advanced integrated flood management and expects an enhancement of the APFM TSU.



Preliminary discussions are underway regarding the possible inclusion in the SBP network of other institutions such as PoliMi, Alterra-Wageningen University, TU-Dresden and the Flood Hazard Research Centre. Other preliminary discussions announced in the previous reporting period were not realized: CERAH, ICID and Roorkee University (India).

#### 2.5.2 OPERATIONAL STATUS OF THE IFM HELPDESK

Thirty-four requests were received through the HelpDesk during the reporting period. As decided at the last AC/MC meeting, HelpDesk requests will now be counted independently from the channel through which they reached the TSU. Therefore, the 34 requests include requests received through the HelpDesk website, directly by TSU members, or through other programmes of GWP or WMO. Of these 34 requests, 26 were completed, 7 are ongoing and one was withdrawn by the requesting party. A detailed analysis and description of the requests is provided in Annex I.

# 3. FINANCIAL REPORT

The APFM Management Committee decided in its 2014 meeting to have the financial reporting period moved to the calendar year, in order to better meet WMO and GWP modalities of financial reporting. At the last AC/MC meeting in September 2015, therefore, no financial report was presented, as the period 1 August 2014 - 31 December 2015 was not yet over. Instead, a special virtual session of the Management Committee was to be organized in the first quarter of 2016.

Unfortunately this virtual meeting has not been held. The finalization of the financial report took longer than expected due to work overload but, even more relevant, the impossibility for WMO Finance Department to close the financial period before the end of the first quarter of 2016. Whereas the first reason is expected to change in the near future with the appointment of a Project Officer in the TSU, the limiting factor posed by the WMO Finance Department should be kept in due consideration.

To avoid organizing the virtual session of the Management Committee during Summer, a few months before the following AC/MC meeting, with the agreement of the AC/MC Chairman it was decided to include the financial report for the previous calendar year period in the APFM Annual Report. In other words, this year the Annual Report (covering activities carried on during the period 1 August 2015 to 31 July 2016) includes the previous financial report (covering the period 1 August 2014 - 31 December 2015).



The new proposed frequency of reporting is summarized in the following table:

Year of	Period covered		
AC/MC meeting	by Annual Report (available yearly in August)	by Financial Report (available yearly in May)	by Proposed Budget (available yearly in September)
2016	1/8/2015 – 31/7/2016	1/8/2014 – 31/12/2015	1/1/2016-31/12/2016
			1/1/2017-31/12/2017
2017	1/8/2016 – 31/7/2017	1/1/2016 – 31/12/2016	1/1/2018-31/12/2018
2018	1/8/2017 – 31/7/2018	1/1/2017 – 31/12/2017	1/1/2019-31/12/2019

As per the future proposed budget (i.e. for the period 1 January 2017 - 31 December 2017), it will be discussed at the next Management Committee meeting, reflecting the AC/MC decisions on the work plan for 2016-2017, based on estimates of the APFM Trust Fund availability at 31 December 2016. Exceptionally, this year's discussion will cover two years of proposed budget: the aforementioned 2017 budget, plus a "partially implemented" one for 2016.

# 3.1 FINANCIAL SUPPORT AND PERFORMANCE FROM 1 AUGUST 2014 TO 31 DECEMBER 2015

The financial statement of the APFM Trust Fund with income and expenditure from August 2014 to December 2015 is presented in Figure 6 below.



## WMO OMM

WENTER CLAMIT WITH



World Meteorological Organization
Organization météorologique mondiale
Organización Meteorológica Mundial
Всеьоврива метеорологическая организация
النظمة العالمة للأرصاد الجرية المحلة المحل

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7 bis, avenue de la Paix – Case postale 2300
CH 1211 Genève 2 – Suisse
Tel: +41 (0):22 730 81 81
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# Trust Fund for Associated Programme for Flood Management Trust Fund no. 421331 Statement of Income and Expenditure For the period 1 August 2014 to 31 December 2015

(Amounts in Swiss Francs)

1.	Bala	ance as at 1 August 2014, excluding obligations	(a)			491,096
2.	Cont	tributions				100,000
3.	Tota	l funds available			27	591,096
4.	Expe	enditure				
	4.1	Direct expenditure			197,154	
	4.2	Indirect expenditure				
		4.2.1 Support costs		16,350		
		4.2.2 Loss in currency exchange		3,460		
		4.2.3 Bank Charges	_	318		
		4.2.4 Total Indirect expenditure		79-	20,128	
	4.3	Total Expenditure			24	217,282
5.	Bala	nce as at 31 December 2015				373,814
6.	Less	outstanding obligations including support costs				70,803
7.	Bala	ance as at 31 December 2015, net of obligations				303,011

(a) Effective 1 January 2010, the World Meteorological Organization implemented International Public Sector Accounting Standards (IPSAS), which requires, inter alia, that pledged income be recognized as income. Accordingly, contributions amounting to CHF 18,156 were pledged and recognized as income in 2014, but remain unpaid as of the date of signature of this statement. Therefore the opening and closing balances include this amount which is not available for commitments.

