

Sustainable Water Resource Management Framework: IWRM in Korea

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KOWACO

Network of Asian River Basin Organizations
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My Presentation

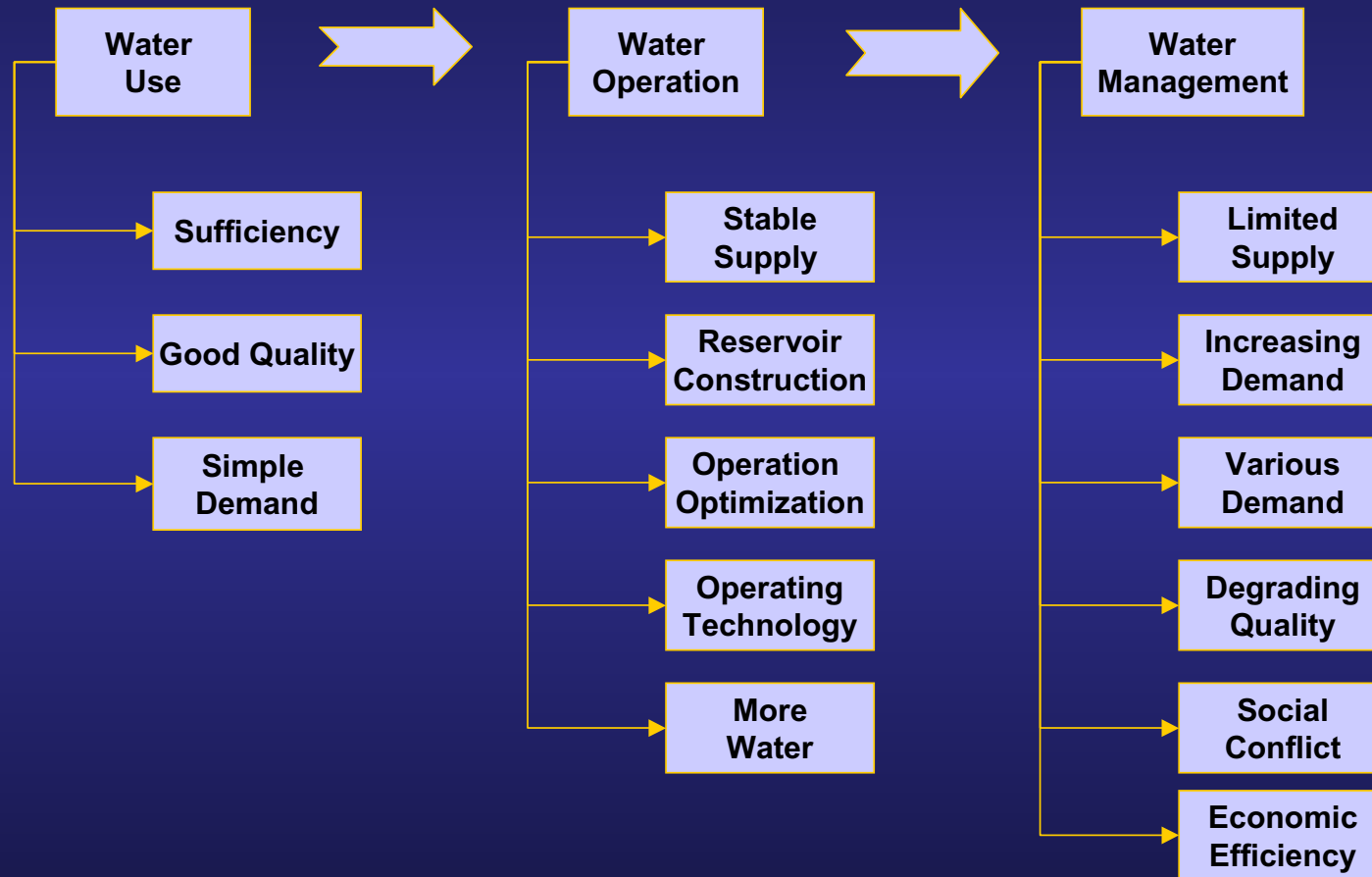
I . Background & Objectives

II . Water Resources in Korea

III . IWRM and IWM in KOREA

I . Background & Objectives

Background



Objectives

Assessment of Water Environment IN Korea

- Analyze the Current Situation of water in Korea
- Identify Problems

