MEKONG RIVER COMMISSION

FLOOD MANAGEMENT & MITIGATION PROGRAMME

1. Summary Overview FMMP 2004-2010
2. Expectations FMMP 2011-2015
3. Challenges of the Workshop

International Workshop re: "People's Centered Approach in Flood- and Land Management in the Mekong Basin"

23-25 Feb. 2011 Luang Prabang, Lao PDR

YEAR 2000 Flood

Flood Management and Mitigation Strategy 2001

- Provide Technical Products & Services
- Address & facilitate the Resolution of Transboundary Flooding Issues
- Deliver Capacity Building & Technology Transfer to Member Countries

Flood Management and Mitigation Programme 2004

" People's suffering and economic losses due to floods are prevented …,while preserving the environmental benefits of floods"

C1: Establishment of a RFMMC
C2: Structural Measures & Flood Proofing
C3: Mediation of Transboundary Flood Issues
C4: Flood Emergency Management Strengthening
C5: Land Management

- Maintain flood tools, data and knowledge

- Produce accurate regional forecast and timely and effective dissemination

Strengthen the national capacity in more effective land management by using reliable flood-related information

-Reduce the vulnerability of people to the negative impacts of floods

- Establish management capacity for development and refinement of implementation plan

Strengthen the national capacity of flood emergency management by providing a series of the training courses

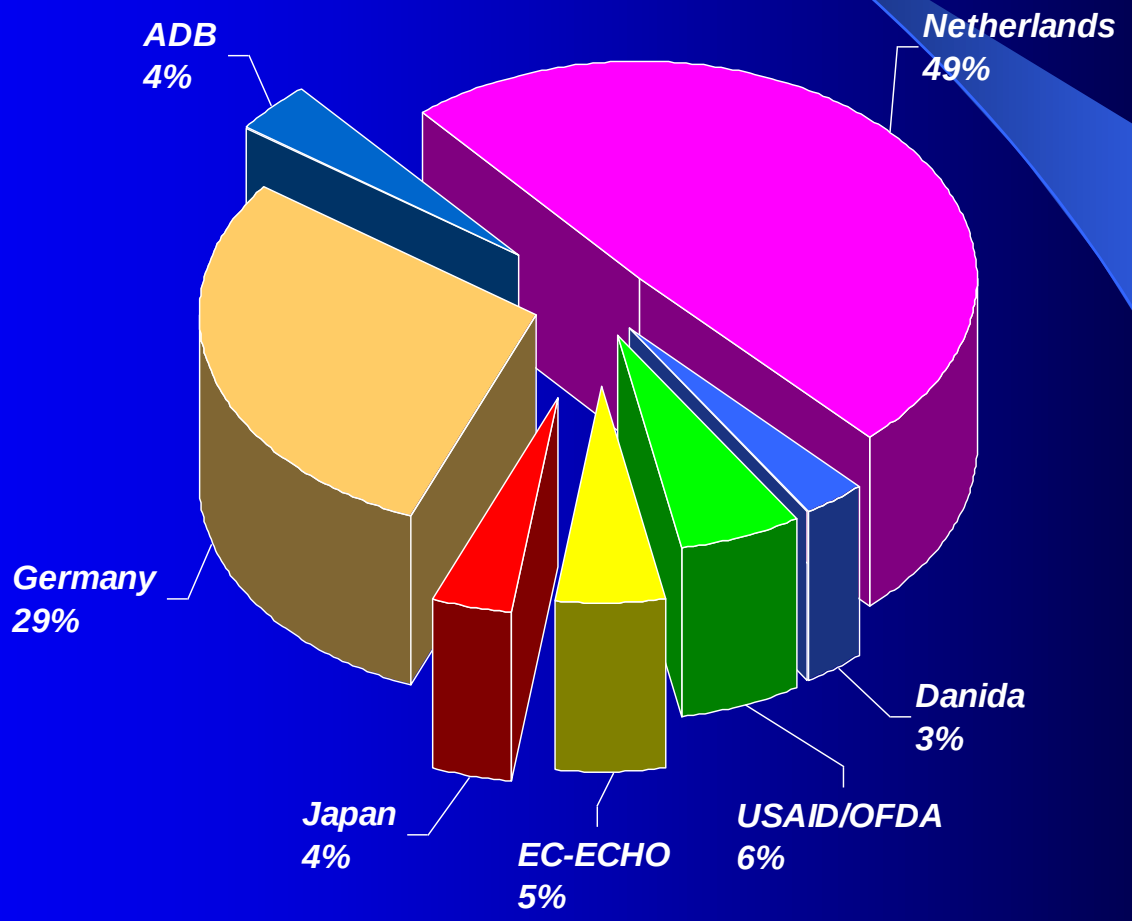
Enhance cooperation in addressing transboundary flood and related issues

People's suffering and economic losses due to floods are prevented, minimised, or mitigated, while preserving the environmental benefits of floods…

FMMP 2004-2010: DONORS AND BUDGET

Budget Value: **USD 26.5 M**

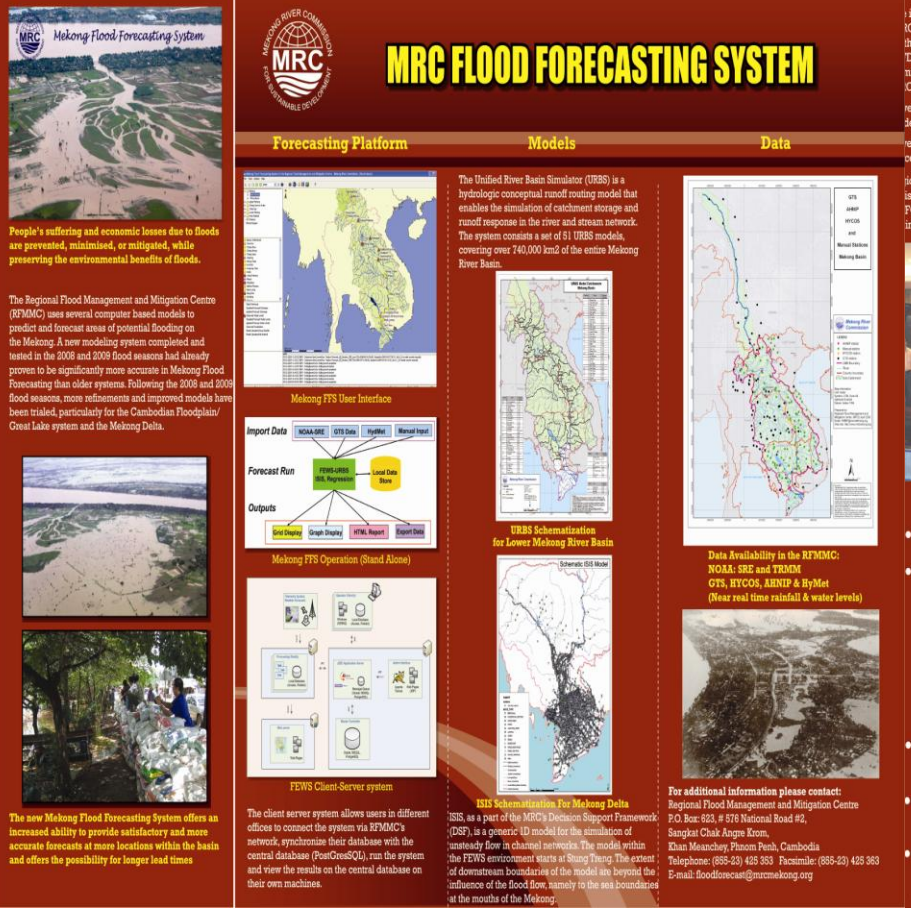
USD 17.5 M Direct Funding + USD 8.0 M in Services



COMPONENT 1

Establishment of the Regional Flood Management and Mitigation Centre (RFMMC)

