



# APFM

Associated Programme on Flood Management  
**HelpDesk on Integrated Flood  
Management (IFM)**

Flood Forecasting Initiative Advisory Group 2<sup>nd</sup>  
meeting, 1-3 December 2015  
WMO, Geneva, Switzerland



World  
Meteorological  
Organization  
Weather • Climate • Water



Global Water  
Partnership

# Associated Programme on Flood Management (APFM)



- Joint Initiative** between World Meteorological Organization and Global Water Partnership
- Technical Support Unit** embedded in the WMO Hydrology and Water Resources Branch
- Founded** in 2001
- Contributors** FOEN (Switzerland), MAE (France) and USAID  
(in the past: Japan, the Netherlands, Germany and Italy)



## Mission

“to support countries in the integrated management of floods within the overall framework of Integrated Water Resources Management.”



# APFM

# Maximizing net benefits from the use of floodplains

## Gains

Derived from the activities and use of floodplains (agriculture, urban development, transportation, recreational use, etc.)

—

## Losses

Direct damages and mid to long term impacts on environment and socio-economics

$\geq 0$

## Minimizing loss of life and livelihoods



# Risk Management: Hazards and disasters

*“There are two types of levees, those that have been overtopped by floodwaters, and those that will be”*

- William Hammon Hall, first State Engineer of California, 1880 circa

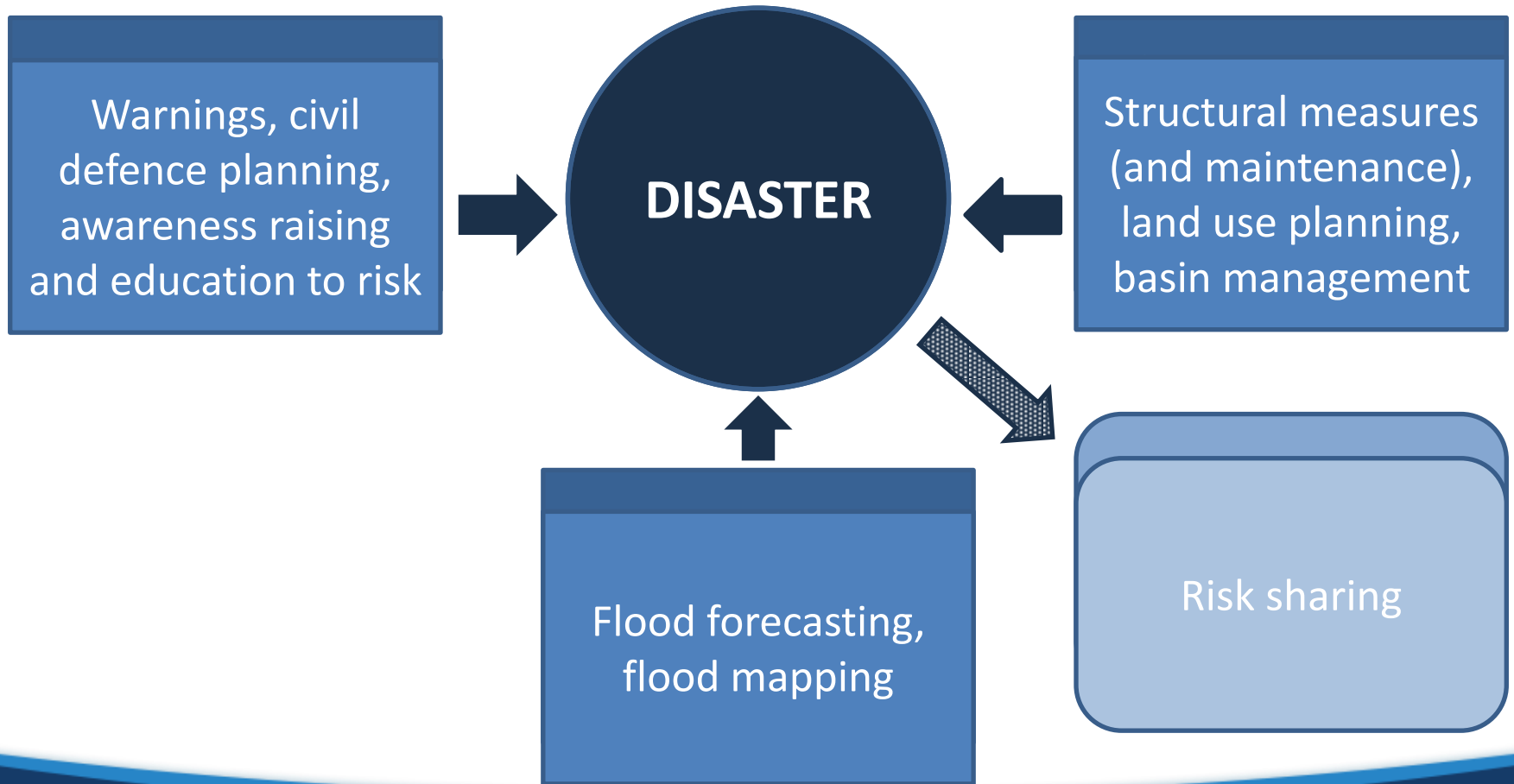
Natural hazards are **unavoidable**

