Integration of SEA with Urban and Regional Planning related to Total Pollution Load Management System in Korea

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Contents

Ⅰ. Introduction

- Background

The contents of Total Pollution Load Management System are overlapped with those of EIA, Pre-Environmental Assessment, urban plan, sewage (treatment) plan, administration plan etc.

various problems including inefficiency

Ⅰ. Introduction (continued)

Total Pollution Load Management System

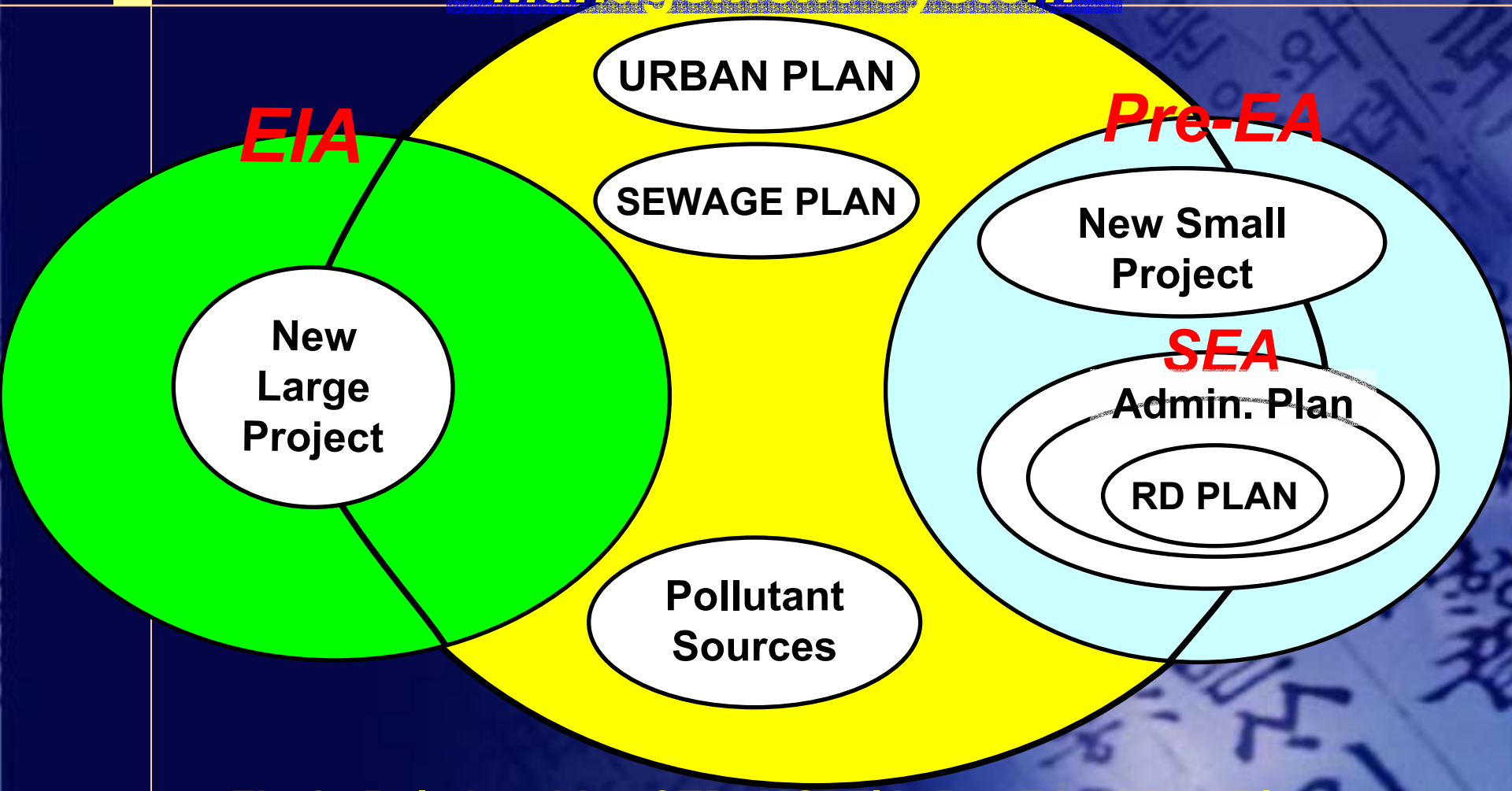

Fig.1 Relationship of TPLMS, EIA, Pre-EA, Urban Plan, Sewage Plan, Administration Plan in Korea

Ⅰ. Introduction (continued)