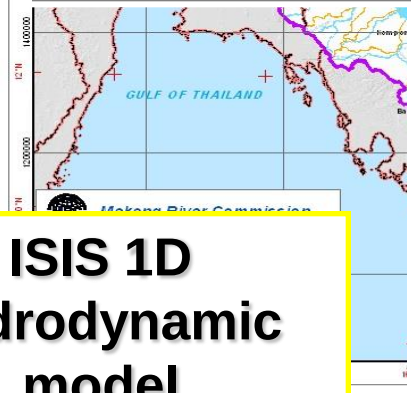
MRC Flood Forecasting System



MRC Flash Flood Guidance System

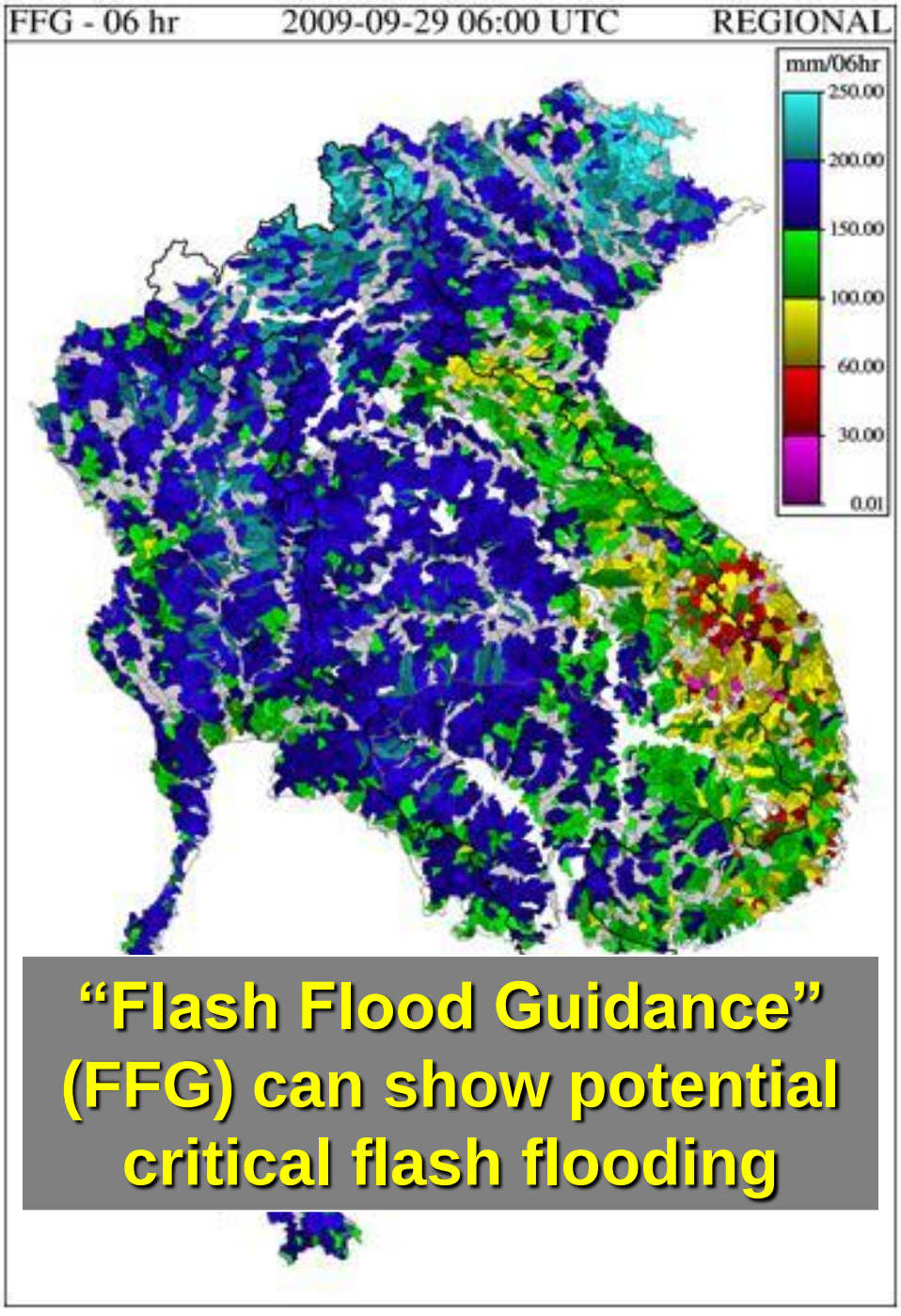
Forecast accuracies for 1-5 days based on current mean absolute error

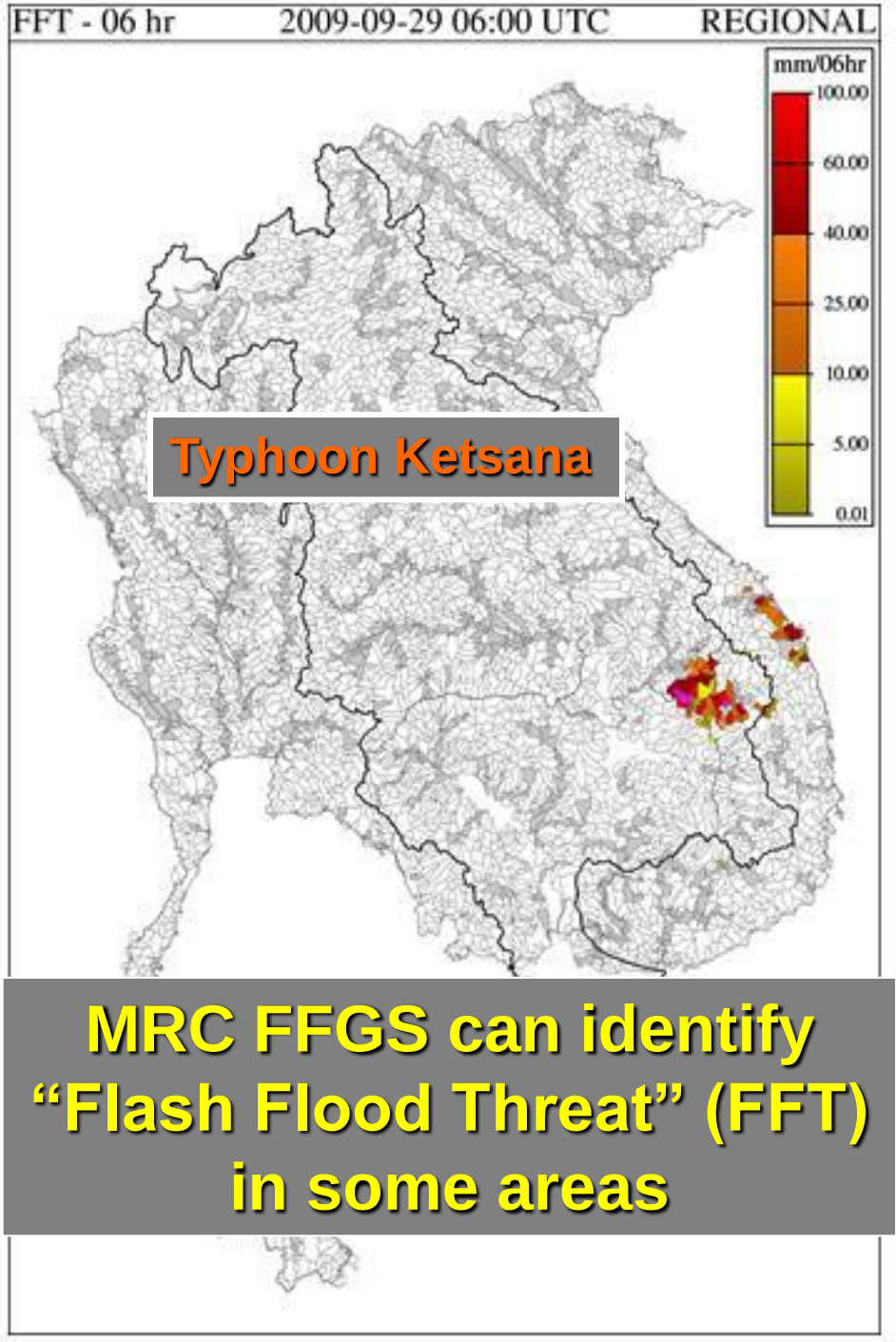
Mekong FFS provides daily flood forecasts for 22 forecast stations in the mainstream via www.mrcmekong.org



ISIS 1D hydrodynamic model

Station	Lead Time (days)									
	1	2	3	4	5	6	7	8	9	10
Chiang Saen	0.25	0.5		0.75	1.0	N/A	N/A	N/A	N/A	N/A
Chiang Khong						N/A	N/A	N/A	N/A	N/A
Luang Prabang.						N/A	N/A	N/A	N/A	N/A
Chiang Khan						1.0	N/A	N/A	N/A	N/A
Vientiane	0.1	0.25	0.5	0.75			1.0	N/A	N/A	N/A
Nong Khai								N/A	N/A	N/A
Paksane								N/A	N/A	N/A
Nakhon Phanom								N/A	N/A	N/A
Thakhek								N/A	N/A	N/A
Savannakhet								N/A	N/A	N/A
Mukdahan								N/A	N/A	N/A
Khong Chiam								N/A	N/A	N/A
Pakse								N/A	N/A	N/A
									N/A	N/A
									N/A	N/A
									N/A	N/A
Phnom Penh Port	0.1					0.25			0.5	
Prek Kdam										
Neak Luong										
Tan Chau										
Chaktomouk										
Koh Khel										
Chau Doc										