Understanding the Concept of IWRM and IWM

- Sustainable Level of IWRM in Korea

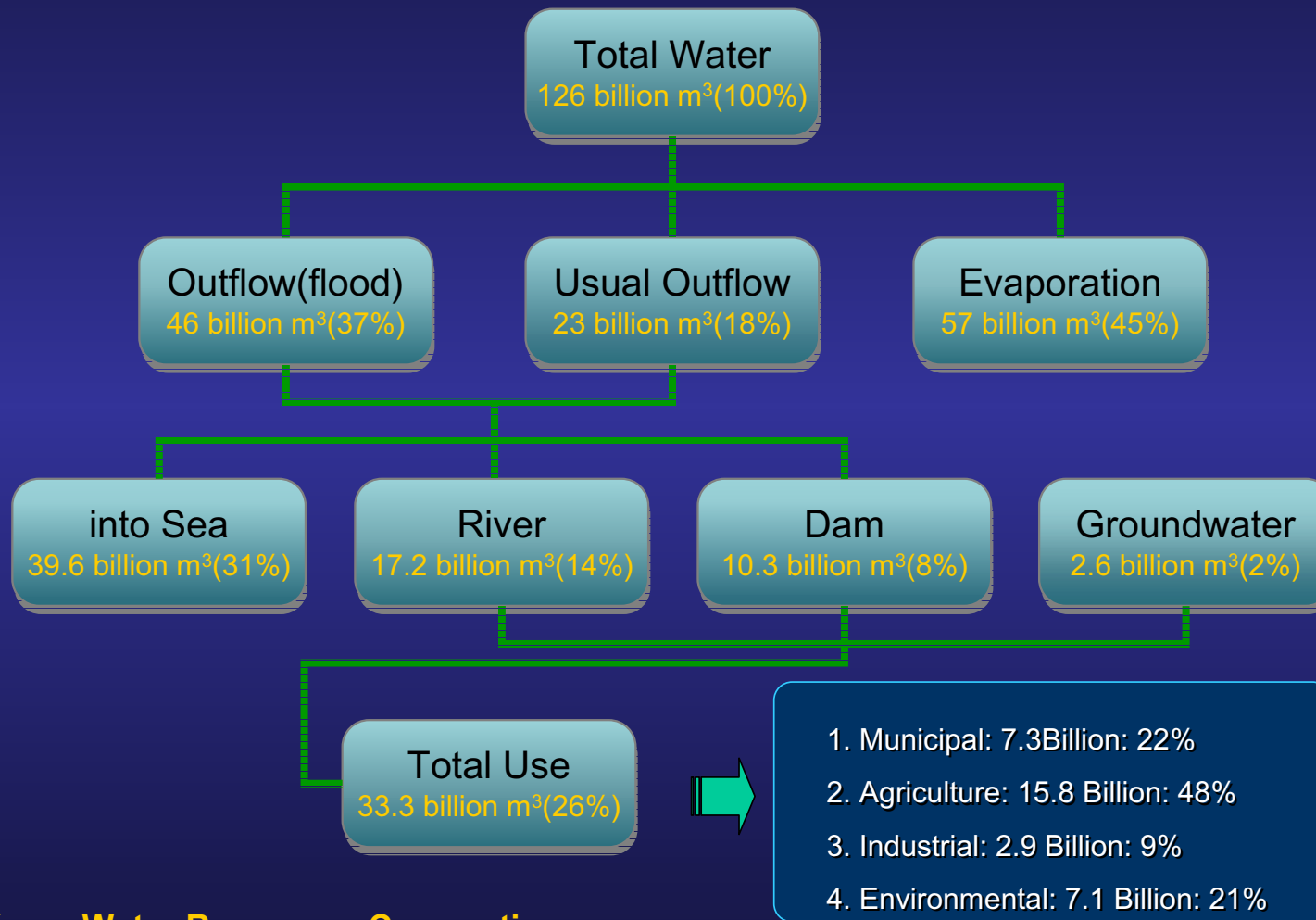
Finding Suitable Way of Implementation

- The Unit of IWRM
- Guideline Establishment

Ⅱ . Water Resource in Korea

1. Amount of Water
2. Water Quality
3. Flood Control
4. Institutional Framework

Amount of Water in Korea



Amount of Water in Korea

Water Deficiency

- Increasing Absolute Amount of Water
- Conflict by Region and Sector
- Estimated Amount of Deficiency: 1.8 billion tons by 2011