Certified correct:

Luckson Newira Chief, Finance Division 9 June 2016

Figure 6 - Financial statement of the APFM Trust Fund (August 2014-December 2015)



## 3.1.1 FINANCIAL SUPPORT

During the reporting period 2014-15, Switzerland pledged 100,000 CHF. These funds were transferred to WMO on 3 December 2015. The following week, on 11 December 2015, an amount of 40,425.25 CHF (corresponding to EUR 37,089.19) were received from UNESCO-IHE as a second instalment for the PEARL Project. It has to be noted that this amount does not appear in the financial statement as it was already accounted for at the time of the pledge for the totality of the project (i.e. 127,171 CHF) in early 2014. In this regard, an additional EUR 16,745.31 has been pledged as a final instalment of APFM contribution to PEARL and will be transferred by EC through UNESCO-IHE at the end of the project (late 2017).

France and Germany contributed to APFM activities through in-kind support, as did WMO and GWP. No interest matured over the reporting period (being in fact a negative interest, it was accounted as expenditure).

For August 2014 through December 2015, the total income was 100,000 CHF, the carry-over from previous years was 491,096 CHF, and the expenditures were 217,282 CHF. This provides an ending balance at 31 December 2015 of 373,814 CHF. Within this amount, EUR 16,745.31 from UNESCO-IHE will be available at the end of the PEARL project in late 2017 and 70,803 CHF are already obligated, therefore bringing the net balance as of 31 December 2015 to CHF 303,011.

The difference between the opening balance as of 1 August 2014 (491,096 CHF) and the ending balance as of 31 July 2014 reported in the Annual Report 2013-2014 (328,724 CHF) is due to the fact that the WMO financial period was not yet closed at the date of the previous report. The statement above (Figure 6) should be considered as final, as the WMO financial period 2014-2015 has since been closed.

It has to be noted that the agreement between WMO and the Swiss Federal Office for the Environment (FOEN) on a long-term partnership to support countries in IFM will expire on 31 December 2016. After this date, core funding for APFM will not be secured. The TSU has therefore been exploring possibilities of additional in-kind contributions from Switzerland (e.g. secondment of staff to the TSU, provision of experts for ad-hoc activities, etc.) and other potential donors.

## 3.1.2 FINANCIAL PERFORMANCE

Following the withdrawal of Japan as a donor, the main significant income for the APFM Trust Fund remains the contribution from the Swiss FOEN, which committed 100,000 CHF for each of the years 2015 and 2016. However, it has to be noted that from the end of 2016 FOEN will not be able to continue with this contribution.



To further decrease expenditures, the position of APFM Secretary was closed in April 2015. The position was being funded from the APFM Trust Fund.

Expenditures for the reporting period from 1 August 2014 to 31 December 2015 are presented in Annex IV. In total, an expenditure of 217,282 CHF has been incurred over the income of 100,000 CHF (representing FOEN contribution). The difference (117,282 CHF) between income and expenditure was supplemented by the balance of APFM fund carried over from the last period.

The financial statement for the period 1 August 2014 to 31 December 2015 (Figure 6) prepared by the WMO Finance Division shows that of the total expenditures (217,282 CHF) 197,154 CHF were direct expenditures, whereas 20,128 CHF were indirect expenditures, such as support costs (7% of direct expenditures), bank charges (including interests) and loss in currency exchange.

The pie charts in Figures 7 and 8 represent the distribution of expenditure per activity from the APFM Trust Fund, and the amount of time allocated by the TSU for each activity.

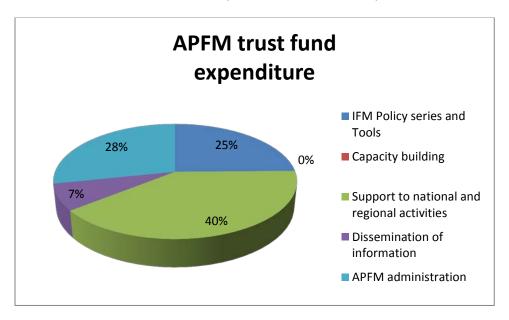


Figure 7 - APFM Trust Fund expenditure 1 August 2014 to 31 December 2015



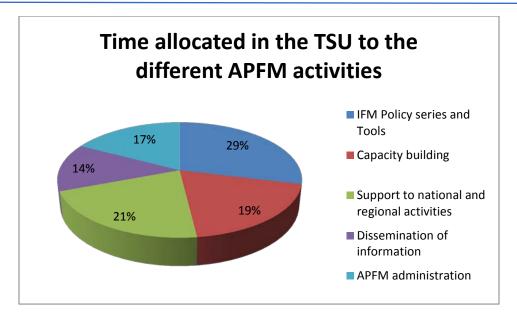


Figure 8 - Time allocation during August 2014 - December 2015 to APFM activities by category