**BUT**

Disasters are caused by social attitudes and developmental processes that increase vulnerability



# Flood Risk Mitigation: from theory to practice



# IFM principles



# Activities of the APFM

- Compilation of guidance and advisory tools
- Capacity Building
- Strategic advice on flood management through a HelpDesk
  - Developing training and advocacy material
  - Capacity building
  - Building a network of institutions supporting multi-disciplinary approach



A contribution to the International Flood Initiative



Associated Programme on Flood Management

English - Français - Español

[About Integrated Flood Management](#) | [About the IFM HelpDesk](#) | [Contact us](#)



# APFM



# Integrated Flood Management HelpDesk

A facility to provide guidance on flood-related issues to countries that seek to adopt the IFM concept.



## Objectives

- Quick access to information on flood management;
- Guidance and momentum for reform activities towards IFM;
- Continuous and sustainable capacity development mechanism in support of IFM implementation;
- Serves as a link between practitioners / decision makers and experts.





# Integrated Flood Management HelpDesk

## GET HELP

- Rapid Guidance
- Training & Capacity Building
- Start a Pilot Project
- Ask for Reference Material



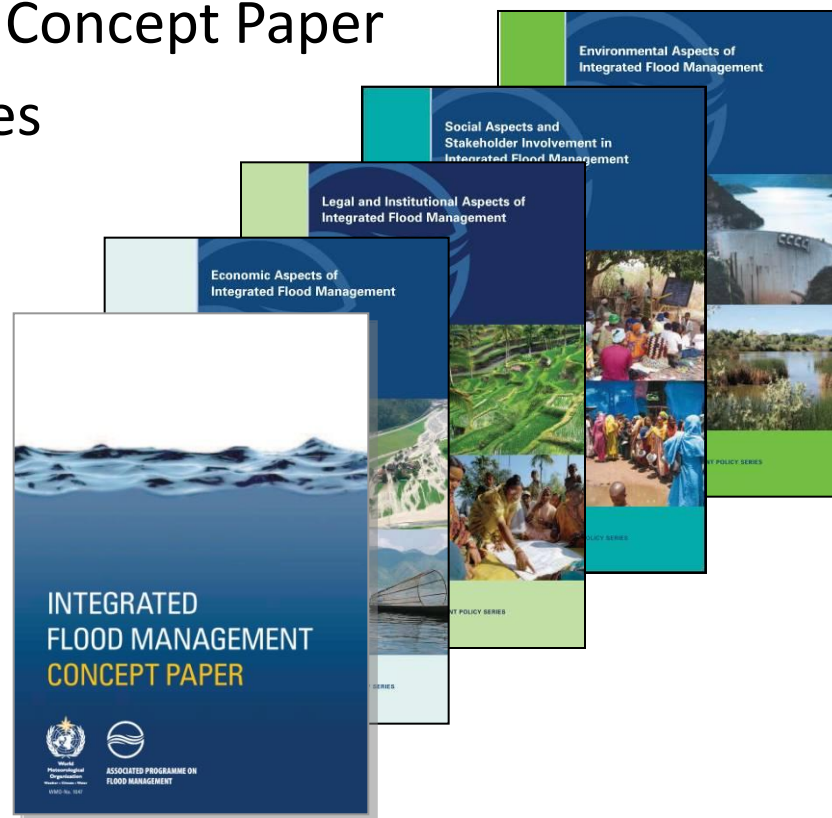
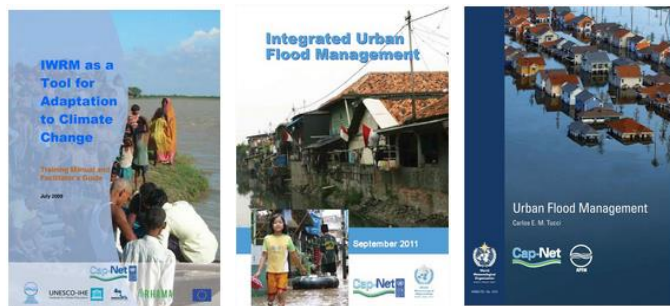
- Tools & Publications
- Learning Center
- Understanding IFM
- Questions and Answers

