



Legal and Institutional Aspects of Integrated Flood Management


WMO/GWP Associated Programme on Flood Management (APFM)



World Meteorological Organization





Global Water Partnership



About this Presentation

This presentation:

- Deals with Legal and Institutional Aspects of IFM
- Provides a rational way of addressing legal issues in flood management
- Aims at promoting understanding of issues of common interest for flood managers and lawyers/legislators

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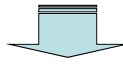


Flood Plains

Positive aspects: preferred places for socio-economic activity due to development potentials

- Easy access to natural resources
- Fertile land for agriculture
- Services provided by ecosystems

Negative aspects: areas recurrently affected by flooding



In the traditional flood management approach this has mostly lead to the adoption of flood control and protection works (e.g., dams, embankment, diversion works, etc.)



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What is Integrated Flood Management?

- A development policy concept
- Flood management in the context of Integrated Water Resources Management (IWRM)
- Aims at **maximizing the net-benefits** derived from flood plains and **minimizing losses of life** from flooding



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What are Net-Benefits from Flood Plains?

Benefits derived from using the flood plains, such as increased crop yields in agriculture, opportunities for subsistence/recession agriculture, available space for development, readily available transport links etc.

Minus

Losses suffered from flood damages and economic losses due to floods (*)

(*) Human losses of life, biodiversity losses or losses of cultural heritage are not sufficiently quantifiable in economic terms but co-determine our policy options.

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Why Integrated Flood Management?

- Need to address new challenges
- Need for a sustainable development and livelihoods perspective in flood management
- Need for policy options with a focus wider than only economic loss reduction
- Need for a multi-disciplinary and multi-sectoral approach in flood management
- Need for a river basin approach in flood management

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Law: Definition

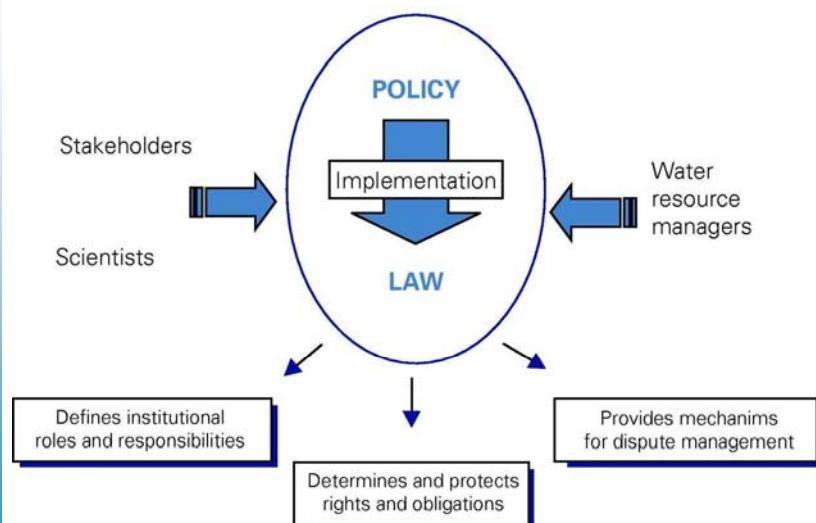
“Is a set of rules or norms of conduct which mandate, proscribe or permit specified relationships among people and organizations, provide methods for ensuring the impartial treatment of such people, and provide punishments for those who do not follow the established rules of conduct.”

Source: Wikipedia

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Roles of Law in Flood Management