Task Force

- Ministry of Construction & Transportation: Dept. of Water Resource
- Sustainable Water Resource Research Center
- All other Related Gov't and NGOs

Water Quality in Korea

Polluter: Sewage Water



Polluter: Animal Industry



Polluter: Industrial Waste



So..What Happen?



Korea Water Resources Corporation
Water Resource Research Institute

Water, Nature and Human

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

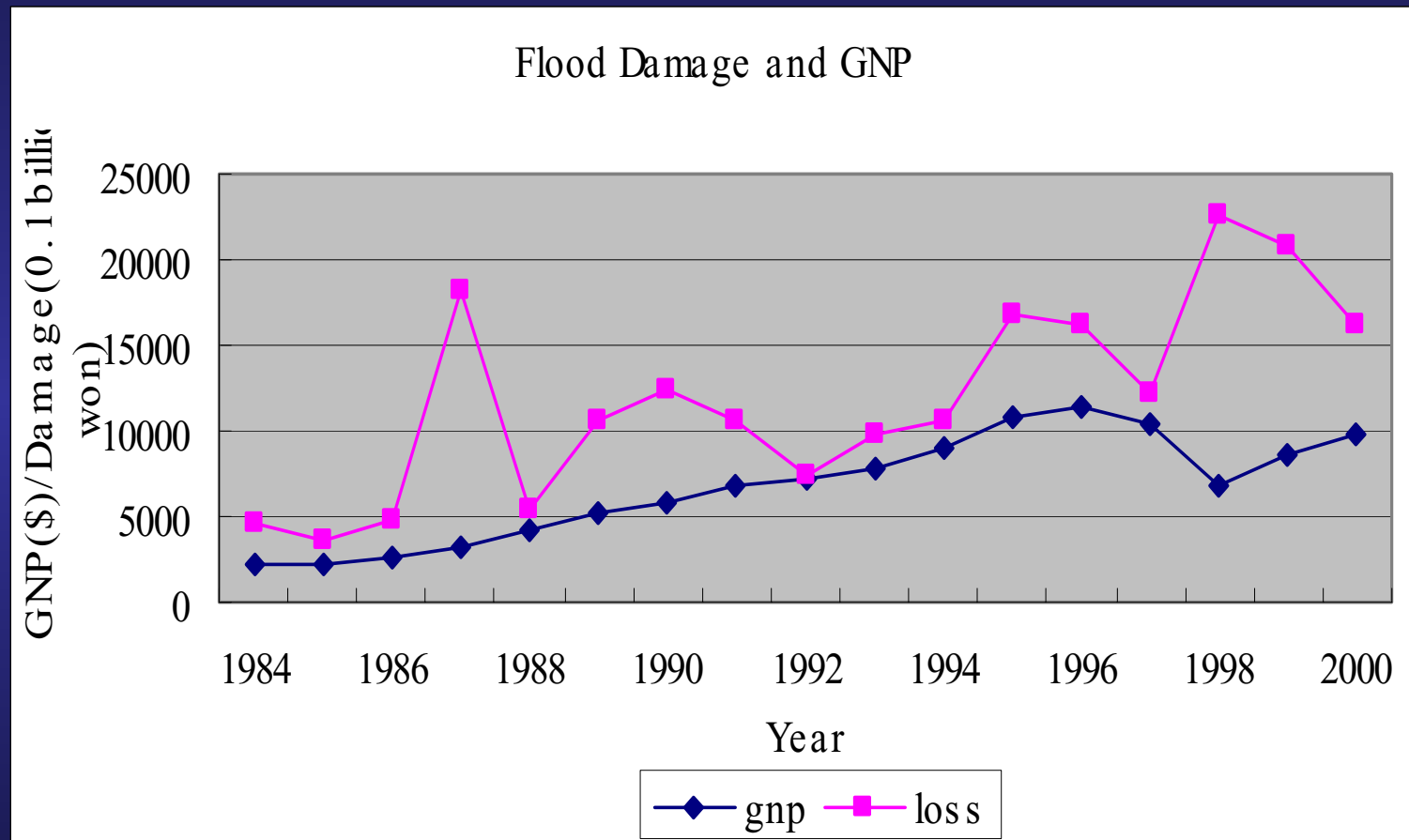
3. Lack of Enforcement

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

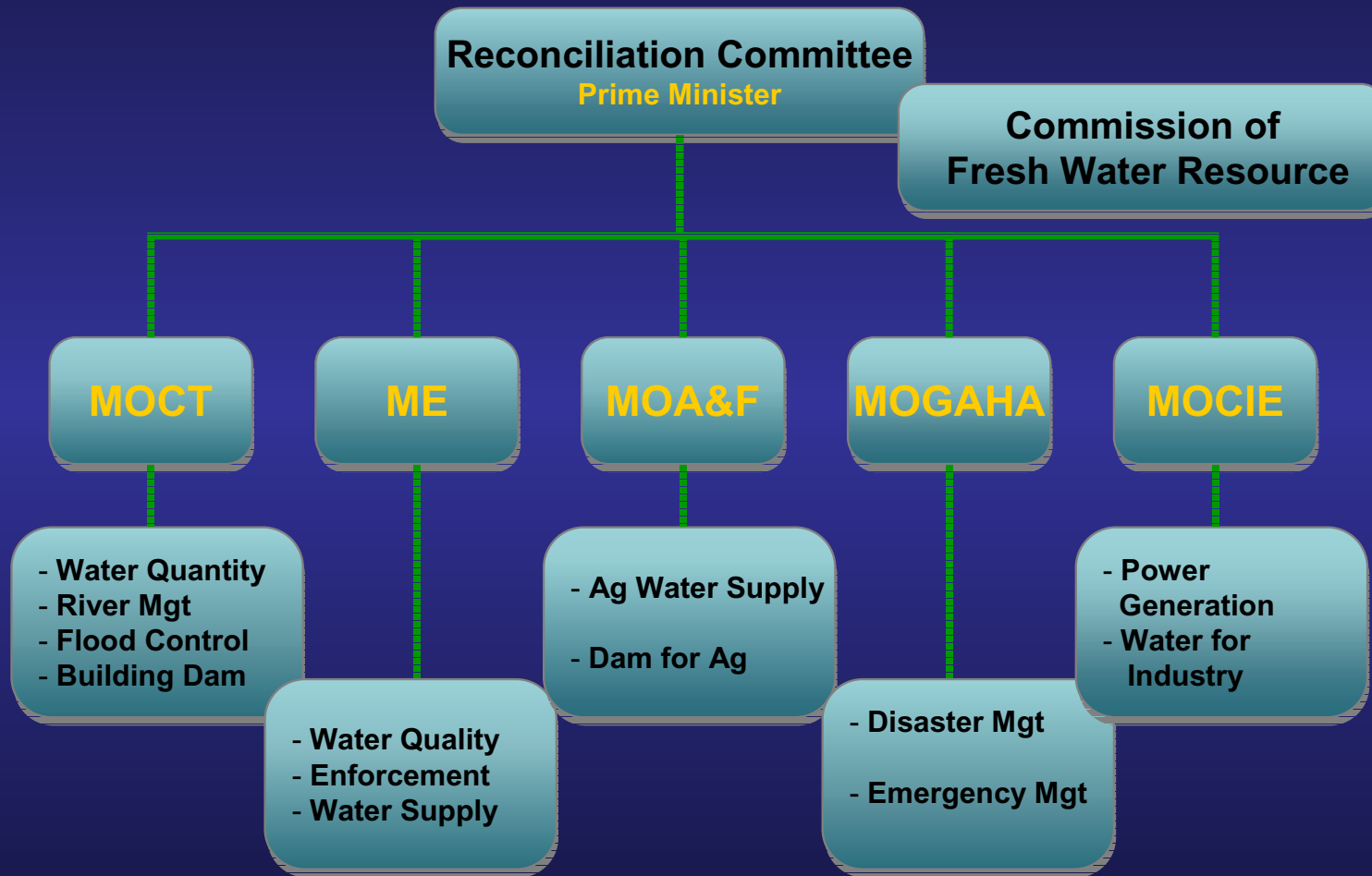
4. In Recent.....

