

# Transboundary Flood issues: (1) Regional Flood Forecasting-dreams <u>slowly</u> becoming reality!





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### Two major transboundary river systems

- 1. Ganges Bhramputra-Meghna River system:
- =>Focus on flood forecasting only
- 2. Mekong River System
- => Focus on flood management including forecasting





# Concepts and requirements of a Regional Flood Forecasting Centre

### Many models:

- 1. Do every thing (un-realistic)
- 2. Conduct only meetings and seminars (100th AFF)!
- 3. Only mainstream forecasting (limited use)
- 4. Coordinated role with national forecasting centres

## Regional Forecasting: Useful and achievable

•IFF the basic data of catchment, rivers, floodplain, structures and their operation is available

•IFF data collected and communicated in time (rainfall, Water level, flow)

•IFF Flood forecast and warning disseminated in time and to the right people



### **Technology & Cooperation**

### **Technology:**

**Data:** Collection and compilation of data:

Basin data (topology): basic and timely update

Meteorological, hydrological data (real time, high frequency)

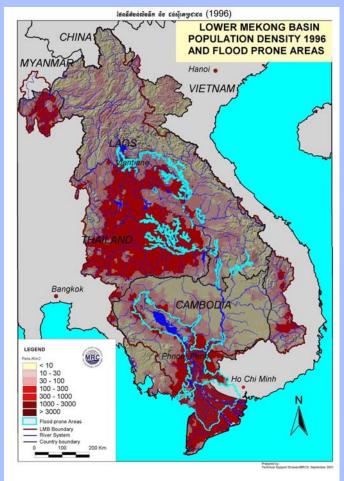
ICT for data transmission and dissemination

**Modelling** to forecast floods in rivers and floodplains

Internet to facilitate the whole thing

Cooperation: MRC, AFF, WMO, ....., ....

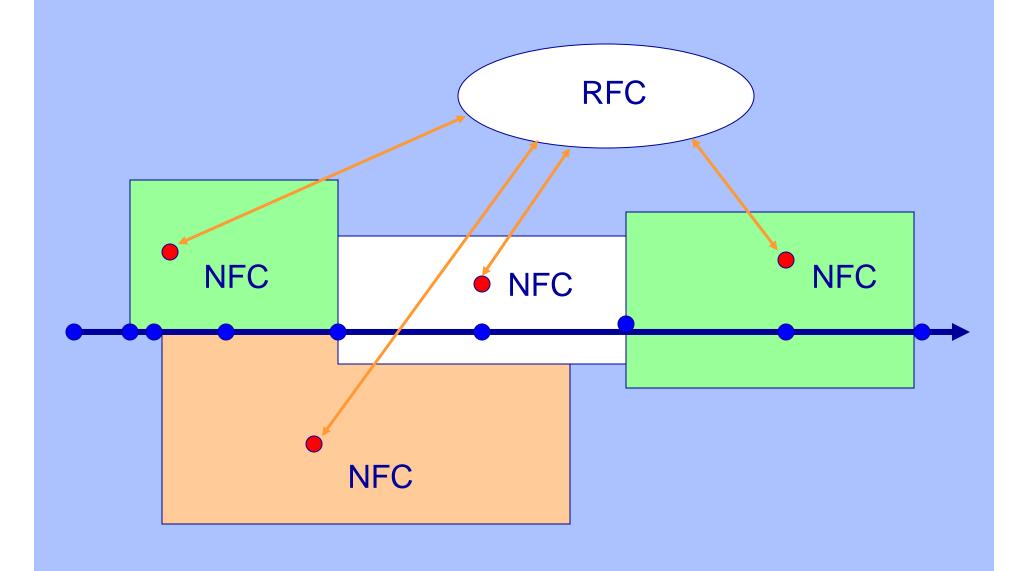
### Suggested flood forecasting system for the Lower Mekong River





Fully operational regional and national forecasting and warning systems

### A viable regional flood forecasting system



### Fully Developed National flood Forecasting and Warning Centre (NFC)

Collecting real time data within national territories and from the mainstream

**Sharing data and forecasts with the RFC** 

Capable of running the regional flood model to generate boundary conditions for the national model (Web based modelling)

Providing useful and effective flood warning <u>is</u> the mandate & responsibility of NFC (not of RFC)

# Fully Developed Regional Flood Forecasting and Warning Centre (RFC)

Collecting real time data from the whole basin

Maintaining and operating a regional flood model

**Providing regional flood warnings** 

Sharing data and forecasts with the NFCs

Providing updated technological support (data collection, transmission, modelling, warning dissemination) to NFCs.

Example of a dream: www.southasianfloods.org

Establishment of regional flood information exchange:

### WMO+ ICIMOD initiative

(including a Hindukush Himalayn HYCOS)

(India, Bangladesh, Bhutan, Nepal, China, Pakistan)

from May 2001 to-date: 9 meetings, next one in May 2005.

# Fully Developed Regional Flood Centre (RFC) dealing with other flood issues:

In similar lines of regional forecasting and warning, a regional flood centre can play a key role in solving other flood related issue.





COMMUNICATION IS THE KEY TO SUCCESS...
PASS IT ON.

Thank you