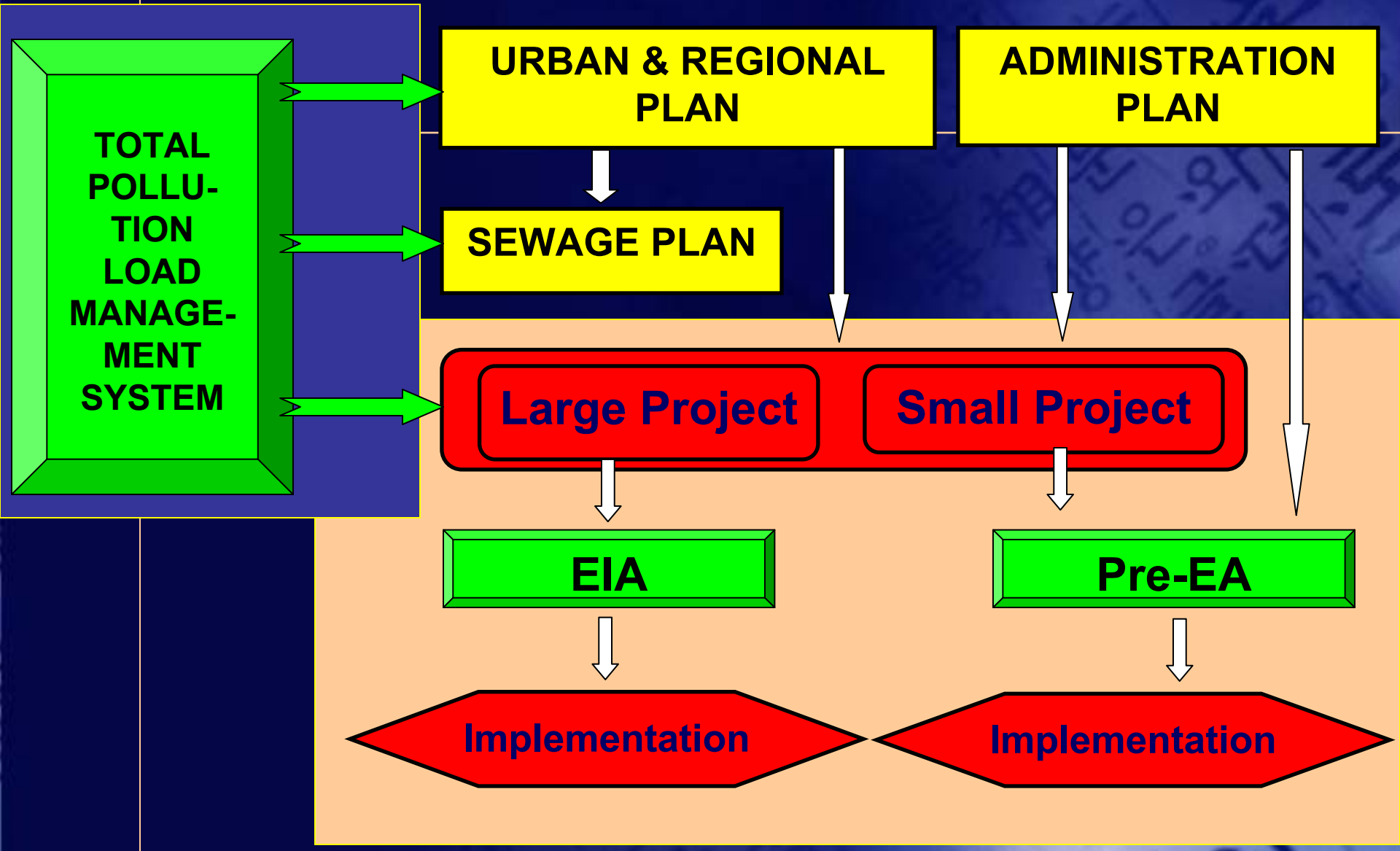

Fig.2 TPLMS and "dual" EIA system in Korea (2004)

Ⅰ. Introduction (continued)

- **Purpose and Scope**

  Suggestion of

  Integrated EIA system :