## 3.2 CONTRIBUTIONS FROM WMO, GWP AND OTHER PARTNERS

During the reporting period, APFM activities were supported from the APFM Trust Fund, GWP regular budget, WMO regular budget and other trust funds. WMO funded the costs of two TSU staff members, a part time Senior Secretary, and four short-term staff members. The Government of Germany funded one Junior Professional Officer (up to December 2014), the Ministry of Foreign Affairs of France funded a Junior Professional Officer from October 2015, and GWP continued the secondment of a Senior Programme Officer. Missions related to the support of PRONACCH (in November 2014 and November 2015), various training courses (in Asunción, Havana, Montpellier, Zagreb and Bern), case studies in the policy series and revision of one tool were supported directly from the WMO regular budget, as well as costs related to attending various conferences (for a total of 118,700 CHF). GWP also contributed directly (i.e expenditures reported as APFM in the GWP Annual Report) and indirectly (expenditures reported under another category in the GWP Annual Report, such as IDMP or WACDEP) to APFM, for a total of discretionary costs of 135,064 CHF.

Staff in the Hydrology and Water Resources Branch, Climate and Water Department, WMO also support APFM-related activities, such as training and pilot projects.

The table below summarizes the contributions to APFM (both in-kind and financial) of WMO, GWP and other Partners (1 August 2014 – 31 December 2015)



Period	Staff/Activity	Source of Funds	Contribution
In-kind Contri	bution		
1 Aug 2014	Head of Technical Support Unit	WMO Climate and	8.5 Person-Month (PM)
31 Dec 2015	(TSU) (50%)	Water Department (CLW)	=137,088 CHF
1 Aug 2014 31 Dec 2015	TSU Staff (70%)	WMO CLW	11.9 PM =136,148 CHF (post upgraded after nine months)
1 Aug 2014 31 Dec 2014	TSU Junior Professional Officer (JPO) (shared 50% between Germany and WMO)	Germany, WMO CLW	2.5 PM = 24,225 CHF + 2.5 MM paid by WMO = 24,225 CHF
1 Oct 2015 31 Dec 2015	TSU JPO (paid 100% through France Ministry of Foreign Affairs (MFA) JPO programme)	France MFA	3 PM = 21,399 CHF
1 June 2015 31 Dec 2015	TSU Short-term (70%)	WMO CLW	5 PM = 48,450 CHF
1 May 2015 31 Dec 2015	TSU Short-term	WMO CLW	8 PM = 58,488 CHF
1 Oct 2015 31 Dec 2015	TSU Short-term	WMO CLW	3 PM = 21,399 CHF
1 Aug 2014 31 Dec 2015	TSU Outreach Officer (30 %)	WMO CLW	4.2 PM = 40,698 CHF
1 May 2015 31 Dec 2015	TSU Senior Secretary (30%)	WMO CLW	2.1 PM = 16,065 CHF
1 Aug 2014 31 Dec 2015	TSU Staff (30%) secondment from GWP	GWP	5.1 PM = 38,522 CHF
Financial Cont	tribution		
September 2014	Support cost to AC/MC meeting	GWP*	6,968 CHF
Nov 2015	Production of Case studies and update of Tools	WMO CLW	20,000 CHF
Aug 2014 – Nov 2015	IFM Training workshops	WMO CLW	39,458 CHF
Aug 2014 – Nov 2015	Support to PRONACCH and RA III	WMO DRA	50,393 CHF
Aug 2014 –	Support to Country Water	GWP*	105,259 CHF



Nov 2015	Partnerships and Regional Water Partnerships in IFM		
Mar 2015	Third World Conference on Disaster Risk Reduction (Sendai)	WMO CLW	8,709 CHF
Mar 2015 – Aug 2015	Third World Conference on Disaster Risk Reduction (Sendai) and Stockholm World Water Week	GWP*	13,537 CHF
September 2015	Support cost to AC/MC meeting and programme development	GWP*	9,300 CHF

The summarized contributions by Partner are as follows:

	Staff costs	Discretionary costs	Total contribution by Partner
WMO	483,095 CHF	118,700	601,795 CHF
GWP*	38,522 CHF	135,064 CHF	173,586 CHF
German Meteorological Office (DWD)	24,225 CHF	-	24,225 CHF
MFA France	21,933 CHF	-	21,933 CHF

<sup>\*</sup> Includes GWP direct and indirect expenditures related to the APFM.