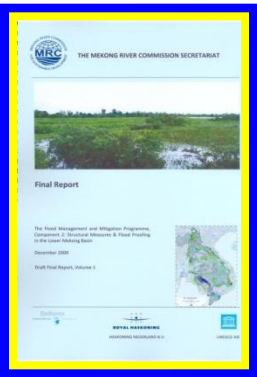


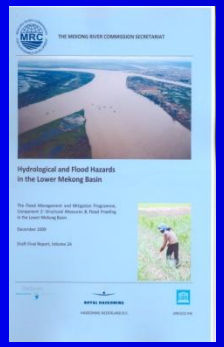
"Flash Flood Guidance" (FFG) can show potential critical flash flooding

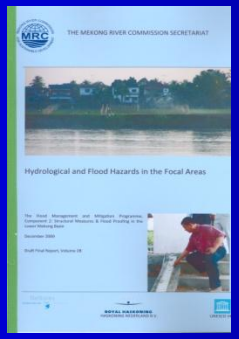
MRC FFGS can identify "Flash Flood Threat" (FFT) in some areas

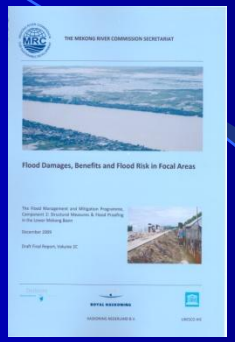
COMPONENT 2

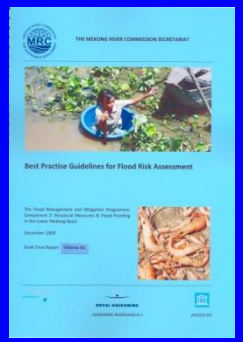
STRUCTURAL MEASURES & FLOOD PROOFING

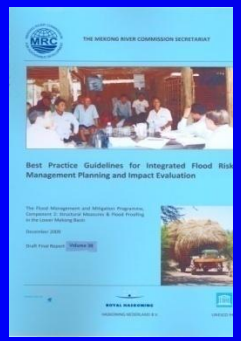


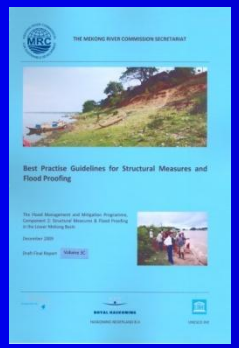


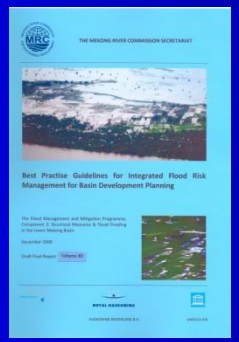