  TPLMS, EIA, Pre-EA,

  Urban Plan, Sewage Plan,

  Administration Plan

Ⅱ. Water Quality Management and TPLMS

1. Water Quality Management

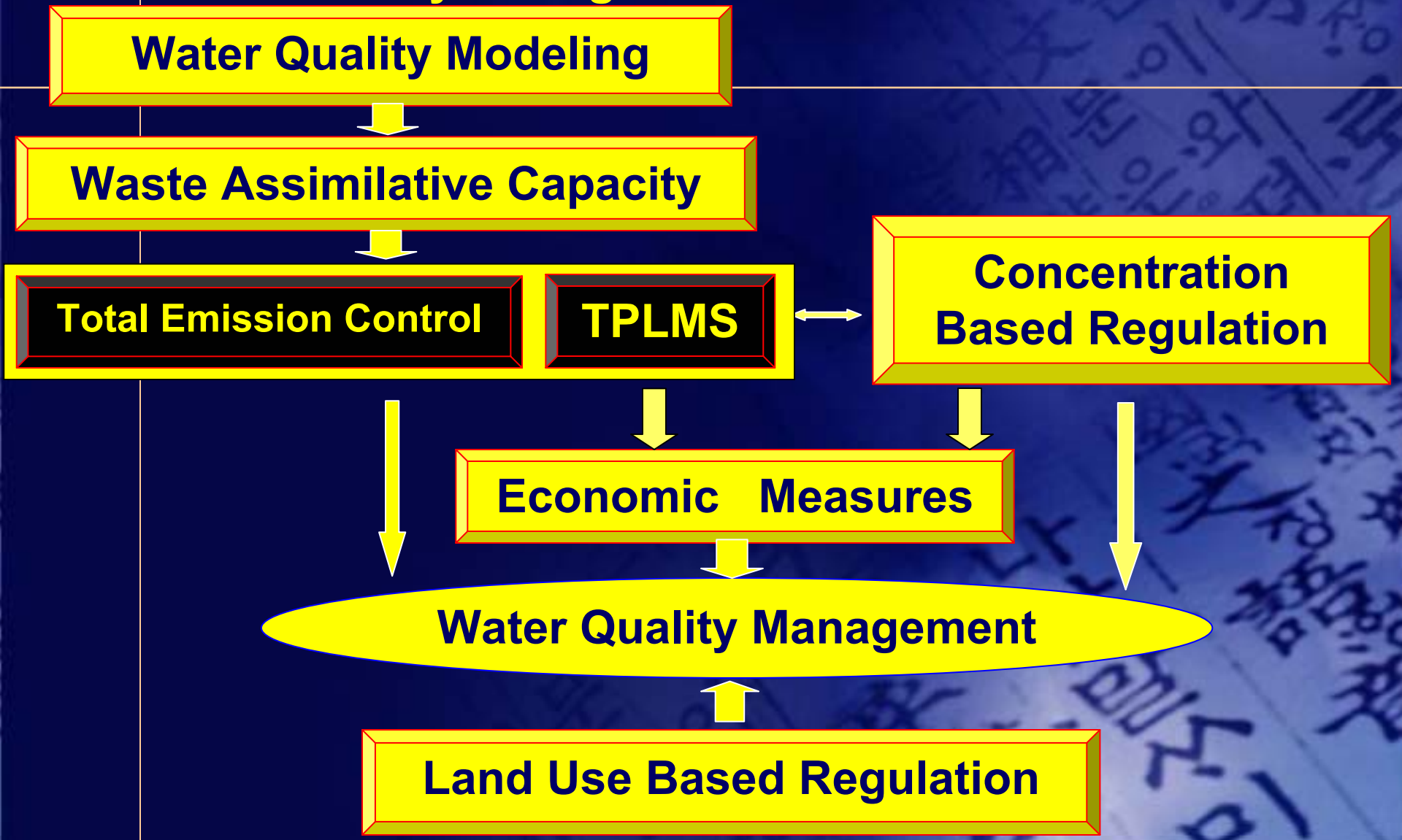

Fig.3 Water Quality Management in Korea

2. Total Pollution Load Management System

Target Water Quality for Water Use

Master Plan of TPLMS

Pollutant Load Allocation(PLA) to Unit Watershed for TPLMS

Partition of Unit Watershed into Small Watersheds

PLA to Small Watershed
= (estimated by Water Quality Modeling)X[1-(Safety Factor)]

Allocation of PLA to Small Watersheds to Local Government

Fig.4 TPLMS Process in Korea

Fig.5
Major Rivers
in Korea

General Status of Four Major River Basins

River	Han	Nakdong	Geum	Yeong-san
Main Flow length (km)	481.7	521.5	395.9	136.0
Basin area (㎢)	26,018	23,817	9,810	3,371
Average annual rainfall (m m)	1,286	1,137	1,268	1,400
Population (10 thousand)	2,280	1,190	625	423
Livestock (10 thousand)	301	280	275	504
Industrial Wastewater dischargers	22,061	15,095	8,125	5,113
Rate of households with sewage service(%)	80.9	57.7	50.9	52.3

Ⅲ. System similar with TPLMS and EIA

1. System similar with TPLMS

1) Total Emission Control (TEC)

Applied region

- region where Environmental Standards is violated and damage could happen to the residents and its surrounding ecosystem
- industry congestion region in Special Measure Area

Ⅲ. System similar with TPLMS and EIA

1. System similar with TPLMS (continued)

2) Development Regulation System

SYSTEM	CONTENTS
Development Density Management Zoning	applied to the region where the capacity of roads, school, and water supply & sewage treatment facilities is insufficient and additional construction of them is difficult
Development Quantity Regulation of Population Concentration Facilities :	restraining new & additional construction of population concentration facilities exceeding the permissible development capacity in Seoul Metropolitan Area

Ⅲ. System similar with TPLMS and EIA (continued)

2. EIA and Pre-EA

	CONTENTS	LAW
EIA	■ development project which has large environmental impact	EIA Act on Environment, Transportation and National Disaster, 1999
Pre -EA	■ administration plan which has environmental impact ■ development project In environmentally sensitive area	Basic Environmental Policy Act, 1990

Ⅳ. Problems of TPLMS in Implementation

1. Overlap with EIA and Pre-EA

SYSTEM	OBJECT	ASSESSMENT ITEM
TPLMS	■ existing and new pollutant sources ■ regional development plan	BOD
EIA, Pre-EA	■ new pollutant sources	living environment

2. Overlap with Urban Plan and Sewage Plan

The master plan of TPLMS established in every 5 years is overlapped with urban plan and sewage plan.