The pie charts in Figures 9 and 10 represent the distribution of expenditure by major activity area for WMO Regular Budget and that of the GWP:



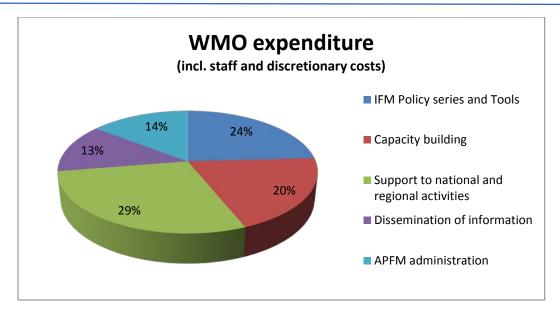


Figure 9 - WMO expenditure

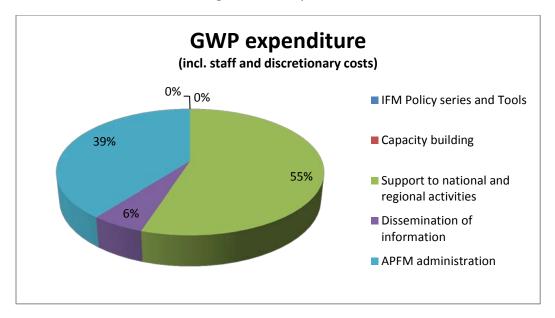


Figure 10 - GWP expenditure

Considering the three different sources (APFM, WMO and GWP), overall distribution of expenditure is summarized in Figures 11 and 12:



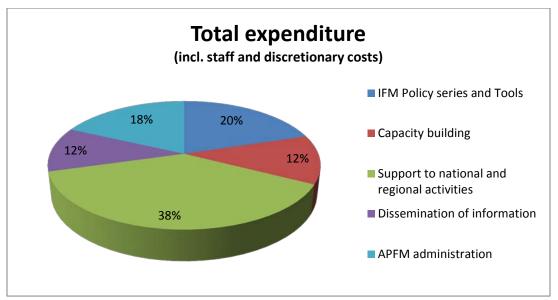


Figure 11 - Total expenditure

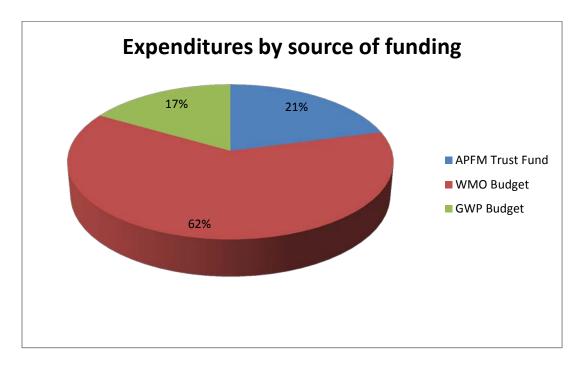


Figure 12 - Expenditure by source of funds (WMO budget includes contributions by Germany and France)



When workshops and conferences are organized, APFM often asks for the participation of partners (donors, SBPs, etc.) as speakers or resource persons. Such contributions from partners for the period 1 August 2014 to 31 December 2015 are listed in the table below:

Month	Activity	Partners	Contribution from Partners
September	AC/MC meetings in	ADPC	1 person
2014	Geneva (2 days)	Australia BoM	1 persons
		Cap-Net UNDP	1 person
		CERFE	1 person
		Czech	1 person
		Hydrometeorological	
		Institute (CHMU)	
		DHI	1 person
		DWD Germany	1 person
		Euroaquae	1 person
		FOEN	2 persons
		International	1 person
		Association of	
		Hydrological	
		Sciences (IAHS)	
		International Centre	1 person
		for Water Hazard	
		(ICHARM)	
		Italy MFA	1 person
		Korea Water	1 person
		Resources	
		Association (KWRA)	
		SIWI	1 person
		UNESCO-IHE	1 person
		UNOSAT	3 persons
		UNECE	1 person
		USAID	1 person
		Zoï Env.	1 person
Since	Community-Based	ADPC	5+ person days (implementation of
March	Flood Management in		pilot project)
2013 to	Thailand		
March			
2016			
November	PRONACCH and	CERFE	6+ person days (implementation of
2014	PRONACOSE		methodology)