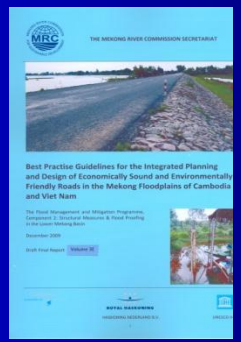


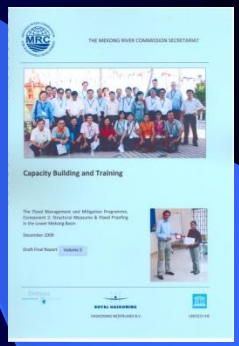


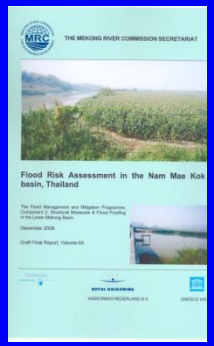


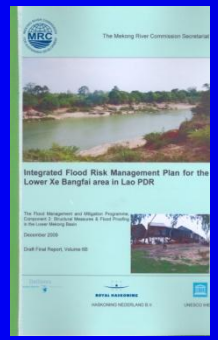


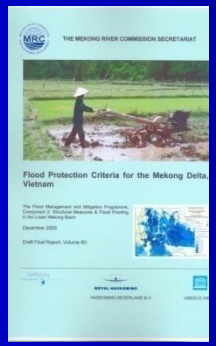


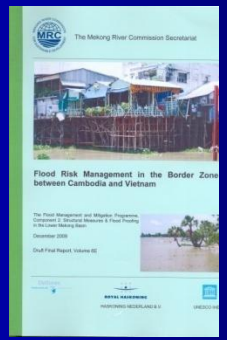




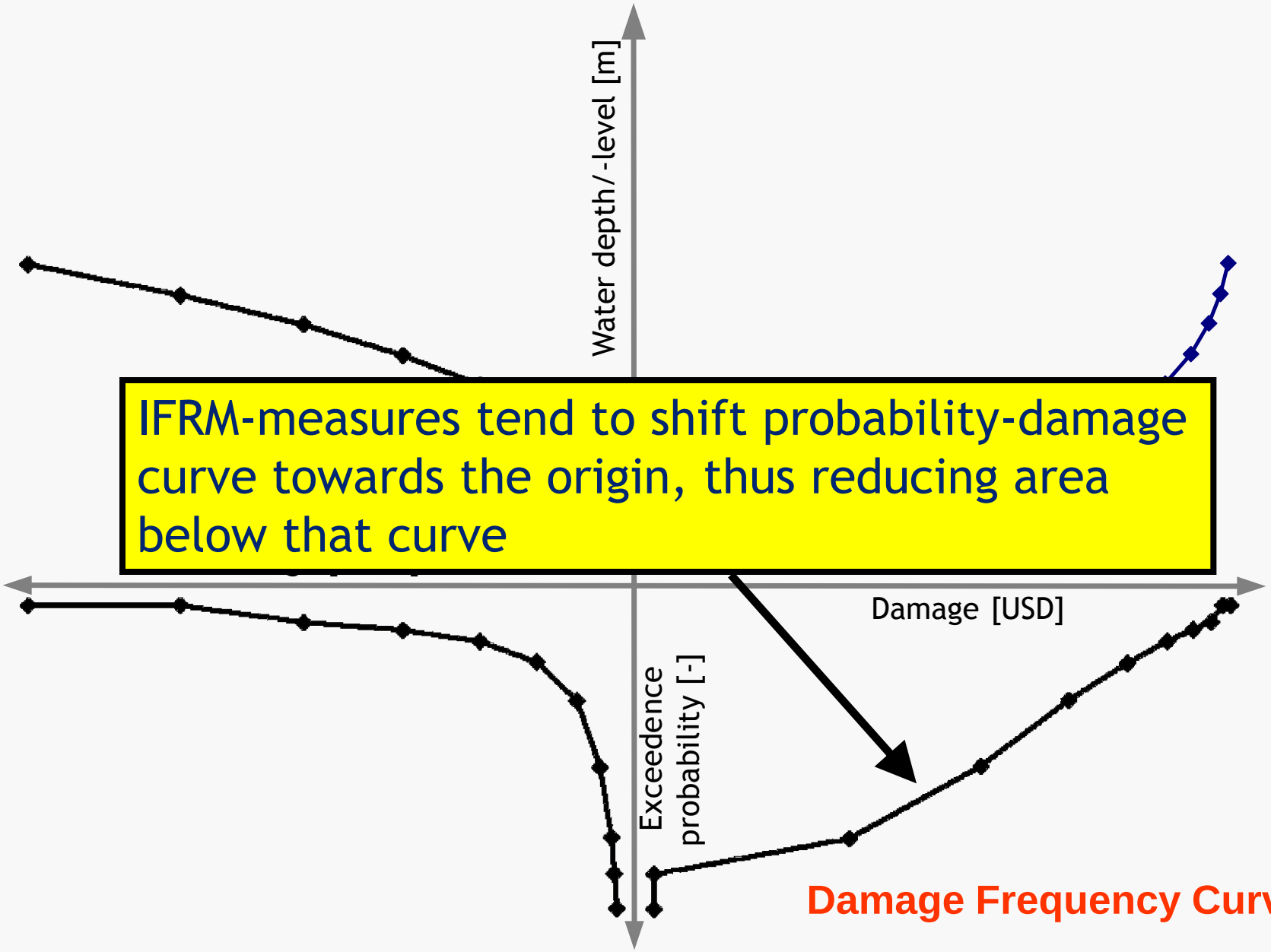






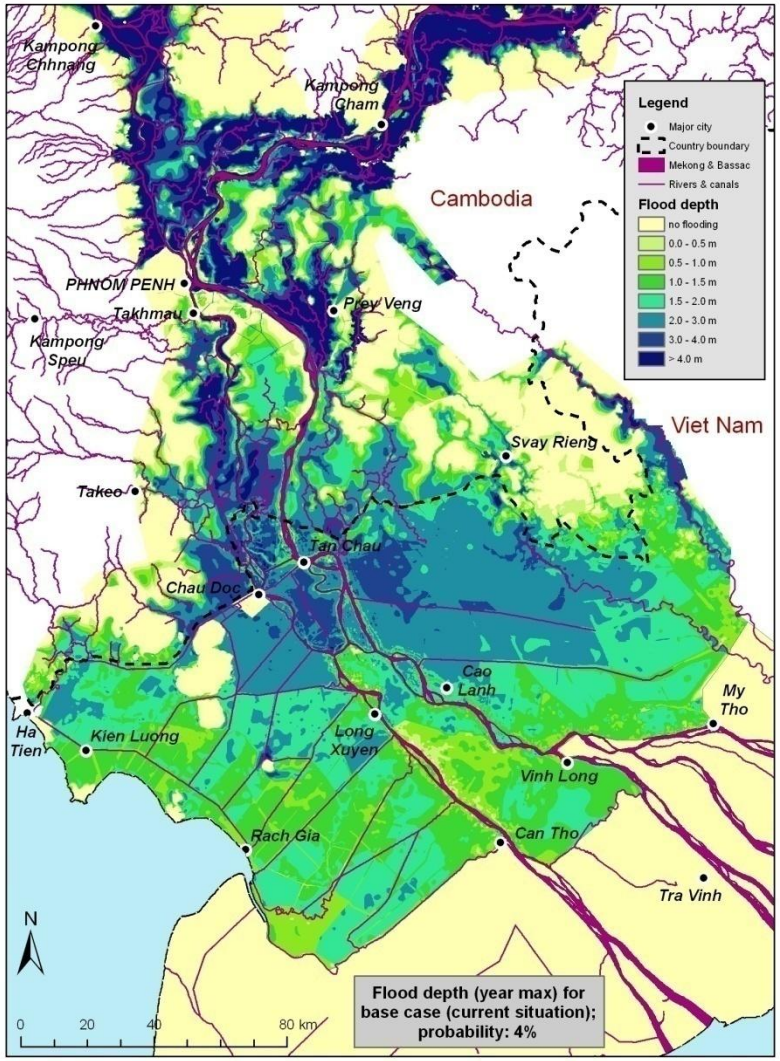


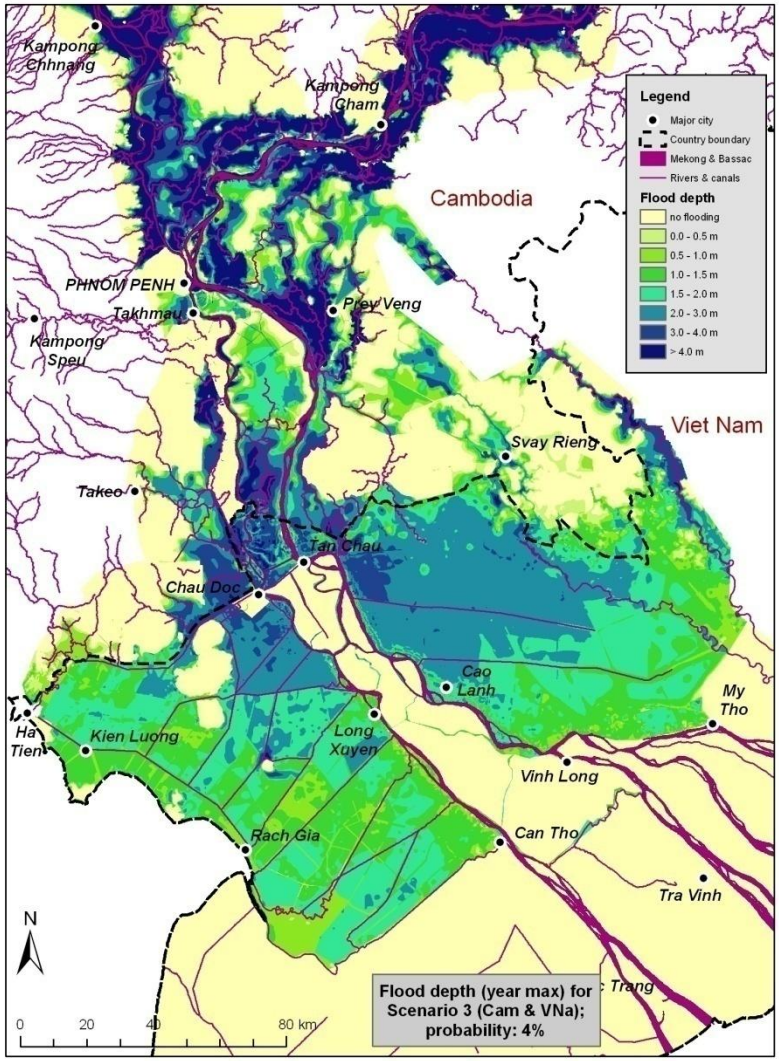
EFFECT OF FLOOD RISK MANAGEMENT MEASURES



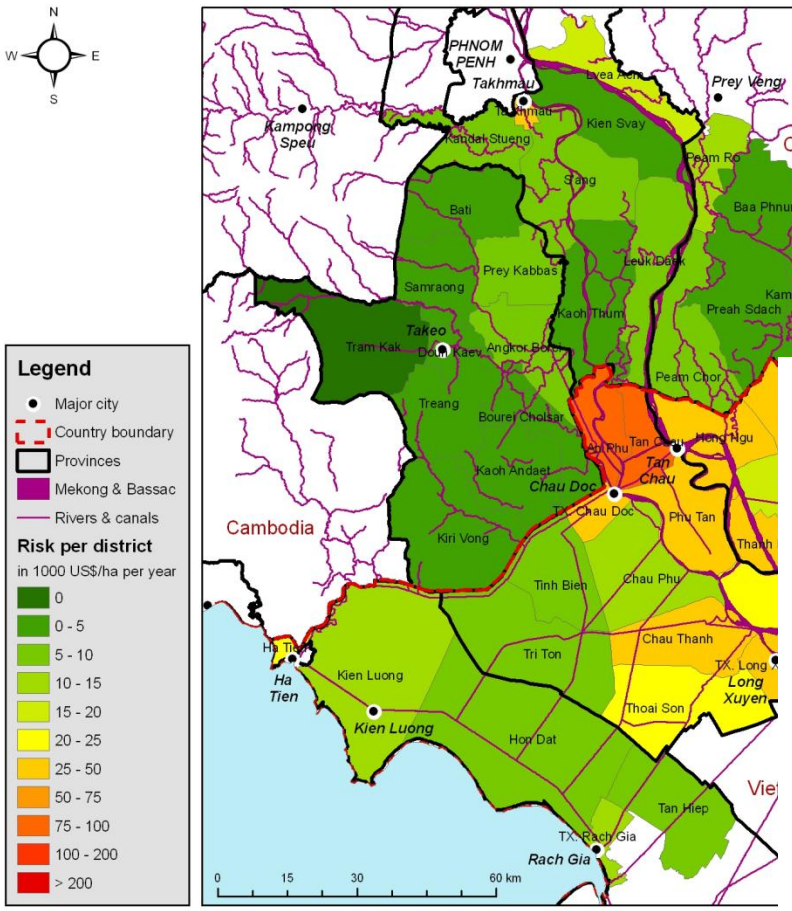
Flood Hazard Maps for Base-Case and for a Future Scenario