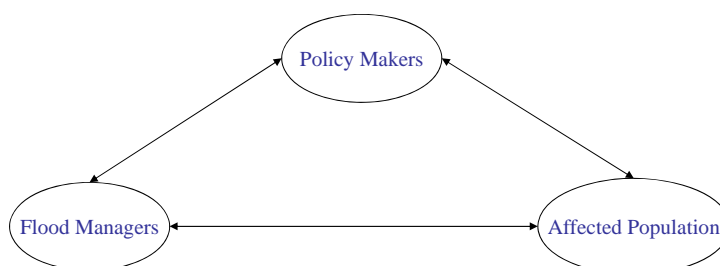


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Role of Flood Managers

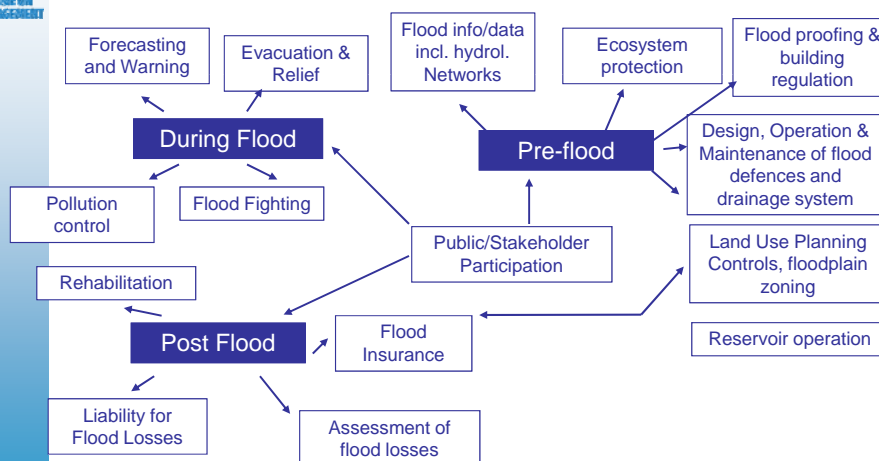
- Implement flood management policies within the given legislative framework
- Inform policy-making and legal reform processes about the realities of flood management



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Overview of functions in IFM



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Central Legal Themes in IFM

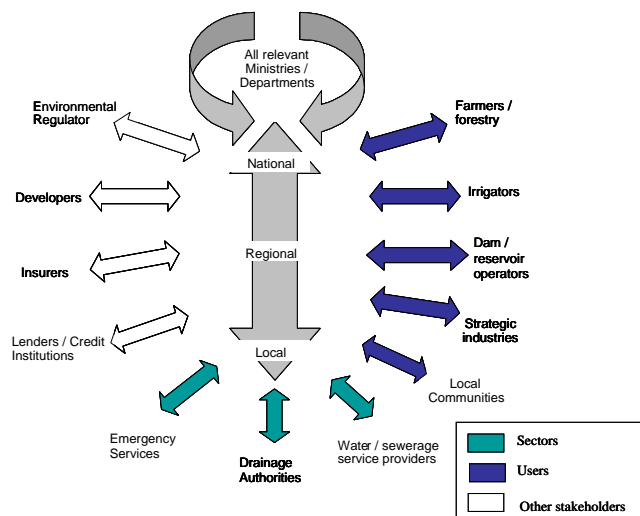
- Ensuring coordination and integration across institutional boundaries
- Information generation and sharing
- Enabling stakeholder participation
- Rights, powers and obligations

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Ensuring coordination and integration

The challenge of integrating national public planning processes



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Ensuring coordination and integration (cont.)

Example Land use planning controls:

- Flood hazard identification (hazard maps)
- Regulated development of flood plains (spatial planning/ land use legislation)
- Introduction of flood risk assessment to development activities (urban, forestry, agriculture)
- Flood proofing of structures (building codes)
- Guidance on best practice for agriculture
- Regulation through incentives and disincentives (insurance)



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Information generation and sharing

- Creating institutional mandates and obligations for information generation
- Mandating relevant institutions to exchange data in necessary quality and timeliness
- Exposing plans, strategies, programmes and projects to public scrutiny
- Linking information to intended uses in
 - Preparedness planning (hazard, exposure and vulnerability information)
 - Emergency response (forecasting, warning, flood fighting, evacuation etc)

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Information generation and sharing

Example: Flood Forecasting and Warning

- Define responsibilities for provision of flood forecasting, warning and emergency response
- Rights of access to relevant data and ensuring their availability (basin wide)
- Obligatory broadcasting of flood warnings on the mass media
- Liability issues in cases of failure (warn too late, inaccurately or where no warning is required)



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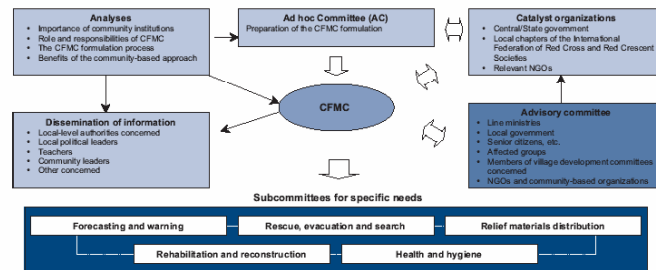
Enabling stakeholder participation

- Granting rights of access to adequate information to the public for informed decision-making
- Institutionalizing community participation in flood management activities on the local level
- Providing for flood preparedness of the population (e.g. emergency drills)



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Enabling stakeholder participation – Example of CFMC