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

Flood in Korea



Institutional Framework of Water Management



III. IWRM and IWM in Korea

Concept...Sustainability

1. IWRM

- Gaining Momentum Last Few Years
- Sustainable Resource Management System

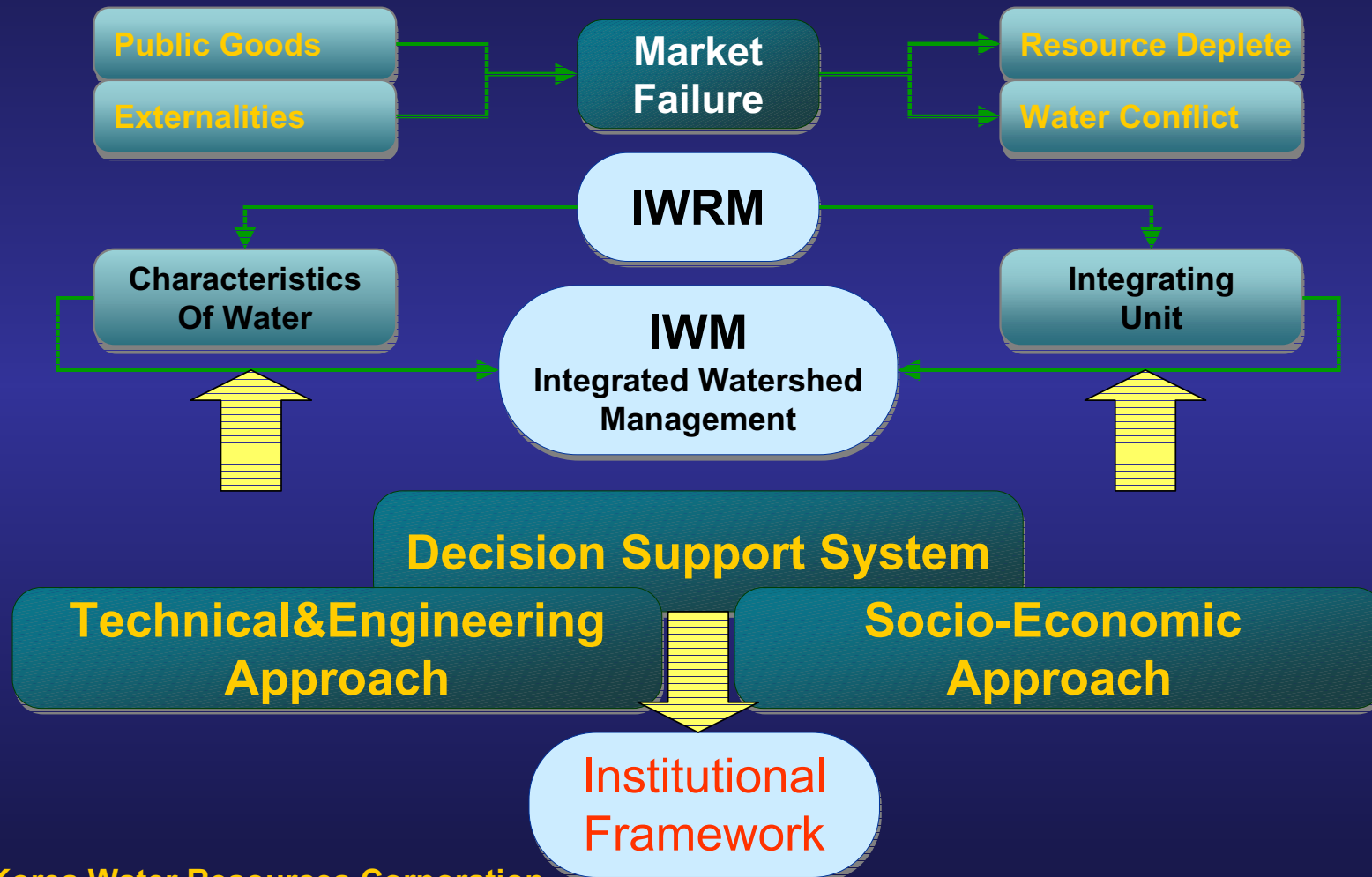
2. Integrating...What?

