



Better Governance:

Inclusive Approach  
through good practices  
on water governance and IWRM

# *River Basin Flood Management*

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# Guiding Policies on Flood Management: Philippine Development Plans

- ❖ **Flood management is considered as one of the concerns of Integrated Water Resources Management**
- ❖ Formulation of Master Plan for flood control program adopting the principle of management and river basin approach
- ❖ Provision of infrastructure in flood disaster prone areas and pursuit of non-structural measures to mitigate floods such as flood forecasting and warning system, evacuation plan, hazard mapping, reforestation
- ❖ Establishment of database on river information including existing flood control and drainage structures

# Investment for Water Infrastructure: Flood Management

## Performance Governance System of the Department of Public Works & Highways

Outcome

Lives & properties protected from natural disasters



Mitigate Flood Damage in River Basins



Output

Build Disaster Resilient Structures in Calamity-Prone Areas



River Basin Master Plan



# Investment for Water Infrastructure: Flood Management

- Flood Risk Assessment Study assisted by Japan International Cooperation Agency as basis for a rational investment scheduling and budget requirements
- Identified 120 priority principal (drainage area of > 40 sq.km) river basins
- Study prioritized 56 priority river basins for completion of projects with indicative costs (2011-2034)

## Strategy Map: 2016-2022

- Complete master plan and feasibility study of 120 principal rivers until 2022
- Implementation of flood control projects according to the master plan



# Master Plan of Flood Control and Drainage Projects in a River Basin

- Flood control policy, strategy, target design flood magnitude, river improvement works
- Alternative flood mitigation measures, and effective water infrastructure based on Integrated Water Resource Management principles
- Non-structural measures such as flood hazard mapping, land use control, flood forecasting and warning, solid waste management, watershed management, etc. for flood disaster risk reduction and management
- Projects based on technical, economic, social and environmental feasibility



# Master Plan of Flood Control and Drainage Projects in a River Basin

- Review available data, reports
- Field reconnaissance of the study areas
- Basic Analyses (rainfall, runoff, flow capacity, flood inundation and damage, etc)
- Development of River Improvement Plan
- Environmental, Social and Economic Analyses
- Feasibility Analysis
- Other policies/strategies: Climate Change, Gender Concerns

# Divergence-Convergence Process for Stakeholders Involvement in Decision Making

IWRM Planning Guidelines <sup>1</sup>		River Basin Master Plan for Flood Control and Drainage Projects
Inception	Setting the boundary conditions for the analysis	River basin, river channels, flood prone areas
Situation Analysis	Assessing the present and future water resources issues	Design flood alternatives (1/50 yr. flood, 1/100 yr. flood, etc.)
Strategy building	Developing alternative strategies for decision making	Alternative measures: Structural and non-structural measures
Action Planning	Planning of tasks, schedules, and resource requirements	Feasibility study, priority projects
Implementation	Execution of identified tasks; including monitoring and consultation	Project implementation according to master plan

<sup>1</sup> Philippines: Planning Guidelines Establishing IWRM, April 2016



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*Thank you for your attention!!!*