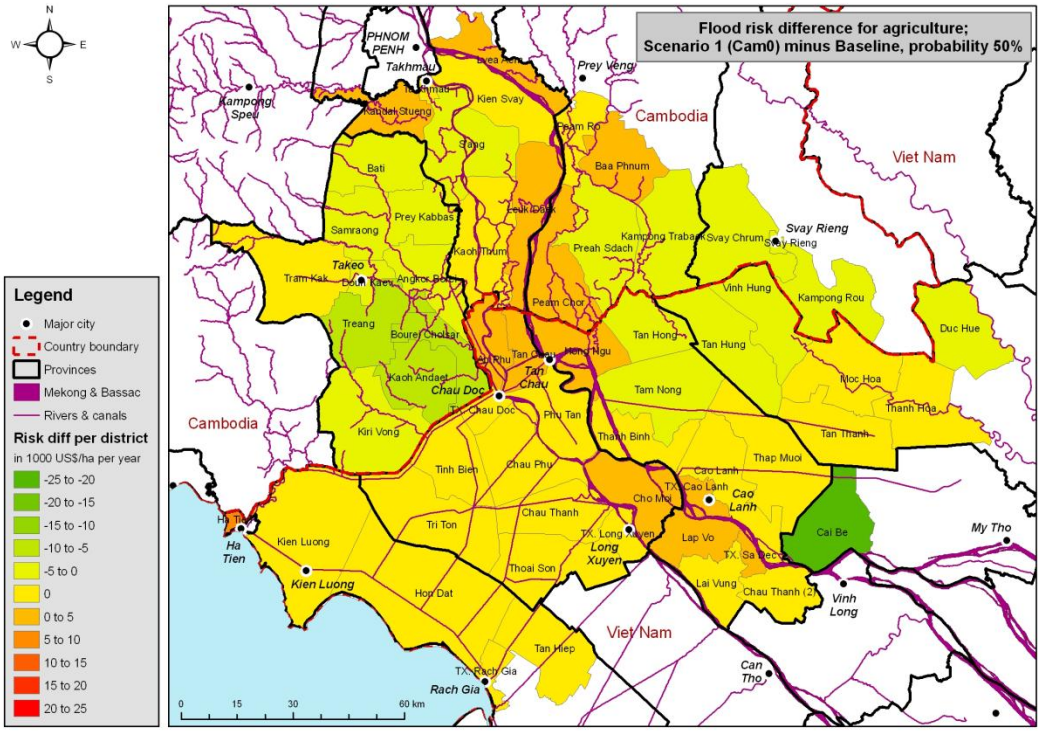
(at 4% probability of exceedance)





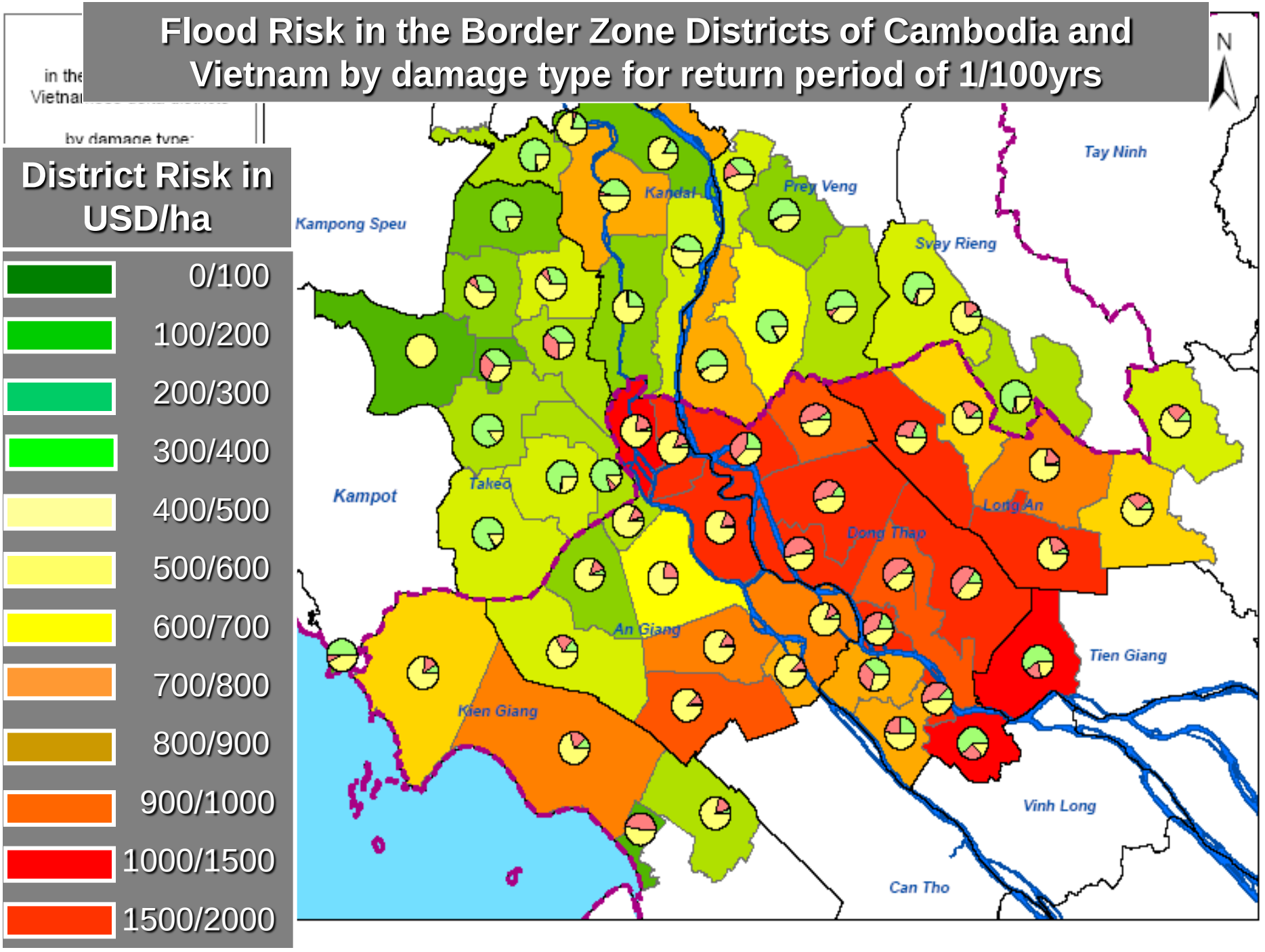
Flood Risk Map Base-Case
Map Difference in Flood Risk
(at 50% probability of exceedance)





Flood Risk Assessment and Management

Flood Risk in the Border Zone Districts of Cambodia and Vietnam by damage type for return period of 1/100yrs



COMPONENT 3

Enhancing Cooperation in Addressing Trans-boundary Flood Issues, Differences and Disputes

Information

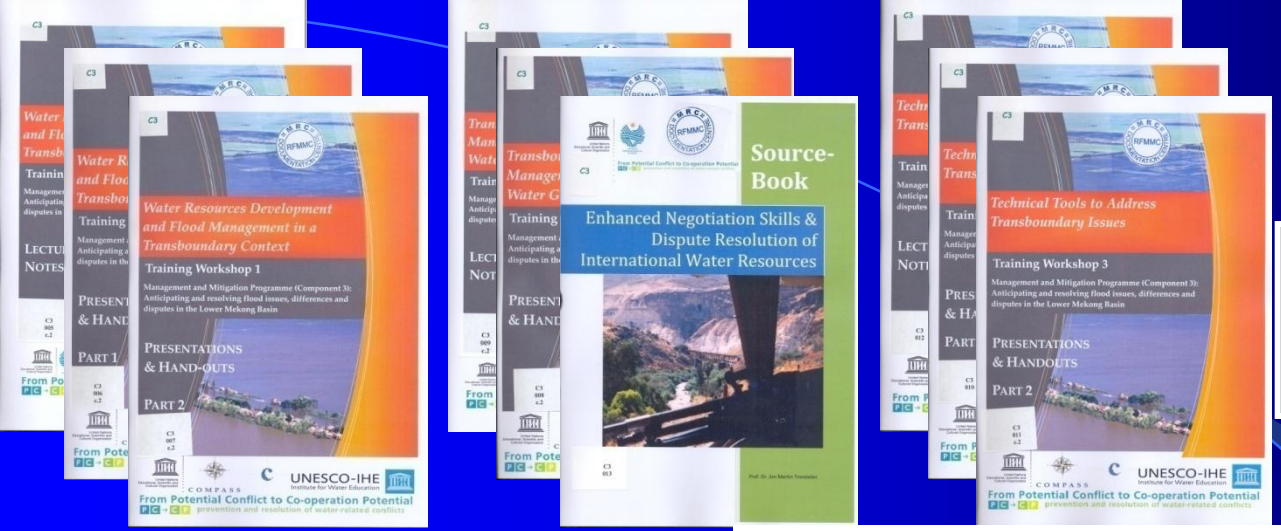
- List of TB Flood Issues
- Sets of international, regional and national "Best" Practices, Instruments and Case Studies

