

Water Policy in Korea "Toward IWRM"

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Contents

Background

Water Resources in Korea

What's Policy and IWRM?

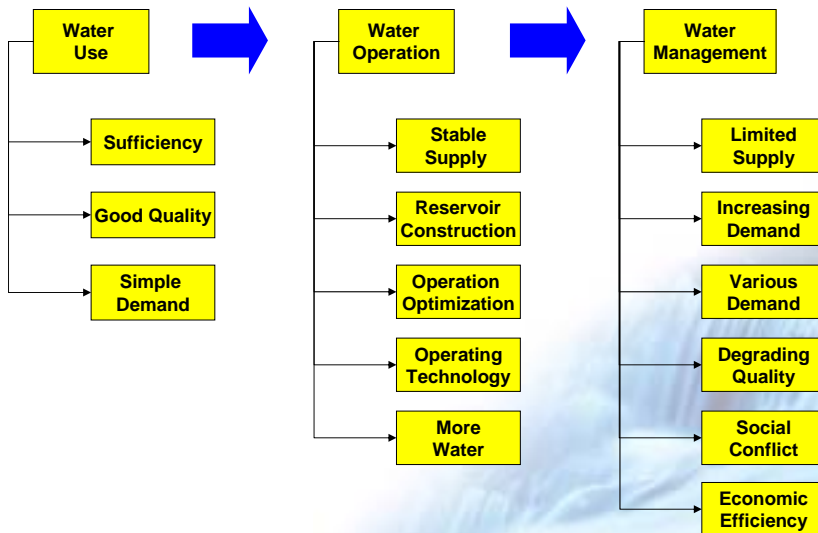
Current Works towards IWRM

Conclusions

Background

3

1. Changing Paradigm



4

2. Social Cost & Conflicts

1. Distorted Water Cycle System

- Demand and Supply
- Water Quality
- Increasing Flood

2. Social Conflicts between Water

- Among Water Sectors
- Among Regions

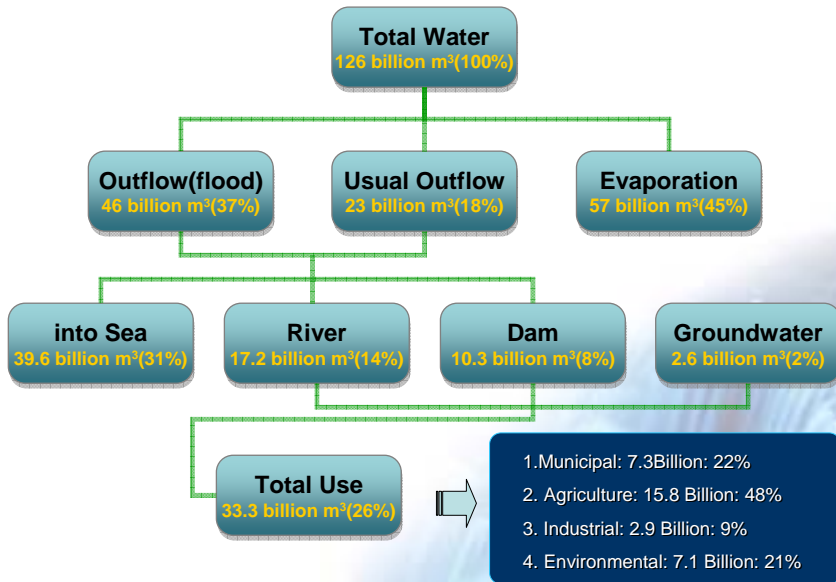
3. Increasing Social Cost of Water Management

5

Water Resources in Korea

6

1. Amount of Water in Korea



7

2. Water Quality in Korea

1. Concentrated Discharge

- Fast Economic Growth
- Population Growth

2. Lack of Treatment Facilities

- 2,618,000m³ of Waste Water
- Only 50 ~ 55% Capacity to Treat

3. Lack of Enforcement

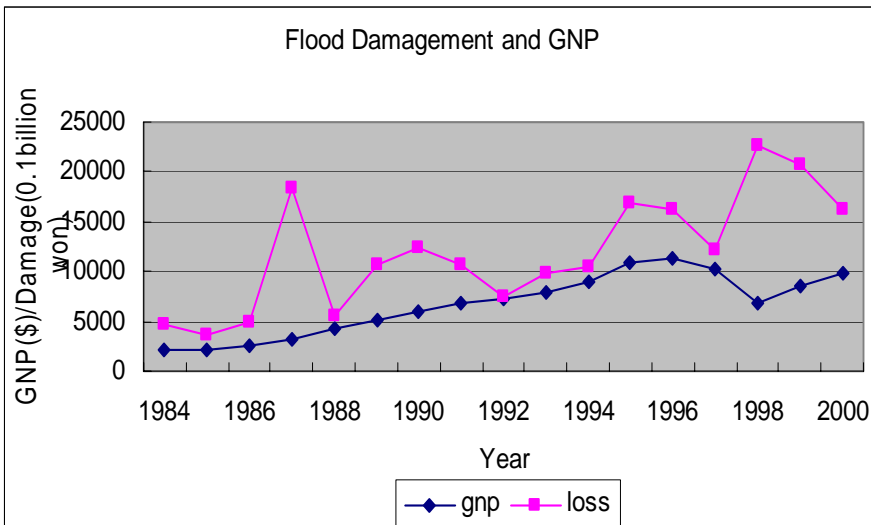
- There is a Law, but no enforcement
- No Comprehensive Institutional Framework