December 2014	Roundtable in China	Euroaquae	5 person days
March	Sendai Conference	FOEN	5+ person days (organization and
2015			facilitation of session)
September	ACMC meetings in	ADPC	1 person
2015	Geneva (2 days)	Australia BoM	1 person
		BfG	1 person
		CapNet	1 person
		CEH	1 person
		CERFE	1 person
		CHMU	1 person
		CIMA	1 person
		CONAGUA	1 person
		Deltares	1 person
		DHI	1 person
		University of Dundee	1 person
		Euroaquae	1 person
		FOEN	1 person
		ICHARM	1 person
		KWRA	1 person
		TUHH	1 person
		UNECE	1 person
		USAID	1 person
		Zoï Env.	1 person
November	Workshop for	CERFE	6+ person days (facilitation of
2015	PRONACCH	CIMA	workshop)
November	e-learning plan	TUHH	1 person day (preparation for
2015			teleconference)
Since	Tool on Crowdsourcing	CERFE	6+ person days (preparation of Tool)
November	and crisis mapping	UNOSAT	5+ person days (preparation of Tool)
2015			
Since	Revision of the IFM	DHI	5+ person days (revising the manual)
November	training manual	Australia BoM	
2015		BfG	
		ADPC	
December	Development of the	Deltares	10+ person days (preparation of
2015	Primer		publication)



Besides WMO and GWP time, already reported at the beginning of this section, the following table summarizes the contribution in person days from SBPs and other financial partners

Summary	Contribution from Partners (in
SBPs	person days)
ADPC	14+
Australia BoM	9+
BfG	7+
CapNet	4
CEH	2
CERFE	21+
СНМИ	4
CIMA	8+
CONAGUA	2
Deltares	12+
DHI	9+
Dundee Univ.	2
Euroaquae	9
IAHS	2
ICHARM	4
KWRA	4
SIWI	2
TUHH	3
UNECE	4
UNESCO-IHE	2
UNOSAT	11+
Zoï EN	4
TOTAL SBPs	139+

Summary Donors	Contribution from Donors (Person Days)
FOEN, Switzerland	10+
DWD, Germany	2
MFA, Italy	2
USAID	4
TOTAL	18+

Note that all contributions of SBPs in the framework of the PEARL project, the Havana workshop, the virtual pilot course on IWRM as Climate Change Adaption, contribution to the WWF Flood Green Guide, the IPA project proposal for the Balkans, etc. have not been included, as in these cases, the APFM is contributing rather than asking for a contribution. It is noteworthy that, the WWF will review and send comments related to linkages between the Primer and the WWF/USAID Flood Green Guide (FGG).

The cumulative maximum amount of available days volunteered by SBPs as of 31 December is 226, therefore a usage of 61% of this resource is to be reported.



# 4. ACTIVITY PLAN FOR THE PERIOD 2016/2017

## 4.1 POLICY SERIES AND IFM TOOLS

Besides finalizing ongoing publications, APFM will not focus on the development of any additional IFM Tools for the next year.

## 4.2 TRAINING

The main training workshop planned for the next period is related to the Volta River Basin (see section 2.3.2.1). Other requests received so far will translate to a workshop to be held in Montevideo in October 2016 (see section Argentina), and in a seminar in the framework of the Master of Advanced Studies in Sustainable Water Resources, a postgraduate program offered by the Institute of Environmental Engineering at the Eidgenössische Technische Hochschule (ETH) in Zurich in November 2016. Preliminary discussions have also been held with the IGAD-HYCOS Project Manager to support IFM Trainings in the framework of IGAD-HYCOS activities.

In terms of training materials, focus will be put on finalizing and mobilizing resources for the manuals mentioned in section 2.3.1.1 (i.e. Gender, Latin American modules, WWF Flood Green Guide, etc.)

## 4.3 NATIONAL AND REGIONAL SUPPORT ACTIVITIES

As part of the strategic plan 2014-2018, the general recommendation is to support the implementation of national, regional and transboundary approaches to IFM. This includes the identification of needs, the proactive involvement of national/regional actors, as well as the APFM technical support, also through its SBPs, in the identification and implementation of IFM measures.

Moreover, the role of APFM is to assist in building capacity and to support the country in formulating a project that has the potential of attracting funding ("bankable project"). This approach builds the capacity for flood management and project preparation. It aims to draw on the expertise developed as part of the African Ministers' Council on Water (AMCOW) and GWP's WACDEP to support institutions to better conceptualize projects and address the bottlenecks and constraints.

This approach is currently being developed for West Africa (see section 2.3.2.1), and similar initiatives involving other countries or regions may follow suit.