- Water is an Economic Goods and also Public Goods
- What is the Sustainable Level of Integrating?

3. Identification of Current Problem

- Social and Economic Factors
- Characteristics of water

Basic Concept of Water Resource Mgt



Integrating Economic into Water Mgt



**Water Resource is...
Capital of a Nation**

- How much do we supply ?
- for Drinking
 - for Industry
 - for Agriculture
 - for environment



**How much do they
make social benefits?**

**Engineering
Approach**

**Economical
Approach**

- Water Resource Planning
- Policy & Policy Evaluation



IWRM in Small River Basin: Ahnyang River



Project Title: Ahnyang River Restoration

1. Ahnyang River

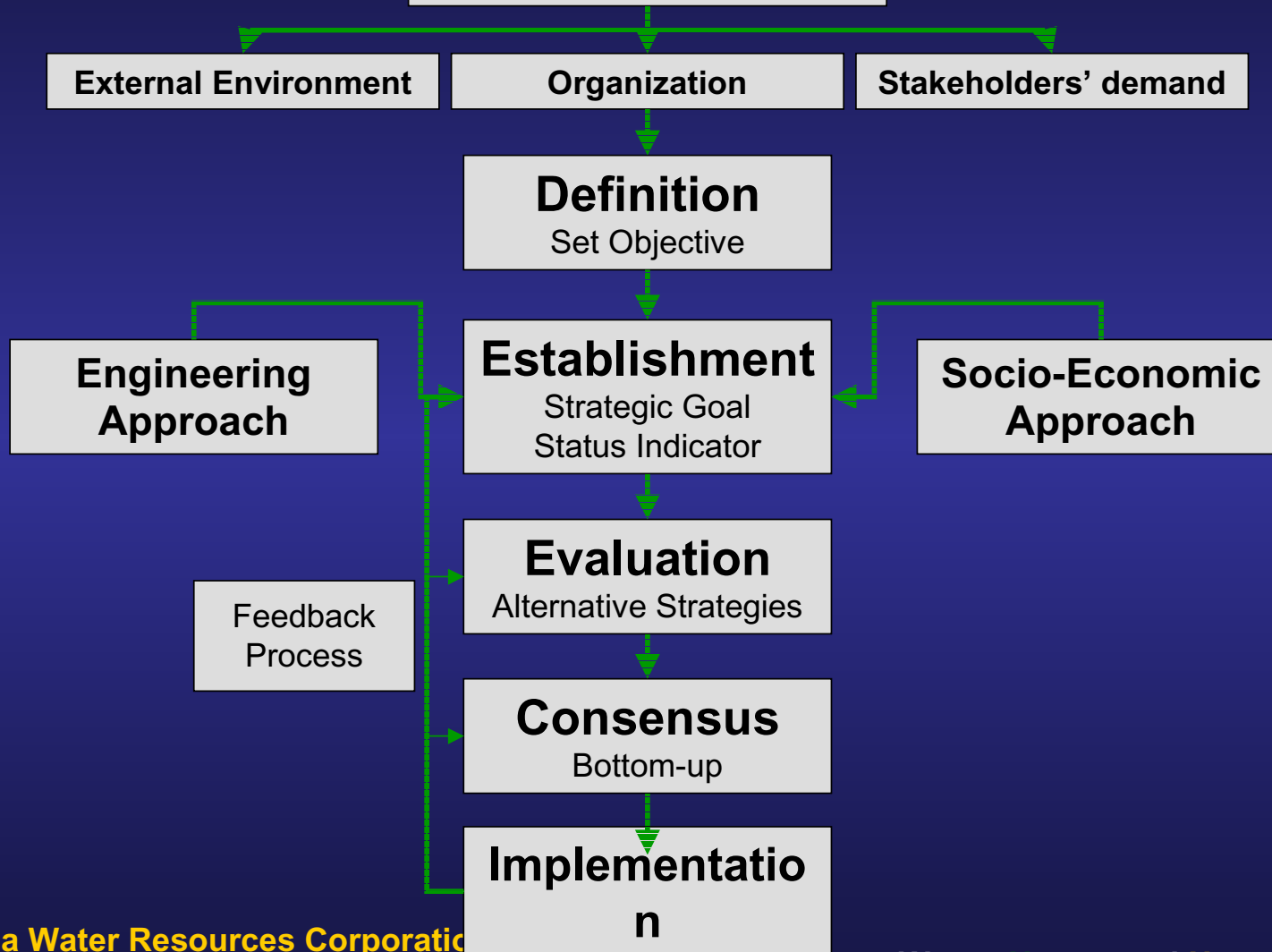
- The First Branch of the Han River
- The Second Biggest River of Han River
- Total River Basin: 288km²