## HELP YOURSELF

**No Disaster Assistance or Flood Emergency Response Functions !!!**

# IFM publications

- Integrated Flood Management Concept Paper
- Flood Management Policy Series
- IFM Tools Series
- Training manuals



# IFM Tools Series

1. Formulating Basin Flood Management Plans
2. Rapid Legal Assessment Tool
3. The Role of Land-use Planning in Flood Management
4. Adaptation to Climate Change in Flood Management
5. Organizing Community Participation for Flood Management
6. Applying Environmental Assessment for Flood Management
7. Conducting Flood Loss Assessment
8. Risk sharing in Flood Management
9. Reservoir Operations and Managed Flows
10. Urban Flood Risk Management
11. Flood emergency planning
12. Mud Flows and Land Slides Management
13. River restoration and wetlands conservation (con Ramsar)
14. Flash Flood Management
15. Flood Proofing
16. Preliminary flood risk assessment (con DHI)
17. Urban Floods in a Changing Climate
18. Coastal Flood Management
19. Flood Forecasting and Early warning
20. Flood mapping



**Guidance documents in the IFM context  
bridging disciplinary gaps  
"living" documents**



# APFM

# Capacity building & training

- **What is needed?**  
Identification of problems and gaps
- **What is possible?**  
presenting opportunities and existing capacities

## APFM Provides:

- Vocational training (short training and workshops for different target groups)
- Specific topics and contact with experts :
  - Integrated flood management,
  - urban flood management,
  - community-based approaches
- Development of National Strategies that apply the IFM concept



# Educational and self-learning resources

- Links provided to external E-learning platforms
- Educational booklet for primary school teachers and students
- Serious gaming section

## E-LEARNING

A variety of E-learning resources have emerged from joint developments, cooperation with our partners, recommendations and simply good-practices. The below list is an attempt to capture those offers available. If you feel some e-learning platforms should be added here, do not hesitate to contact us through the HelpDesk.

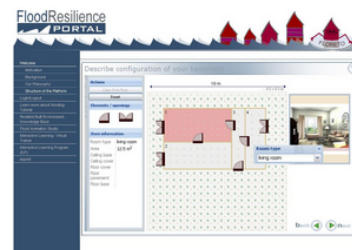
### Flood Manager E-Learning



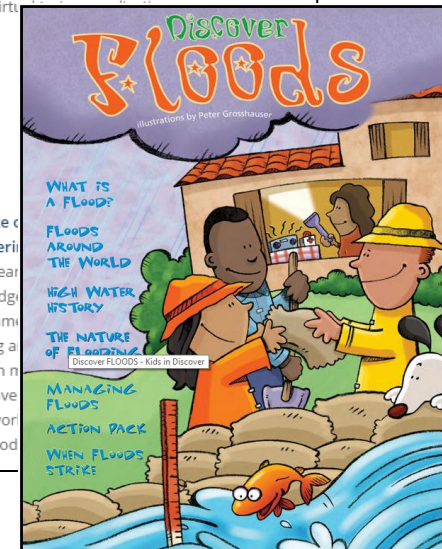
Technical University Hamburg-Harburg & APFM

E-learning platform on the concept of integrated flood management and flood risk management containing different modules, a knowledge base and a virtual simulation environment.