## 4.3.1 GWP SOUTH ASIA AND SOUTH-EAST ASIA INTEREST IN CBFM

Following the regional workshop on South-South Cooperation in Flood Management in Foshan, Guangdong, China, cooperation focusing on community-based flood management is being explored as a follow-up.



## 4.3.2 CONTRIBUTION TO THE DEVELOPMENT OF FLOODSS

Prof. Marian Muste's support has been crucial for the involvement of APFM in the RiverFlow2016 conference (see section 2.4.3), assisting in the drafting process of the paper "The role of science and research in WMO flood management activities". Prof. Muste has also sought the assistance of APFM in the development of FLOODSS, a proposal based on the concept of developing a Decision Support System (DSS) on flood management. Should this DSS be developed with the involvement of APFM, it would be an excellent tool to be coupled with the IFM Primer and, possibly, to complement the DEWETRA platform.

#### 4.3.3 **MEXICO**

It is expected that support will continue to be given to CONAGUA in the development of the national programme on flood management (PRONACCH). It is unclear at this moment how this will translate in the next period.

## 4.3.4 CBFM IN THAILAND AND LAOS - REVIEW

A Monitoring and Evaluation visit will have to be planned at roughly one year from the end of the project to evaluate and assess the durability and sustainability of the project. A meeting with ADPC to discuss the end of the project, solving any possible pending issue related to financial reporting, is planned to take place back-to-back with the WWF workshop in Bangkok (see sections 2.2.2 and 2.3.1.3)

## 4.3.5 PROJECT PREPARATION FOR EARLY WARNING SYSTEM FOR THE LAKE CHAD BASIN

APFM has been requested through GWP Central Africa in the first half of 2016 to provide inputs to the preparation of a project for an Early Warning System in the Logone basin, a part of the Lake Chad Basin. Inputs to the inception report have been provided and requests throughout the development of this project are expected.

# 4.4 OUTREACH

The implementation of the APFM Communication Strategy will continue in 2016/2017. In particular, it will include:

<u>Newsletter</u>: Three issues will be published, possibly in August 2016, December 2016 and April 2017. In addition to the print-friendly PDF version of the newsletter, an HTML version will be created and distributed for better accessibility on mobile devices and increased ability to track reader engagement.



## International events:

- World Water Week, 28 August 2 September, 2016, Stockholm, Sweden: dissemination of information material at the UN-Water and GWP booths, and on social media during the WMO takeover of the UN-Water Twitter account
- COP22: dissemination of information material on site and through social media accounts
- Any other relevant international event related to flood and water resources management, depending on the pertinence and significance of the event and the availability of human and financial resources to contribute to it.

<u>Articles and other outreach activities</u>: Increased collaboration with the WMO Media Officer to promote IFM through the Palais de Nations press corps briefings will also be pursued.

<u>Website and social media</u>: The APFM website and the APFM and PEARL social media profiles will be regularly updated to include latest developments. Infographics visually conveying salient points from APFM information materials will be developed for sharing on APFM social media profiles. Opportunities for cross-promotion on social media accounts of organizations with a significant social media following will also be explored, similar to the UN-Water Twitter takeover during World Water Week.

<u>A new APFM roll-up banner</u> will be produced in conformity with the new visual identity. Two items will be purchased, one to be kept in WMO headquarters in Geneva and the other to be delivered to the GWP Secretariat in Stockholm.

## 4.4.1 THIRD EUROPEAN CONFERENCE ON FLOOD RISK MANAGEMENT

The APFM will participate in the Third European Conference on Flood Risk Management (FLOODrisk 2016) which will take place between 17th and 21th October 2016 in Lyon, France. The aim of the conference is to explore research advances in flood risk analysis and innovations in flood risk management practice. It will consider all aspects of flood risk and will cover the causes of floods, their impacts on people, property and the environment, and portfolios of risk management measures. It could also provide a platform to discuss issues such as the development of FLOODSS between partners attending. Whether APFM participation will be of purely observation or active (through presentation or booth) will have to be determined.

# 4.4.2 IFM HELP DESK AND CATALOGUE OF SERVICES

The HelpDesk will continue to operate as in previous reporting periods. Outcomes of the APFM review are expected to provide clear indications about the strategic directions the Programme will have to take and therefore this will be reflected also on the HelpDesk functionalities.