3. Different Application of TPLMS in the Four Major River

River	City of the river	TPLMS application option	Benefit
Han	Seoul	Optional	Relaxation of regional development restraint
Geum	Taejeon	Obligatory	NO
Nakdong	Taegu, Pusan		
Yeong-san	Kwangju, Mokpo		
Seomjin	Hadong		

V. Integration of TPLMS and EIA

1. Short-Term Direction

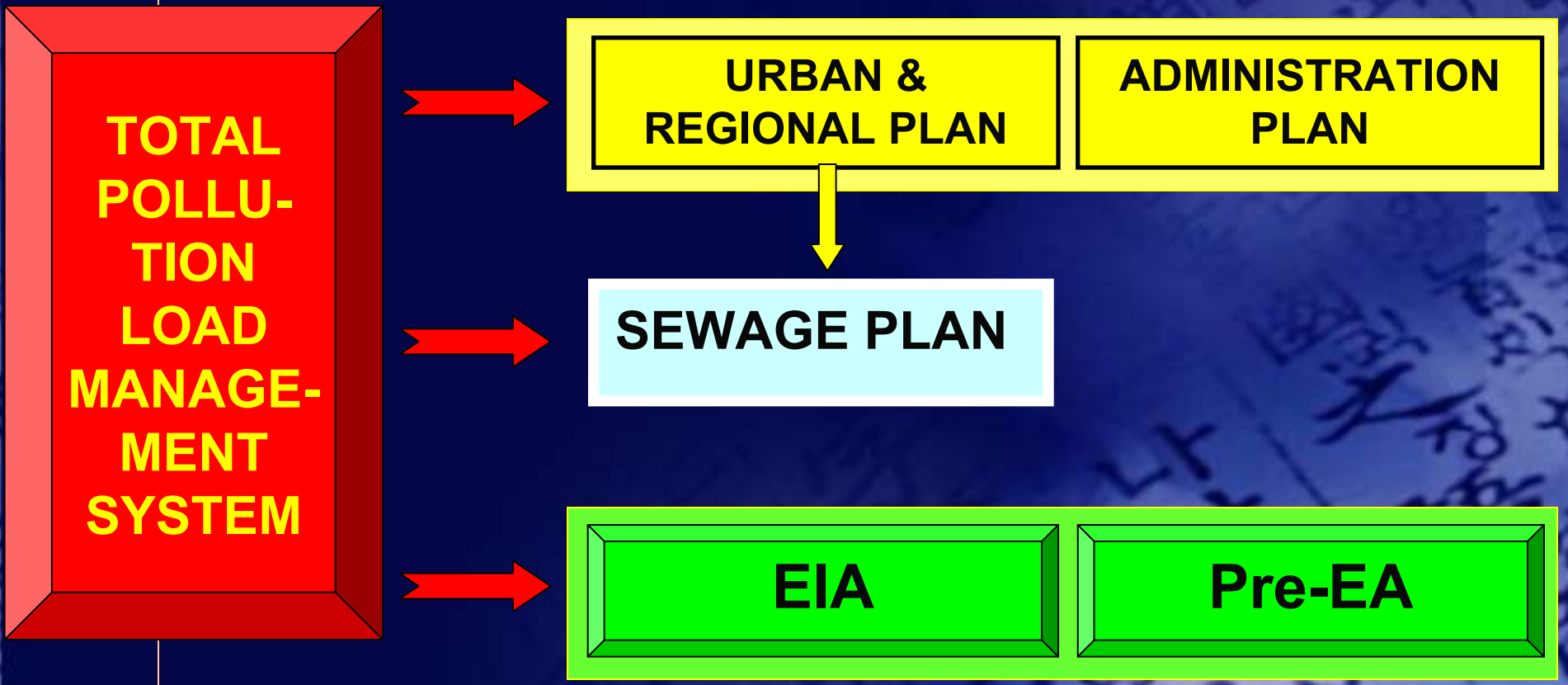

Fig. SYSTEMS in which TPLMS is included

V. Integration of TPLMS and EIA (continued)

2. Future Direction

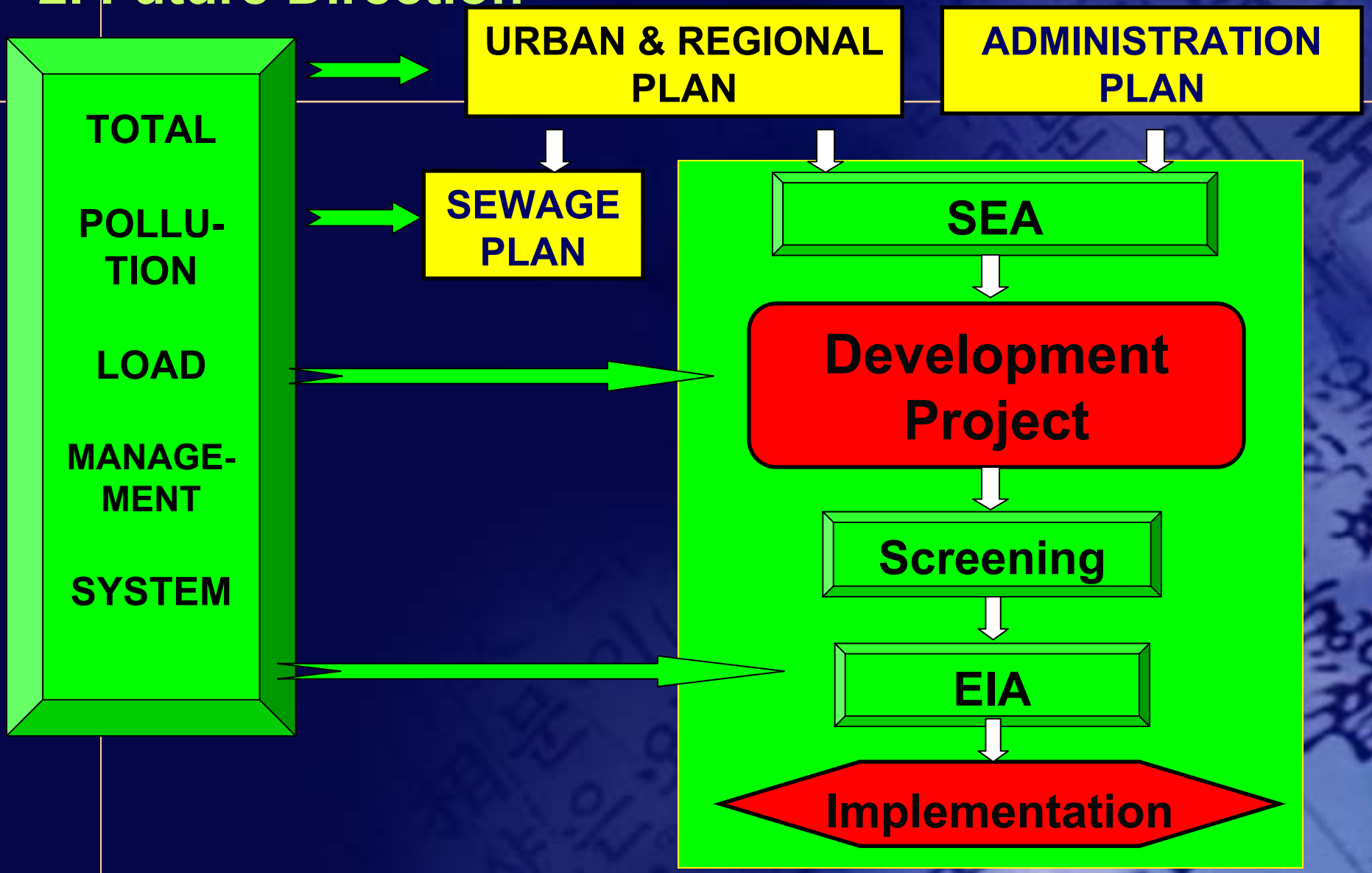

Fig.6 Future Direction of Integrated EIA in Korea