Awareness and Skills

- Common understanding about mandate and options;
- Better awareness, knowledge and skills re: Conflict Management and Resolution

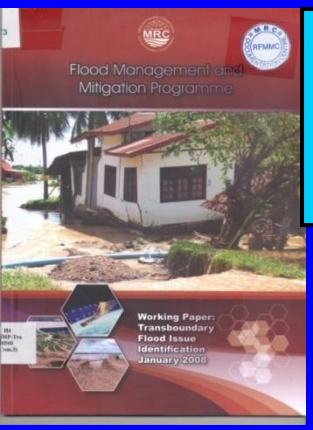
Toolbox

- List of tools needed for facilitating Addressing Issues, Differences and Disputes
- Administrative Tools
- Technical Tools



Training materials
Capacity Building Programmes I & II

4 National Reports "*Identification of Transboundary Flood Issues at National Level*" and Regional compilation "*Transboundary Flood Issue Identification*", Jan. 2008 (Working Paper)



Identification of Transboundary Flood Issues at National Level

(Vietnam)

Explanatory Manual of LA MA95 (+Pocket Version), Dec.2010

"*Legal Aspects of the Mandate of the 1995 Mekong Agreement for Enhancing Cooperation in Addressing Transboundary Flood and Related Issues*", Oct. 2007 (Working Paper)


EUROPEAN STUDY TOUR

7-17 SEP 2009



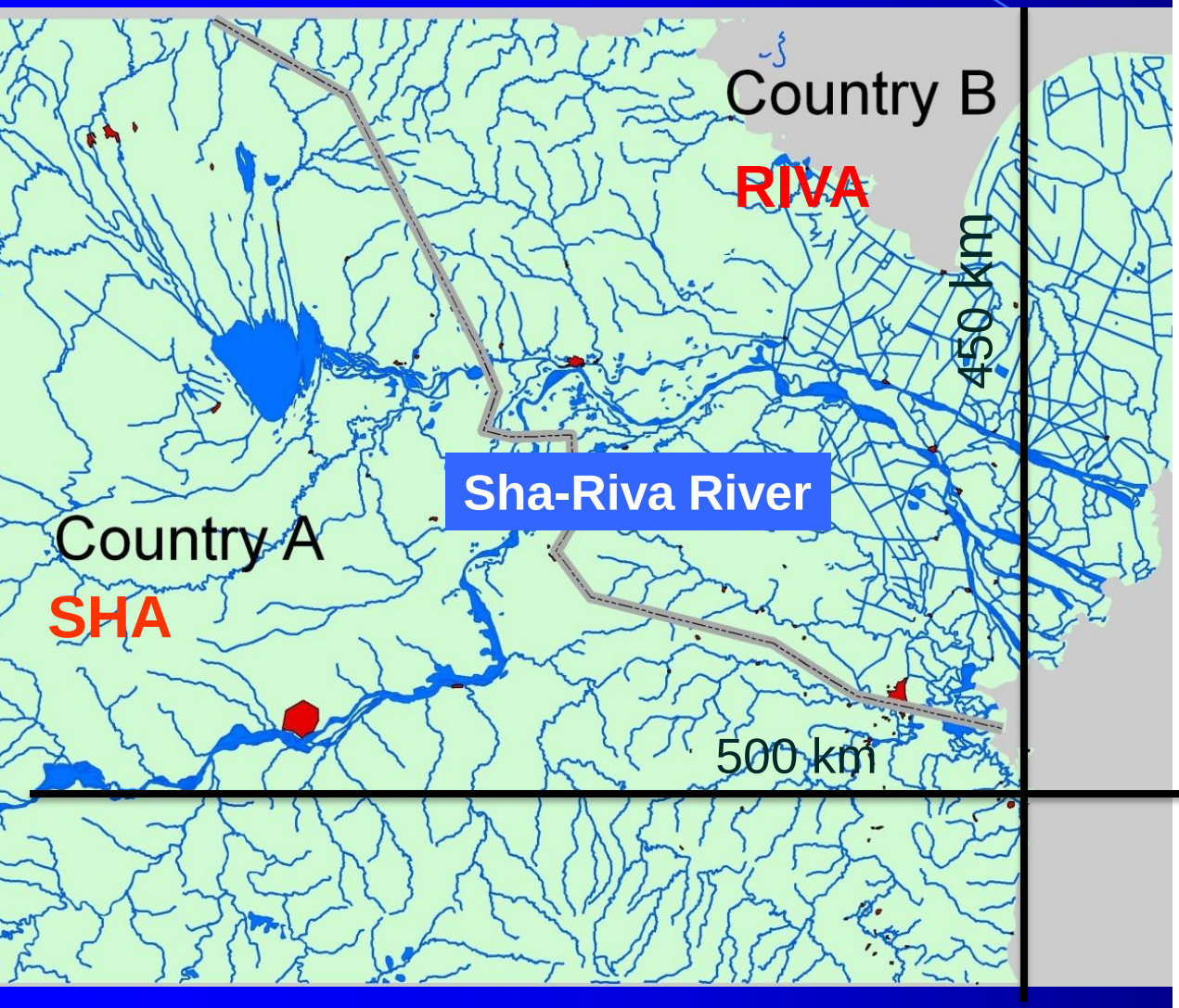

MEKONG STUDY TOUR

8-11 MAR 2009


CHINA STUDY TOUR

12-17 OCT 2009

The "SHA-RIVA" PILOT STUDY



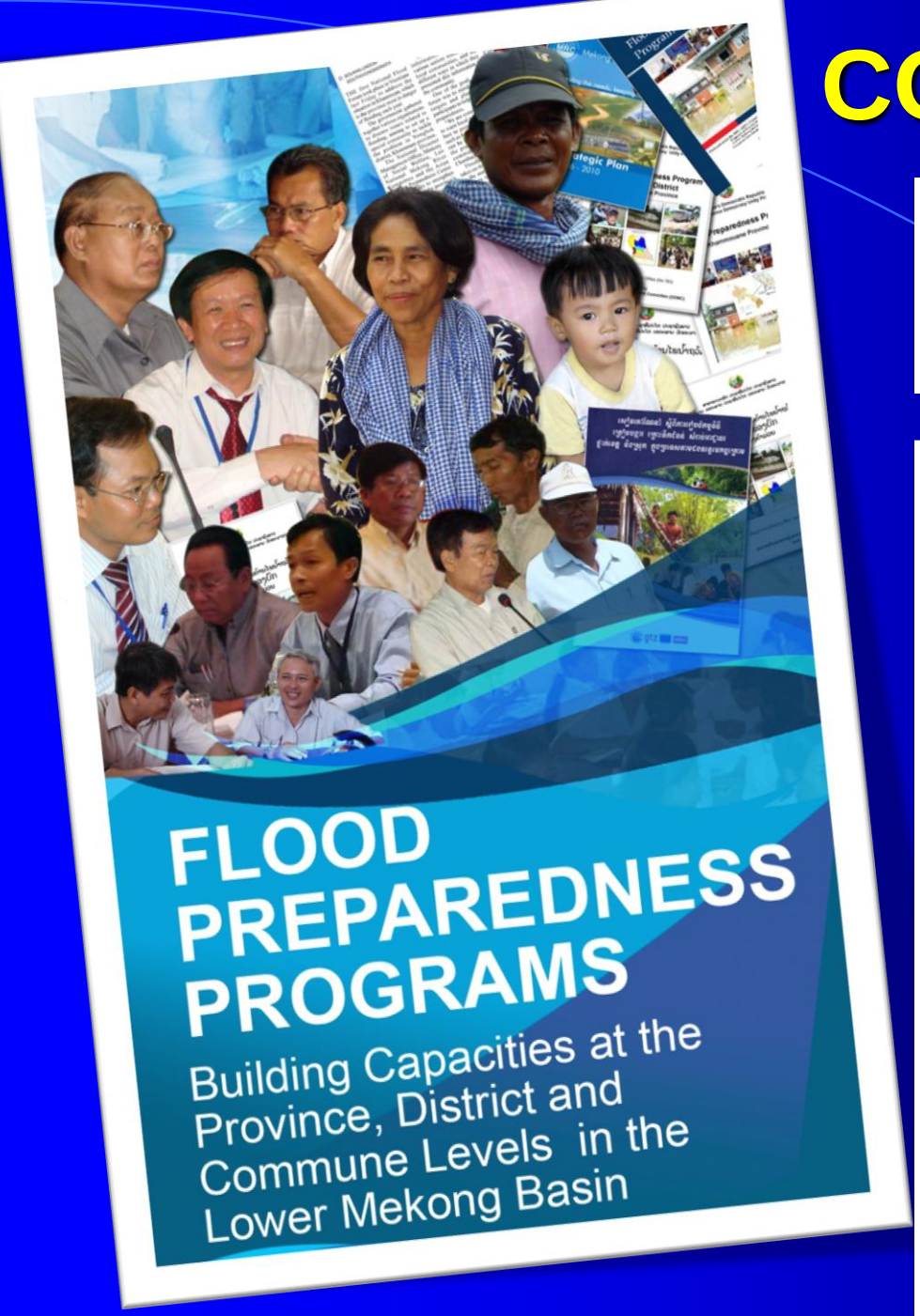
The Sha-Riva region measures about 500 x 450 sq km.