For the time being, as mentioned in section 2.3.2.8, the IFM HelpDesk will need to increase its range of services by also offering the outcomes of the FFI on the topic of E2E FFEWSs. This will require close coordination with the newly founded programme of the GHSF, in order to make available (directly or through linkages) know-how and technical resources related to hydrometry (the "upstream part" of any E2E FFEWSs). Linkages with other WMO programmes (e.g. DRR, Tropical Cyclone, Severe Weather, FFGS, etc.) will continue to be pursued to ensure an entry point for the HelpDesk users to the possible widest technical expertise available in WMO related to flood management. At the same time, the already excellent cooperation with GWP will continue in order to optimize the outreach and effectiveness of APFM at the national and regional level through Country Water Partnerships (CWPs) and Regional Water Partnerships (RWPs).

The involvement of the Associate Outreach Officer will be crucial in ensuring visibility to the available expertise. This will translate in the finalization of the catalogue of services, a task that the TSU will carry on collectively, to be presented in the most user-friendly way.

In terms of new SBPs, discussions are currently undergoing with four institutions:

- 1) PoliMi: whereas ad-hoc cooperation has already been ongoing with the team of hydraulic engineering on topics related to flood loss assessment, following a meeting in St Louis with Prof. Francesco Ballio the Milan Polytechnic is formalizing the Letter of Engagement to become an SBP. Their presence would support the portfolio of SBPs with expertise on flood loss assessment and survey, methods for forecast and management of multi-risk scenarios as a support for emergency management plans, and web-based platforms for risk and impact scenarios.
- 2) Alterra Wageningen Univeristy: Dr Jos Timmermann has been indirectly cooperating with APFM for many years through joint APFM/UNECE activities focusing on transboundary flood management and climate change adaptation in the water sector. He has now been crucial in formalizing the Letter of Engagement between APFM and Alterra, the research institute of Wageningen University in the Netherlands. The expertise of Alterra cover topics such as flood and drought risk management in transboundary basins, governance, climate change adaptation, capacity building and natural based solutions for flood management in urban areas.
- 3) TU-Dresden: through Dr Firas Al-Janabi, former TSU member, discussions are planned to take place to renew TU-Dresden interest in becoming a SBP. Topics of mutual interest are hydrological data collection and management, urban flood management in a changing climate, and e-learning platforms on flood risk management.
- 4) IRHA: thanks to the direct involvement of Vessela Monta, Executive Director of IRHA, the letter of engagement is being finalized. The IHRA is pleased to collaborate and cooperate with APFM in



different matters, such the exchange of materials related to flood control, e.g. projects or studies, and knowledge. In addition both will, to the extent possible, develop a mutual promotion of their activities and achievements.

# 5. PROPOSED BUDGET

## 5.1 "PROPOSED" BUDGET 2016

The activities carried out in the first half of 2016, and those planned for the second half of 2016, have been reflected in the 2016 Budget proposal. Even though this 2016 budget was never discussed nor approved by the AC/MC, it reflects the work plan established by the Management Committee in September 2015.

Figure 13 presents the proposed (and partially implemented) budget for the APFM Trust Fund in 2016. It has to be noted that the elevated percentage for APFM Administration reflects the cost of the APFM review. However, the amount spent for this review (consultancy and travel-related expenditures) should be eventually refunded through the USAID Trust Fund in WMO. For administrative reasons, however, the drawdown will be requested to WMO Finance Department at a later stage.

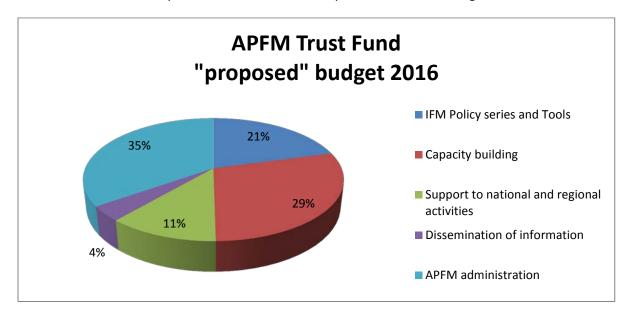


Figure 13 – proposed (and partially implemented during the period from 1 January to 31 July 2016) budget for APFM Trust
Fund in 2016



Considering also WMO and GWP financial and in-kind contributions, the distribution of budgeted expenditures for the year 2016 is presented in Figure 14. This reflects the recommendations of AC/MC to decrease investment in the production of publications (limiting it to the finalization of available drafts) and increase investments in support of national and regional activities.