Functions provided by CFMC

<p>Assessing the needs and capability of the community</p> <ul style="list-style-type: none"> Mapping of resources and services available at the local level Mapping of a detailed inventory of social infrastructure A local-level flood risk map 	<p>Raising awareness</p> <ul style="list-style-type: none"> Increasing the community's capacity to manage floods Organizing appropriate training activities Information dissemination Workshops at appropriate local levels 	<p>Training and capacity-building</p> <ul style="list-style-type: none"> Training for flood preparedness Training for flood response activities Training on post-flood rehabilitation and reconstruction activities Drills 	<p>Planning and interface with government institutions</p> <ul style="list-style-type: none"> Certain key structural interventions Removal/reduction of drainage congestion and river training Emphasis of non-structural measures Dialogues with community members for awareness building and assigning responsibilities along with finalization of the plan Multi-purpose flood shelter at a higher ground Flood escape route
<p>Making provisions for emergency situations</p> <ul style="list-style-type: none"> Pre-flood management operations During-flood management operations Post-flood management operations Rehabilitation Identification of priority 	<p>Managing information for future reference</p> <ul style="list-style-type: none"> Information related to what had been done with what success and failures collected from previous floods Relevant information on forecasting and warning Information on the damages and losses caused by individual floods Record of all flood events and associated damages and losses caused together with the activities conducted by CFMC 	<p>Networking, monitoring and reporting</p> <ul style="list-style-type: none"> List of organizations that conduct community-based flood management activities in particular areas List of all local or locally working regional/national institutions Monitoring of the implementation of various tasks it has initiated at all levels (pre-, during- and post-flood situations) 	<p>Resource mobilization</p>

Rights, powers, obligations

Must be appropriate for functions to be carried out.

- E.g. agency responsible for maintaining infrastructure will need access rights
 - Is there corresponding right of compensation for property owners?
- Does flood management agency have right to destroy flood defences incompatible with flood plan?



Recent legal reform related to flood management on the national level

- South Africa
 - National Water Act 1998
 - Disaster Management Act 2002
- France
 - Law on Natural and Technological Risks 2003
- India
 - Disaster Management Bill 2005
- Germany
 - Act to Improve Preventive Flood Control 2005
- United States
 - WARN Act 2006

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Regulating bi-and multi-lateral cooperation in shared basins

- Required for
 - improved planning and response
 - loss reduction
 - conflict prevention
- Should be based on relevant international legal principles
 - Law of international Water Courses (UN 1997 and UNECE 1992)
 - Draft model provisions UNECE 2006
 - Related international (environmental) law
 - Soft law (Helsinki Rules, ILA and ILC work)
 - Treaty practice and Case Law

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Key Considerations for International Water Courses

- IFM as part of wider legal frameworks for protection and utilization of int. water courses
- Reconciliation of conflicting interests through principle of “Equitable and reasonable utilization”
- Procedural rules for
 - Exchange of data and information
 - Public participation
 - Dispute settlement
 - Specifying the role of joint institutions

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Basic Principles

- Equitable and reasonable use
- No significant harm
- Precautionary principle

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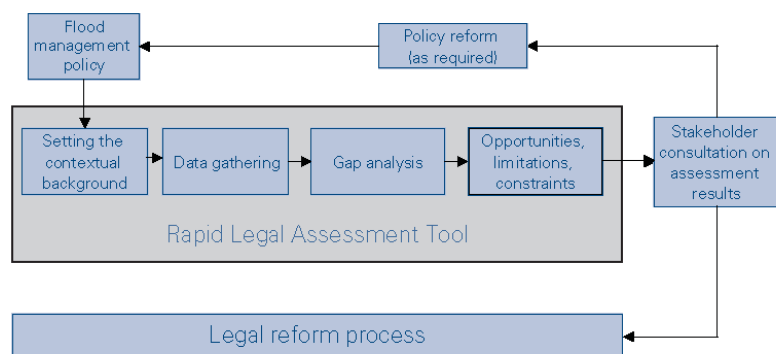
The European Example

- „Floods Directive“ adopted by the EC Sept 2007
- Framework for the reduction of risk to human health, the environment and economic activity associated with floods in the Community
- Main elements:
 - Preliminary flood risk assessment
 - Flood risk maps and Flood risk management plans for river basins, sub basins or stretch of coastline for which it is concluded that potential significant flood risks exist or might reasonably be considered likely to occur.

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Sound analysis as a basis for reform: The Rapid Legal Assessment Tool



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A word on politics

- Political windows of opportunity after floods
- Considering the transboundary level as an option to add value to flood management
- Experts and practitioners to be prepared with a balanced approach before the flood



Photo by David Saville / NEMA News Photo

Photo by Jerry Ryan / USGS

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Concluding Remarks

- Provisions to be mainstreamed into a broad range of sectoral legislation on all administrative scales
- Due consideration of enforceability
- Issues of wider sustainability to be mainstreamed into flood policy and legislation
- Policy, legal and institutional arrangements to be harmonized and flexible enough to provide for changing environment
- Legislative arrangements to be complemented by other available mechanisms (economic, social and cultural)

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Further Reading

- IFM Concept Paper
- IFM Legal and Institutional Aspects
- Case studies: Flood Management and Law in India, Japan, Serbia and Switzerland
→ <http://www.apfm.info/publications.htm>
- National Laws and International Instruments (see Flood Management Reference Centre)
→ http://www.apfm.info/database_policy.htm



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For more information please visit

<http://www.apfm.info>

Thank you !

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