The River Shariva plays an important role, with important functions for agriculture, ecology, navigation, hydropower (upstream), etc.

The upstream county is relatively rich due to natural resources, the downstream country is relatively poor.

The Shariva River causes annual floods and flood events.

COMPONENT 4



FLOOD EMERGENCY MANAGEMENT STRENGTHENING

Core Areas of Intervention

Flood Preparedness Programs Development and Implementation

Priority Activity Implementation to facilitate Flood Preparedness and Emergency Management

Capacity Building for Flood Risk Reduction

Flood Awareness and Education

Flood Knowledge Sharing and Documentation

Integration of Flood Risk Reduction into local development planning process

Trans-Boundary (Province to Province) Joint Planning and Information Exchange

COMPONENT 5

LAND MANAGEMENT

Village Flood Information Billboard


MRC
Thank you for your attention
When the Mekong Rises
A Documentary Film on
Flood Emergency Management Strengthening in the Lower Mekong Basin
Flood Management and Mitigation Programme (FMMP)
adpc
gtz
Federal Ministry for Economic Cooperation and Development

2. Expectations FMMP 2011-2015

MEKONG RIVER COMMISSION

FLOOD MANAGEMENT AND MITIGATION PROGRAMME 2011-2015

"SUPPORT PROGRAMME"

TO

THE REGIONAL FLOOD MANAGEMENT AND MITIGATION CENTER (RFMMC)

MRC DESIGN FRAMEWORK

1. MRC Strategic Plan 2011-2015:

- Focus on MRC core functions (regional / trans-boundary responsibilities, capacity building & training, technology transfer, technical products & services)

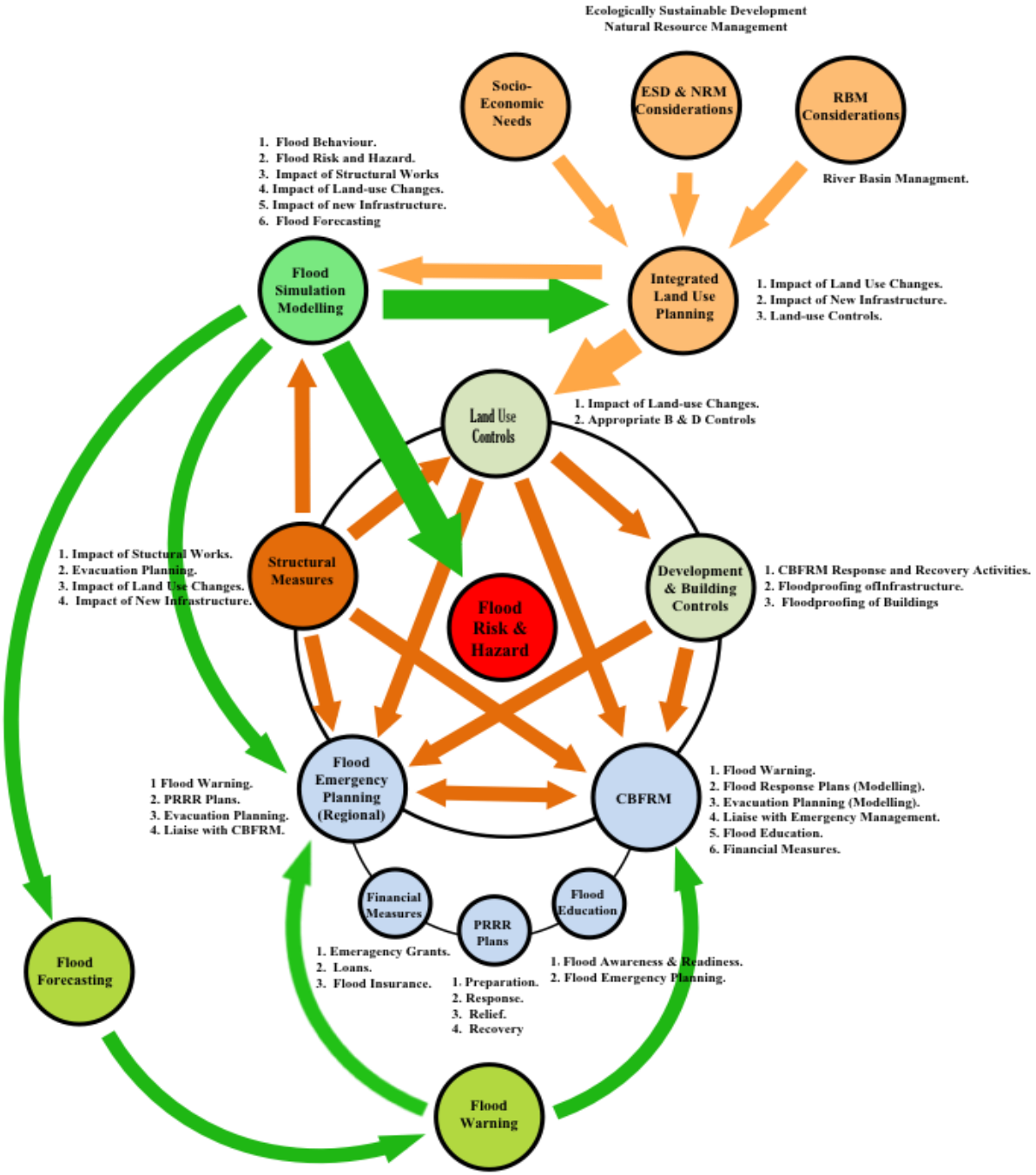
2. MRC Result Based Management System:

- No longer Outputs / Products, but Outcomes (what sustainable change did it generate?)

Classification of FMMP 2004-2010 and FMMP 2011-2015 Outputs / Products

Flood Risk Management functions, activities and Outputs / Products are:

KEY:	mandated by the 1995 Mekong Agreement, first ranked in importance
SUPPLEMENTARY:	also mandated by MA95, but ranked second
ADDITIONAL:	lie outside MA95 mandate, but are needed by the MCs



FMMP 2004-2010 and FMMP 2011-2015

support MRC Member Countries

in strengthening

Integrated Flood Risk Management (IFRM)

knowledge and skills

Mix of Measures to address Flood Risks

Best strategy depends on hydrological and hydraulic characteristics of river basin:

1. Climatology
2. Basin characteristics
3. Socio-economic conditions

Preferred solution should adopt mix of measures that are flexible:

1. uncertainty
2. resilient and adaptable to changing conditions

Upstream measures should not compromise downsteam users

Strategy	Options
Reducing Flooding	Dams and reservoirs
	Dikes, levees and flood embankments
	High flow diversions
	Catchment management
	Channel improvements
Reducing Susceptibility to Damage	Floodplain regulation
	Development and redevel-opment policies
	Design and location of facilities
	Housing and building codes
	Flood proofing
	Flood forecasting and warning
Mitigating the Impacts of Flooding	Information and education
	Disaster preparedness
	Post-flood recovery
	Flood insurance
Preserving the Natural Resources of Flood Plains	Floodplain zoning and regulation