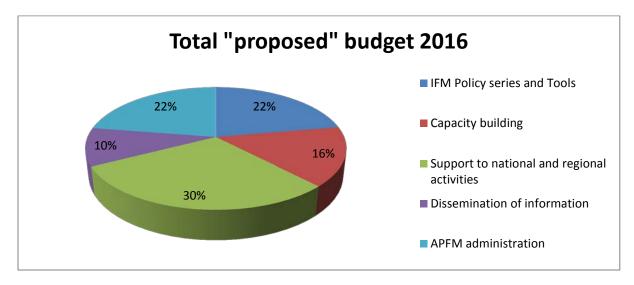


Figure 14 – proposed (and partially implemented during the period from 1 January to 31 July 2016) budget for APFM activities in 2016 – including WMO and GWP in-kind and financial contribution

Based on the expenditures recorded (but not yet certified by the WMO Finance Department) since 1 January 2016 (45,000 CHF circa) and activity already planned to take place in the second part of 2016, the planned total expenditure for the year 2016 corresponds to 103,500 CHF. This would allow a foreseen fund availability at 1 January 2017 of 260,000 CHF (283,000 CHF counting USAID contribution to the APFM review).

The budget for 2016 is provided in Annex V.

# 5.2 PROPOSED BUDGET 2017

The budget for the year 2017 will reflect decisions taken at the MC meeting in September 2016.

In the meantime, a proposed budget for 2017 elaborated by the TSU is presented in Annex V.

This proposed budget reflects (as can be seen from Figure 15) the strategic direction that it is envisaged for the APFM, i.e. reducing efforts in the production of publications (a 3% of total expenditures is still planned in case of unforeseen opportunities that might arise) and focusing more on training activities (28% of total expenditures) and support to national and regional activities (44% of the total



expenditures). In order to reflect the new APFM business model, based mainly on the development of project proposals to sponsor specific activities, it has to be noted that the expenditures budgeted under "trainings" and "support to national and regional activities" will not necessarily represent the actual cost of the activities, but rather discretionary costs related to the development of project proposals and building of networks and linkages with other financial and technical partners.

Moreover, to support outreach and ensure visibility of APFM activities and successes it is planned to invest more in communication and dissemination of information (17% of total expenditures).

Contributions from WMO and GWP will focus on the same direction, as represented in Figure 16.

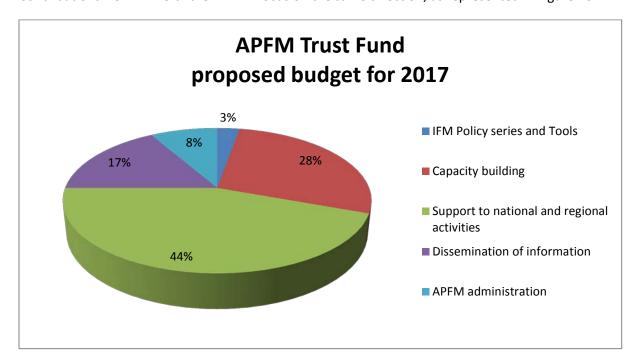


Figure 15 – proposed budget for APFM Trust Fund in 2017

The total level of expenditure for the year 2017 from the APFM Trust Fund is proposed to be 180,000 CHF, which would ensure a leftover of 80,000 CHF (103,000 CHF considering USAID contribution to APFM review in 2016) to cover activities in the first part of 2018 (date corresponding roughly to the end of the Project Officer's fixed-term position). After that date, the sustainability of APFM will mainly depend on the outcome of the new business model implementation.



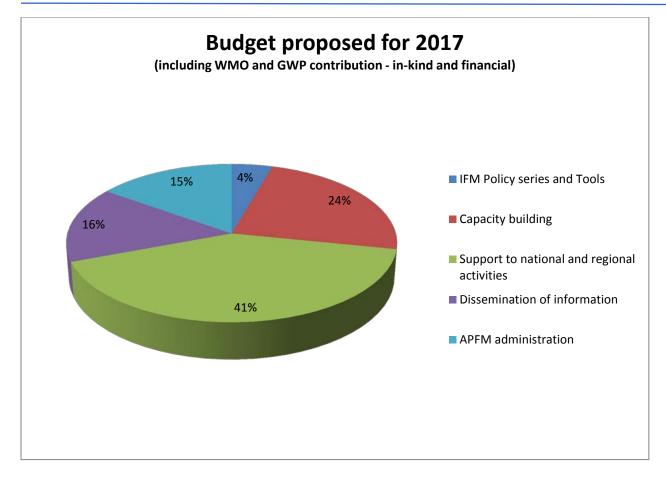


Figure 16 - proposed budget for APFM activities in 2017 - including WMO and GWP in-kind and financial contribution

# **LIST OF ANNEXES**

ANNEX I - List of IFM HelpDesk Requests

ANNEX II - APFM Logframe

ANNEX III - Checklist of recommendations of last AC/MC meeting

ANNEX IV - Financial report 1 August 2014 - 31 December 2015

ANNEX V – Proposed budget for calendar years 2016 and 2017