### FloReTo | Flood Resilience Portal



Institute of  
Engineering  
Active learning  
knowledge  
environment  
building a  
decision n  
to behave  
tools, wor  
own flood



## Start a Pilot Project

# Regional pilot projects

### Aim of pilot projects:

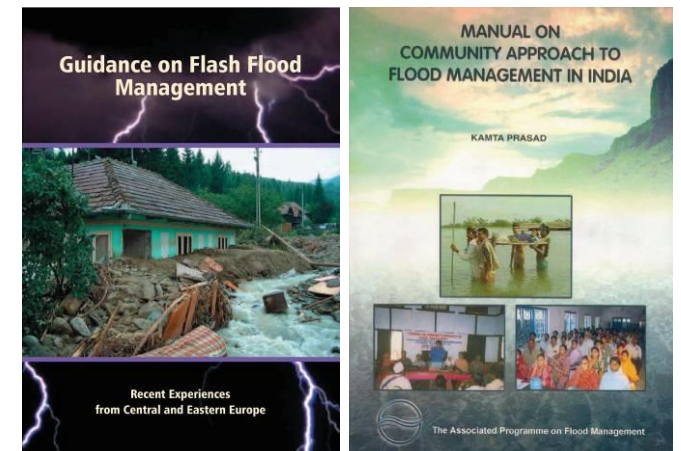
develop and implement IFM concept and its application through demonstration (with third party funding)

### Pilot projects have been undertaken in:

- South Asia (community-based approaches)
- Africa (flood management strategies)
- Central and Eastern Europe (flash floods)

### Available through the HelpDesk:

- Assistance in development of proposals
- Support in securing funding from donors
- Technical supervision



# APFM

Understanding  
IFM

Ask for  
Reference  
Material

Rapid  
Guidance

Questions and  
Answers

- General understanding of the IFM concept
- Bibliographic references
- FAQ
- Rapid guidance and networking

# Ad-hoc remote guidance

## Most viewed questions



Why is economic analysis essential?

May 19, 2013

[Read more →](#)

ENVIRONMENT  
AND ECONOMY

What are the tools other than the traditional cost-benefit analysis for making financial decisions?

May 19, 2013

[Read more →](#)

ENVIRONMENT  
AND ECONOMY

What are public catastrophe funds?

May 19, 2013

[Read more →](#)

## Publications that might interest you



Risk Sharing in Flood Management

October 22, 2014



The Role of Land-Use Planning in Flood



Urban Flood Risk Management

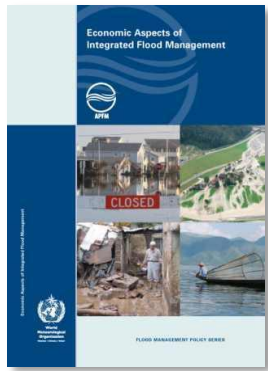


# APFM

# IFM Policy Series

## *Priority level:*

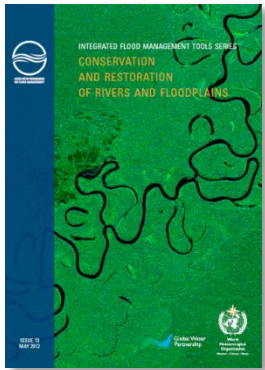
- ***Primer for Integrated Flood Management from Theory to Implementation*** – noting that the Primer will not be part of the IFM Tool series, nor of the Policy Papers;
- ***Environmental Aspects of IFM Case Studies*** – the TSU clarified that a contract to the designated consultant has been issued and the work will start in October 2015;
- ***IFM Concept Paper 4th edition*** – Minor changes only (e.g. add definition of “resilience”);
- ***Economic Aspects of IFM 2<sup>nd</sup> edition*** - Revision still needed, but would require identification of experts.