WMO, 2009

Design and Monitoring Framework FMMP 2011-2015

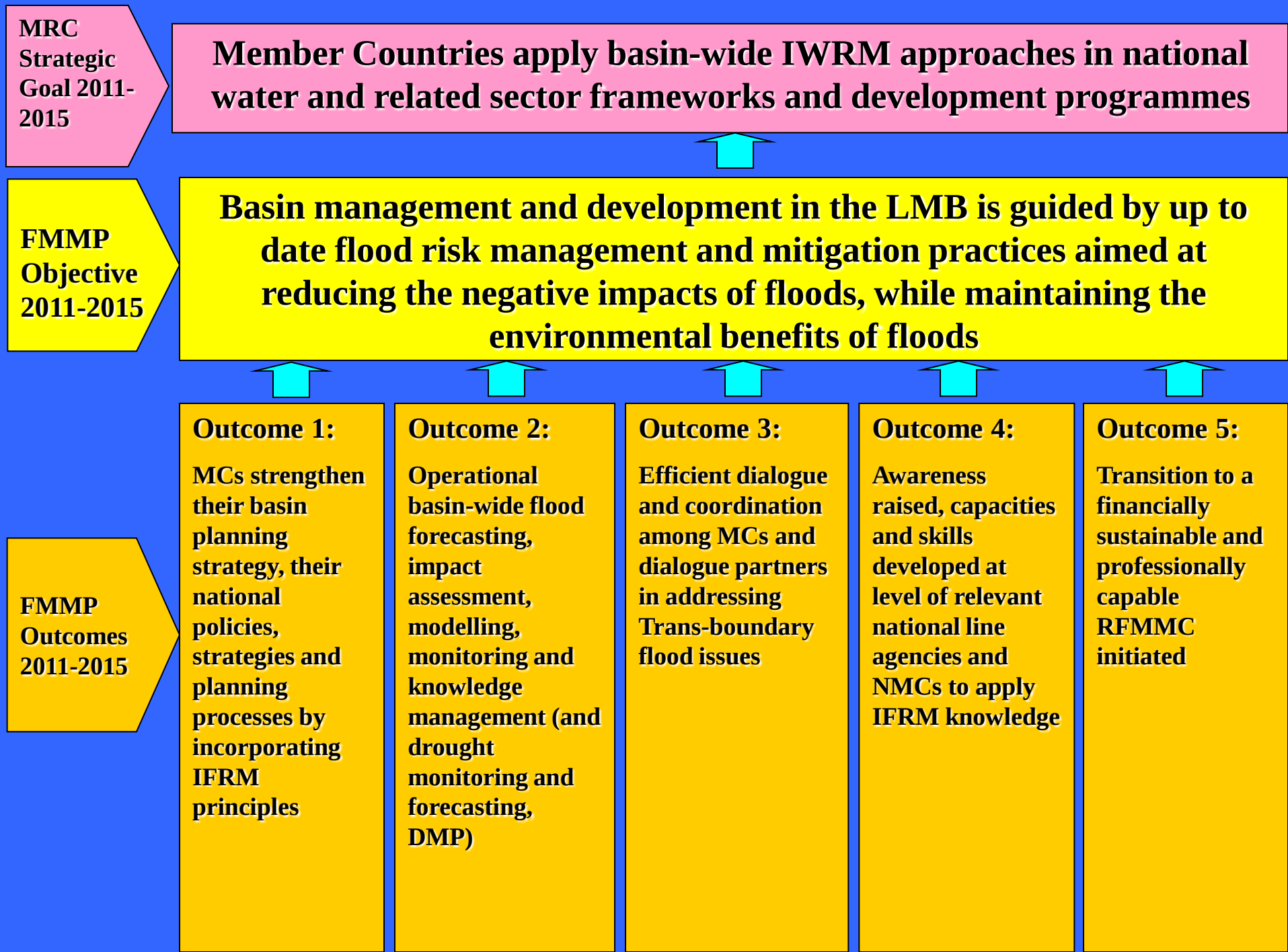
MRC Vision: A World class, financially secure, International River Basin Organization serving the Mekong Countries to achieve the Basin Vision.

Basin Vision: An economically prosperous, socially just and environmentally sound Mekong River Basin.

MRC Mission: To promote and coordinate sustainable management and development of the water and related resources of the Mekong Basin for the countries' mutual benefit and the people's well-being.

FMMP Vision: A World class, financially secure, Regional Flood Management and Mitigation Centre serving the Mekong countries to achieve the Basin Vision.

FMMP Mission: People's suffering and economic losses due to floods are prevented, minimized or mitigated, while preserving the environmental benefits of floods to contribute to the Basin Vision.


MRC Strategic Goal 2011-2015
Member Countries apply basin-wide IWRM approaches in national water and related sector frameworks and development programmes
FMMP Objective 2011-2015
Basin management and development in the LMB is guided by up to date flood risk management and mitigation practices aimed at reducing the negative impacts of floods, while maintaining the environmental benefits of floods
FMMP Outcomes 2011-2015
Outcome 1:
MCs strengthen their basin planning strategy, their national policies, strategies and planning processes by incorporating IFRM principles
Outcome 2:
Operational basin-wide flood forecasting, impact assessment, modelling, monitoring and knowledge management (and drought monitoring and forecasting, DMP)
Outcome 3:
Efficient dialogue and coordination among MCs and dialogue partners in addressing Trans-boundary flood issues
Outcome 4:
Awareness raised, capacities and skills developed at level of relevant national line agencies and NMCs to apply IFRM knowledge
Outcome 5:
Transition to a financially sustainable and professionally capable RFMMC initiated

FMMP Outcomes 2011-2015

Outcome 1:

Output 1.1:

IWRM basin development planning process and related regional and national policies and strategies are strengthened by IFRM principles.

Output 1.2:

IFRM principles incorporated in flood prone areas strategies and management plans.

Output 1.3:

National planning processes reflect IFRM principles.

Outcome 2:

Output 2.1:

Monitoring, data collection, dissemination and sharing of data and information year-round routinely applied between RFMMC and MCs.

Output 2.2:

Flood simulation models being used RFMMC and MCs.

Output 2.3:

Highly responsive river flood and drought forecasts and warning, flash flood guidance and alerts in operation for MCs and other stakeholders.

Output 2.4:

Impact of climate change on short and long term flood and drought forecasting and climate change adaptation systemized in RFMMC and MCs.

Outcome 3:

Output 3.1:

MCs use administrative and technical tools to address TB flood issues, Differences and Disputes.

Output 3.2:

Pilot studies on TB flood issues, differences and disputes implemented.

Outcome 4:

Output 4.1:

MCs awareness, capacities and skills enhanced in IFRM.

Output 4.2:

IFRM knowledge exchanged and applied in MCs.

Output 4.3:

Knowledge on addressing TB flood issues, Differences and Disputes embedded in MCs.

Outcome 5:

Output 5.1:

Roadmap for the RFMMC.

Output 5.2:

Key functions secured by riparian staffs.

Output 5.3:

RFMMC regionally recognized.

FMMP Outputs 2011-2015

15 FMMP 2011-2015 Outputs/Products logically arranged under 5 Activity Groups

1. Implementation of IFRM Principles in the LMB
2. Collection, Management and Use of basin-wide flood related Data and Information
3. Management of Trans-boundary Flood Risks
4. Increasing IRFM Awareness and Capacity
5. Administrative Changes to RFMMC

BUDGET REQUIREMENTS FOR 2011-2015

1. Current Comprehensive Budget for performing the present Routine Functions of the RFMMC:

   USD 3.3 M

2. Development Budget for enhancement of Capacities and improvement of Products & Services of the RFMMC:

   USD 8.7 – 11.7 M

Total external funding needs: USD 12 - 15 M

3. Workshop Challenges

BROAD QUESTIONS

- How to develop leverage for FMMP 2011-2015 with the FMMP 2004-2010 products produced, knowledge and skills built?

- Way forward with “people centered” approaches?

Useful Responses for FMMP (1)

1. How to mainstream Flood Information for improved Land Management at National level?

2. How to mainstream Flood Preparedness and Emergency Management at National level?

3. How to sustain systems (i.e. annual updating of FPPs at particularly Province and District levels) in future?

Useful Responses for FMMP (2)

4. What is in your view the particular strength of the Regional level in supporting “peoples centered” approaches towards FP&EM at District and Commune levels?

5. How to effectively integrate the capabilities of Disaster/Flood Risk Reduction at Regional scale with those of the National, Provincial and District scales?

6. What specific role in the field of DRR/FRR would you assign to the Regional level in order to (be able to) effectively facilitate the National, Provincial and District levels?


Thank you for your attention