4. In Recent.....

- Special Law for 4 Major Rivers and Reservoir
- New Approach based on River Basin instead of Regional Base

8

3. Flood in Korea

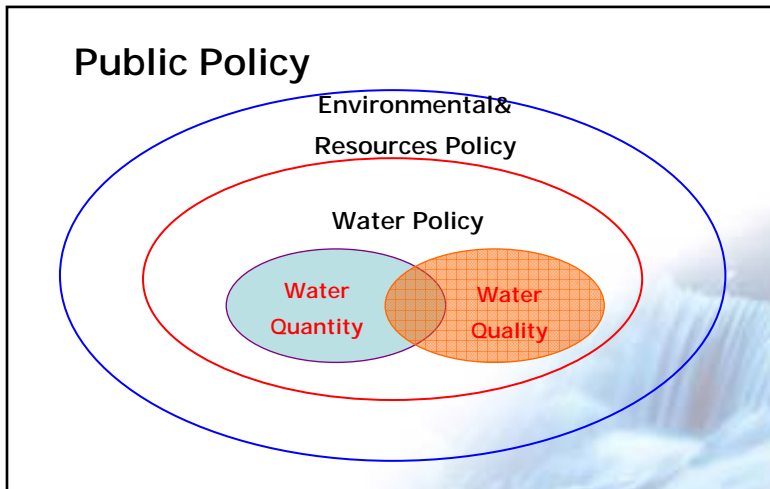


9

What's Policy & IWRM ?

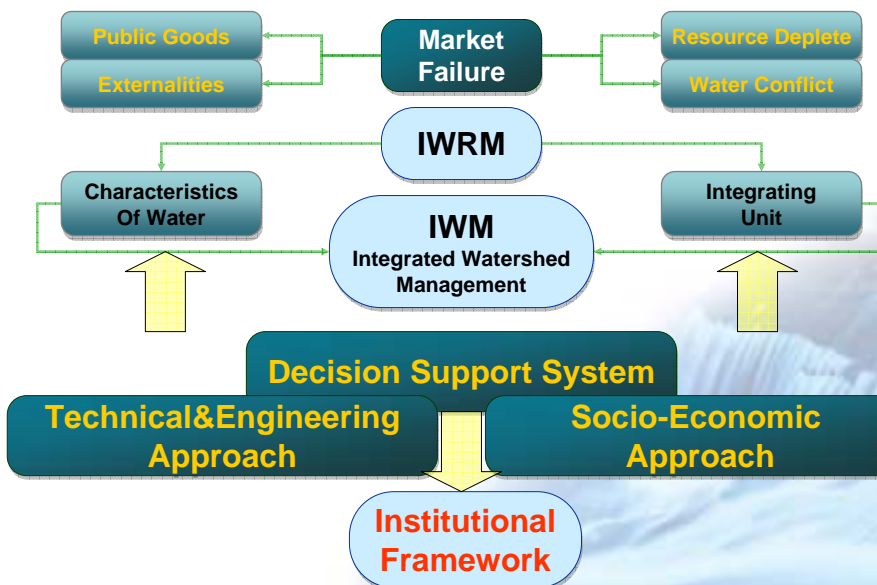
10

1. What's Policy ?



11

2. What's IWRM ?



12

2. What's IWRM ?

1. IWRM

- Gaining Momentum Last Few Years
- Sustainable Resource Management System

2. Integrating...What?

- All issues related with water
- What is the Sustainable Level of Integrating?

3. Identification of Current Problem

- Social and Economic Factors
- Characteristics of water

13

3. Sustainability in IWRM

■ What is “sustainability”?

- “The ability to maintain the necessary level and duration of operational activity to achieve military objectives.” (JP 1-02)
- ...the capacity for continuance into the long term future

■ Sustainability and the “Triple Bottom Line”

- Mission
- Community
- Environment

■ However, Nobody talks about the “LEVEL” of sustainability

14

3. Level of Sustainability

■ Environmental Economics

- Very weak sustainability
 - K_m, K_h, K_n : completely substitutable
 - K_c : non-existent
 - Sustainability achieved if $K = 0$
- Weak sustainability
 - K_m, K_h, K_n : partially substitutable
 - K_c : exists and should be preserved unless opportunity costs are too high
 - Sustainability achieved if $K = 0$ and $K_c = 0$ unless opportunity costs are too high

K_m (man-made), K_h (human), K_n (nature), K_c (cultural capital)

15

3. Level of Sustainability

■ Strong sustainability

- K_m, K_h, K_n : partially substitutable
- K_c : exists and should be preserved
- Sustainability achieved if $K = 0$ and $K_c = 0$