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
- Research Project has Launched for 7 Years

Approaching..

Basin Assessment



Key Issues of of Project

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

Conclusions

Need to Establish its Own Concept

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

Decide the Level and Unit of Integration

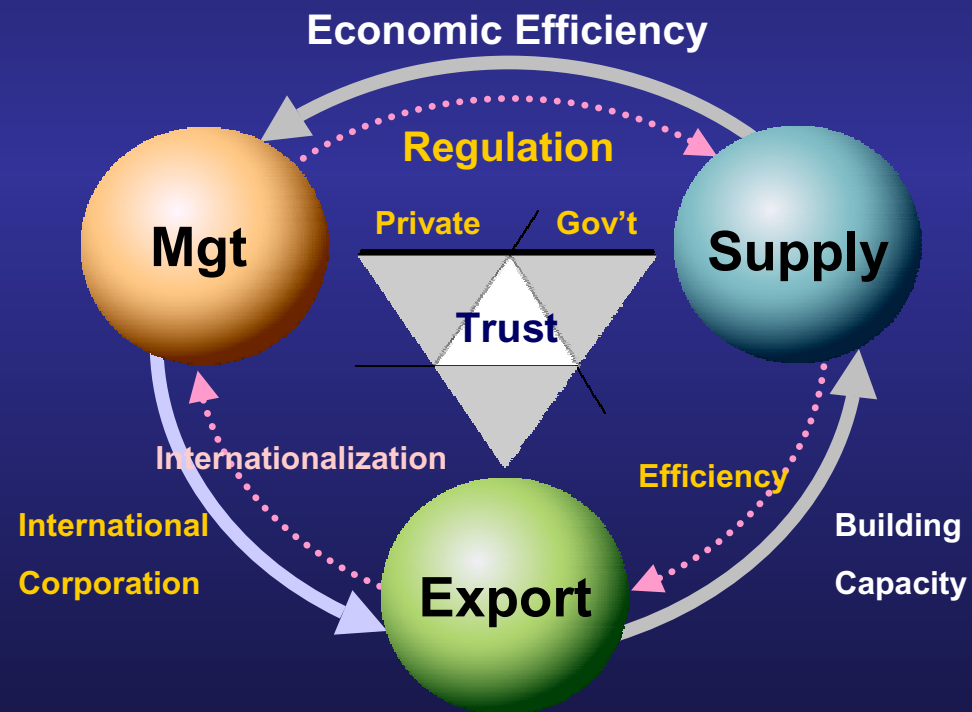
- Central or Regional Level?
- Including Administrative Body?

Starting with a Small Watershed

- Easy Assessment
- Less Risky
- Easy Operation

Korea Water Resources Corporation: **KOWACO**

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



THANK YOU