# IFM Tool Series

## *General points for consideration (1/2)*

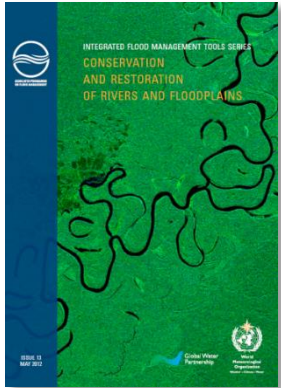


- Ensure cross-references between Tools and explicit reference to the HelpDesk;
- Develop a map of Tools for inclusion in the HelpDesk;
- How to include the landscape out there into the IFM Tool series (e.g. the WWF/USAID «green FM» publication);
- Deltares institute offered to lead the development of a new Tool on green infrastructures for FM, linking to the mentioned WWF/USAID publication on “Green Flood Risk Management Guidelines” (provisional title) – GWP is keen to contribute.



# IFM Tool Series

## *General points for consideration (2/2)*

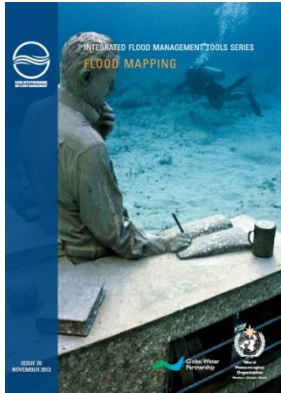


- Develop a process of incorporating third parties publications into APFM Helpdesk;
- Include gender issues in all relevant Tools (particularly Health and Sanitation);
- Track process to know how Tools cover actual needs, expectations and what is their impact. It was suggested to SBPs to inform the TSU whenever they promote or disseminate APFM publications, in order to better assess which topics are to be covered in the future.



# IFM Tool Series

*Content finalized, in final design*



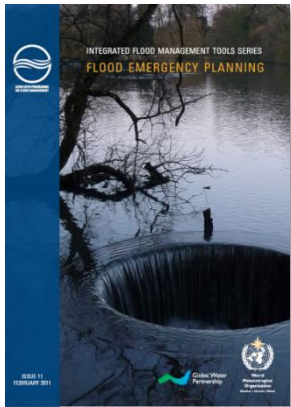
- Social Impact Assessment and Public Perception of Flood Risk (English and French);
- The Role of the Media in IFM;
- Effectiveness of Flood Management Measures;
- Reservoir Operation and Managed Flows - version 2.1;
- Health and Sanitation Aspects of Flood Management;
- Asistencia técnica para al preparación de una estrategia de incidencia política (Science-Policy Interface) (English and Spanish).



# IFM Tool Series

## *Work in progress – Being finalized*

- Laws, Regulations and Technical Standards for Flood Management;
- Organizing Community Participation for Flood Management;
- The Role of Land-Use Planning in Flood Management - 2<sup>nd</sup> edition (expected in December);
- Crisis Mapping and Crowdsourcing in Flood Management;
- Project Cycle in Flood Management – to be developed as part of IFM Project Preparation Initiative in West Africa (likely to be a manual);
- Flood Management in a Changing Climate - 2<sup>nd</sup> edition (expected in November);
- Loss Assessment Case Studies (expected in December).



# IFM Tool Series

*To be initiated (1/2)*

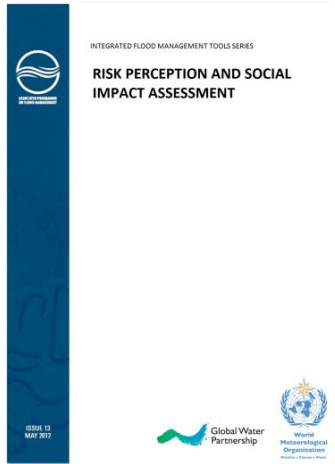
- Flood Management in a Multi-hazard Environment:
  - BfG and Caroline Wittwer volunteered to assist in the development - TSU to send the draft available;
  - Tool to include multi-hazards perspective, with reference to PEARL and the publication *Comprehensive Risk assessment for Natural Hazards* ;
  - Contact specialists who deal with multi-hazards to give a broader approach to the publication (e.g. reinsurance companies, UNISDR)
- The Contribution of Geospatial Sciences to Flood Management – CIMA volunteered to take the lead, consulting other SBPs (e.g. UNOSAT);