■ Very strong sustainability

- K_m, K_h, K_n : perfectly complementary
- Sustainability = stationary-state economy,
- moral/ethical capital $= 0$

16

4. Decision making

- There is a Path Dependency
- However case study is just a good experiences
- And, it is not a solution of your country
- Level should be decided based on
 - socio-economic circumstances
 - political situations
 - amount of natural resources
 - educational system

Km(man-made), Kh(human), Kn(nature), Kc(cultural capital)

17

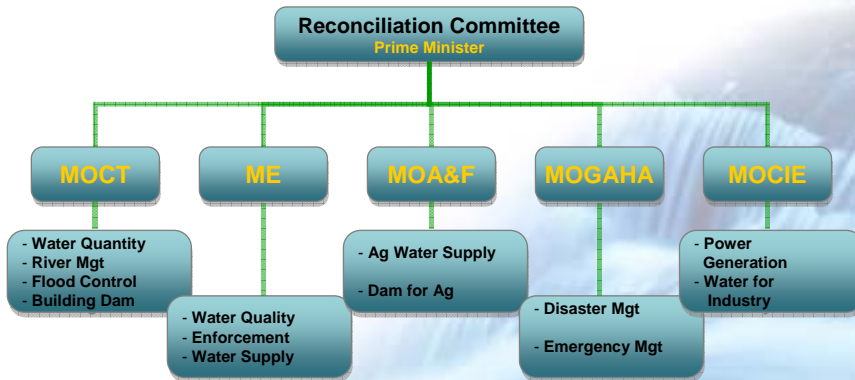
Current Works toward IWRM



18

1. Problem Identification

- To Implement IWRM
 - Institutional Framework
 - Integrated National Plan
 - Common Goal and Action plan



19

2. National Level

- PCSD (Presidential Commission on Sustainable Development), ('05.10.19)
 - Policy Objectives
- Building Sound Water Cycle for both Human and Nature
 - Three Strategies



Based on Demand Management
Seek Water supply Security



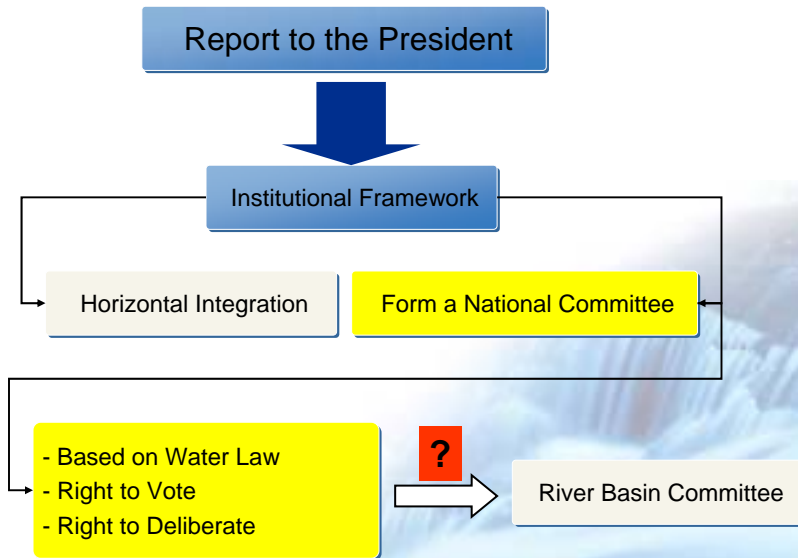
Holistic Approach for Quality & Flood
Restoration of River Eco-System



Participation of Stakeholders
Water Management with Check and Balance

20

2. National Level



21

3. Regional Level



22

3. Regional Level

1. Ahnyang River

- The First Branch of the Han River
- The Second Biggest River of Han River
- Total River Basin: 288km²

2. Current Status

- Economic Development Deteriorated Water
- Foundation of "Water Quality Counterplan Council: WQCC
- Ahnyang River Restoration Network: NGO Group of River Basin
- WQCC has only little power to control River Basin

23

3. Regional Level

1. Institutional Framework: WQCC

- The Corporation of 13 Cities and District
- Participation of Citizen Group
- Independent Body for the Decision Making

2. Appropriate Financial Plan

- No Guaranteed Budget
- Most of the Finances are allocated based on Administrative Unit
- Systematic Funding by Various Sources

3. The Support of Central Gov't

- Set Legal & Institutional Framework
- Participation Process of Decision Making
- Enforcement of Written Regulation

24

Conclusions

25

Conclusions

1. Need to Establish its Own Concept

- Different Characteristics of Water
- Different Institutional Framework
- Different Social Background

2. Decide the Level and Unit of Integration

- Central or Regional Level?
- Including Administrative Body?

3. Starting with a Small Watershed

- Easy Assessment
- Less Risky
- Easy Operation

26

KOWACO

- Only One Water Wholesaler in Korea: Gov't Investment
- Leading Company for National Water Management
- International Investment & Education with Advanced Technology