# IFM Tool Series

## *To be initiated (2/2)*

- Rapid Legal Assessment 2nd edition – University of Dundee volunteered to take the lead;
- Formulating a (transboundary) Basin Flood Management Plan – 2nd edition;
- Governance Issues in Flood Management – Deltares institute to inquire (cc: BfG) with UNESCO-IHE. BfG to consider possible input, as well as CIMA;
- Historical Approaches and Coping Strategies for Flood Management – interact with USAID to get additional materials through HOMS and from the “lessons learnt” workshop held in January 2015;



# Capacity Building

## *High priority*

- Develop training manual with GWA on Gender Issues of Flood Management;
- Develop e-learning materials on the role of Land Use Planning in Disaster Management with the World Bank;
- Develop training modules in Spanish for local Civil Protection authorities in Paraguay (CONAGUA interested to participate and use these modules);
- Prepare Power Point presentations on remaining IFM Tool Series – University of Dundee and Geneva volunteered for the topics of transboundary flood management and legal assessment tools;
- Add IUFM module to GWP/University of South Florida training course on Integrated Urban Water Management (IUWM) – CapNet volunteers to lead on behalf of APFM the development of IUFM module with materials taken from the existing APFM urban flood management training materials;



# Capacity Building

## *Medium priority*

- Finalize CBFM Training Manual with ADPC;
- BoM to contribute in 2016 with modules on competency-based trainings for flood forecasters;
- Develop action plan on E-learning with TUHH and TUD – teleconferences to follow, to enrich the current e-learning webpage on the APFM website with other existing platforms from partner institutions;
- University of Geneva to add transboundary issues of FM modules to their training platform, in cooperation with University of Dundee;
- Finalize IFM Training Manual with CapNet. DHI, ADPC to review, BfG and possible might be available by BoM;





# Capacity Building

## *Training workshops*

- West Africa – project preparation on IFM with the NMHSs and the Regional and Country GWP network;
- Montpellier – in the framework of the ICID conference;
- Argentina – Master course on IFM with FICH – University of Santa Fe;
- Zagreb – with UNESCO, for the International Sava River Basin Commission (ISRBC);
- Thun – Swiss NGO Platform on IFM.



# Capacity Building

## *General activities – high priority*

- Support to the PRONACCH in Mexico - with CONAGUA;
- Continue to implement WP7 of PEARL – Preparing for Extreme And Rare events in coastal regions - with UNESCO-IHE, TUHH, EuroAqua, DHI, ICHARM and others;
- Continue to implement the project on Community Based Flood Management (CBFM) in Thailand and Lao PDR - with ADPC;
- Seek funding opportunities for Implementation of IFM strategies in West Africa;
- Enhance linkages with GFCS, CIFDP, FFGS and SWFDP;
- CIMA proposed to have APFM involved in training activities in the framework of the IPA for the Balkans to which APFM contributed in very early stages (July 2014);



# Capacity Building

## *General activities – medium priority*

- Follow developments on CBFM in Iowa State;
- Support IFM in the Amur River Basin and in Siberia;
- Support China GWP in the adoption of IFM;
- Support GWP Caribbean by providing a starting point and information resource for future Caribbean IFM demonstration projects;
- Continue the development of Coastal flood management project in Bangladesh;
- Seek funding opportunities for the development of a project on transboundary flood management in the Dniester – Zoï to keep APFM informed about any further activities;



# Outreach

## *Activities (1/2)*

- Participate and advocate for the concept of IFM at the following International events:
  - World Water Week 2015 (WWW 2015), 23-28 August 2015, Stockholm, Sweden ;
  - UN High level events on DRR and SDGs on water-related disasters;
  - COP21, 30 November-11 December 2015, Paris, France ;
  - Seventh Meeting of the Parties to the UNECE Water Convention, 17-19 November 2015, Budapest, Hungary;
  - Flood Risk 2016 conference, 17-21 October 2016, Lyon, France,;
  - Other non-water-related events, such as economic, humanitarian, migration, and technical events;



# Outreach

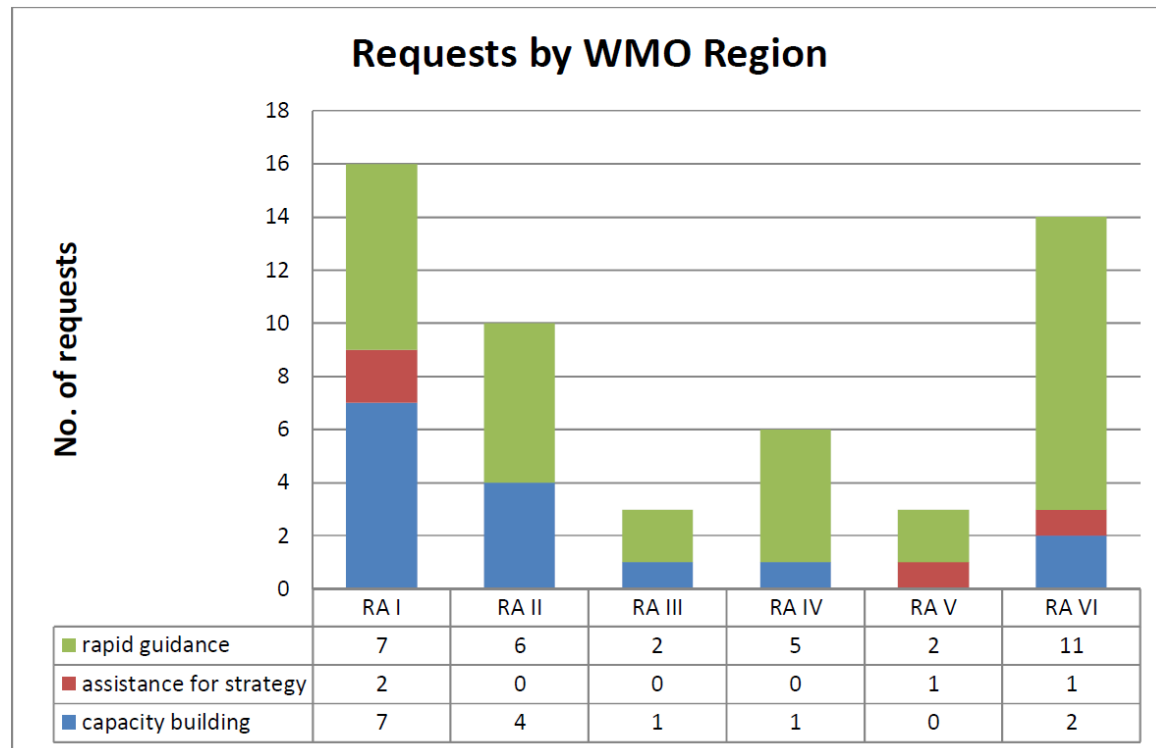
## *Activities (2/2)*

- Continue the publication of the Newsletter (3 issues per year);
- WMO to promote the HelpDesk at its Regional Meetings;
- Circulate the Catalogue of Services template among SBPs;
- Include the Catalogue of Services in the HelpDesk and develop paper information material (for instance, a folder containing a general brochure and SBPs factsheets);
- Ensure conformity of APFM website with smartphone technologies
- Articles and other outreach activities: increase presence in external newspapers, newsletters, websites;
  - Floodlist.com;
  - D-AEP.org;
- Others: produce a new APFM roll-up banner



# Success indicators

- Launched in 2009
- Around 170 requests received from more than 40 countries
- Used by:
  - NGOs and private sector
  - Academic institutions
  - Governmental agencies



## Beneficiaries

Government agencies on various levels, CBOs, RBOs,  
Voluntary Organizations, Bi- and Multilateral  
Organizations, Universities



**Request** for assistance, preparation of project proposal,  
supervision of technical implementation



Mail to  
**floodmanagement**  
**@wmo.int**

Technical input

## HelpDesk Support Base

institutes specialized in various IFM-relevant disciplines



# Support Base Partners

Specialized institutes in various disciplines relevant for IFM



KOREA WATER FORUM



UNESCO-IHE  
Institute for Water Education





**For more details:  
[www.floodmanagement.info](http://www.floodmanagement.info)**



**Thank you for your attention**



**APFM**