

**EGM on Sustainable Tourism: Ecotourism,
Poverty Reduction and Environmental Protection
29-30 October 2013, UNDESA, NY**



**Environmental Impact Assessment of Tourism Development:
Case studies and experiences**

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contents

- ✓ **(Eco) Tourism anchored in the SD and poverty eradication debate**
- ✓ **EIA and PER for Tourism Development Plan/Project in practice**
- ✓ **Sustainability Evaluation of the 10 Ecotourism Sites in Korea**
- ✓ **Tips for Future Works**

Sustainable Development and Tourism

Progress of SD efforts and its implication on tourism development

Sustainable Development

- ❖ **presented as a goal for sustainable humanity**
- ✓ “a development that meets the needs of the present without compromising the ability of future generations to meet their own needs (1987, Brundtland Commission, “Our Common Future”)”
- ✓ about **enabling people to satisfy their basic needs and enjoy a better quality of life, without compromising the quality of life of future generations**
- ▶ **NCSD, NSDS, Agenda 21, JOPI: UNCED (‘92), WSSD (‘02)**
- ▶ **Green Growth: UNESCAP (2005, MCED-5), OECD (2009)**
- ▶ **Green Economy: UNEP (2008)**
- ▶ **Green Economy: SD & Poverty Eradication (Rio+20, 2012)**

SUPPLEMENTARY

Regional and Global Initiatives on Green Eco. Growth



SUPPLEMENTARY

Key words for Tourism Development

Rise of the Green following the **Global Financial Crisis 2008**

“**Low Carbon, Green Growth**”, Korea, August 2008

“**Green New Deal**”, UN Secretary-General, speech to the UNFCCC Poznan, Dec. 2008

“**Green Recovery: The way out of the Economic Crisis**”, BMU, Germany, April 2009

“**Green Economy**”, House of commons, UK, March 2010

Green Economy

is an economy that results in **improved human well-being** and **reduced inequalities** over the long term, while not exposing future generations to significant environmental risks and ecological scarcities (**working definition of GE, UNEP/ ETB, 2008**).

“**Green investments** as the best bet for real growth, ... triggering an **employment boom**”

Green Growth

is to promote economic growth and development while **reducing pollution and greenhouse gas emissions, minimizing waste** and inefficient use of natural resources, and maintaining biodiversity (**C/MIN(2009)5/ADD1/FINAL, OECD**).

“**Make investment in the environment** is a driver for economic growth and development ... by **improving health and jobs prospects for populations...**”



Green Growth in OECD since 2009

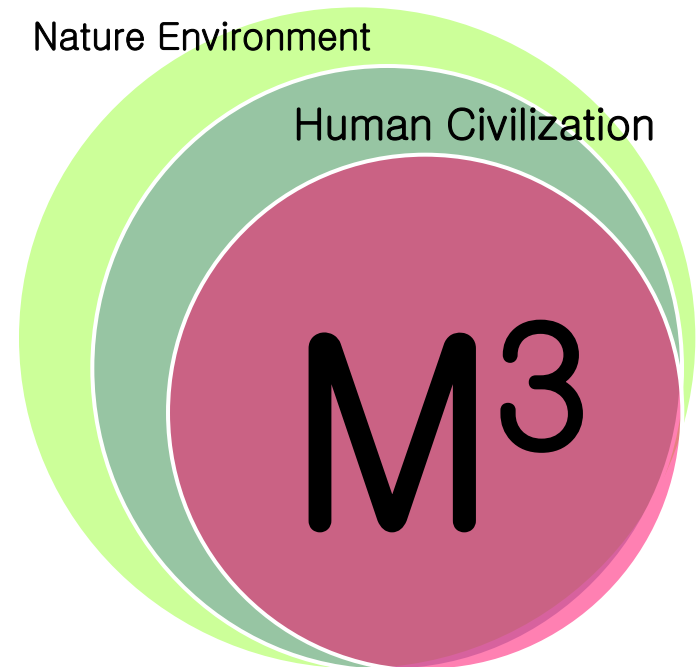
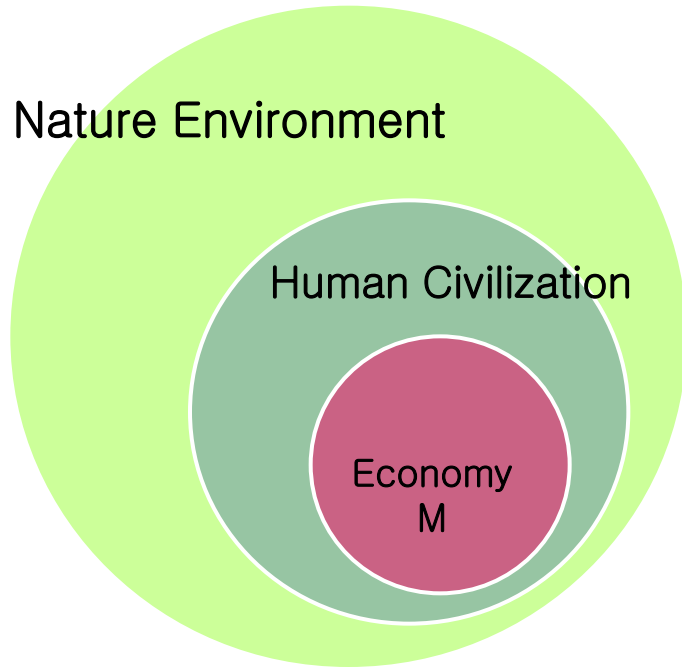
- ❖ At its **Ministerial Council Meeting in June 2009**, OECD recognized “The crisis convinced many countries that a different kind of economic growth is needed. In response, many governments are putting in place measures aimed at a green recovery. Together with innovation, **going green can be a long-term driver for economic growth**, through, for example, investing in renewable energy and improved efficiency in the use of energy and materials (www.oecd.org)”.
- ❖ Ministers welcomed the Green Growth Strategy and provided guidance on future work. They agreed that green growth tools and indicators can help expand **economic growth and job creation through sustainable use of natural resources**, efficiencies in the use of energy, and **valuation of ecosystem services** (OECD Ministerial Council Meeting 2011, Chair's Summary).
- ❖ OECD Report on “**Toward Green Growth**” (2011)

Green Economy Initiative by UNEP in 2008

- ❖ Green Economy Initiative, launched in late 2008, consists of several components whose collective overall objective is to provide the analysis and **policy support for investing in green sectors and in greening environmental unfriendly sectors.**

- ❖ It includes three sets of activities:
 - ✓ Green Economy Report and Analysis on the macroeconomic sustainability, poverty reduction implications of green investment, guidance on policies.
 - ✓ Advisory Services on ways to move towards a green economy in specific countries.
 - ✓ Partnership and Engagement in a wide range of research, non-governmental organizations, business and UN partners in implementing the initiative.

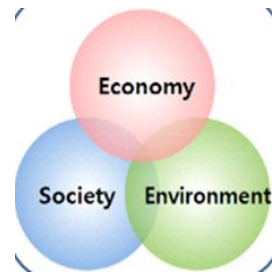
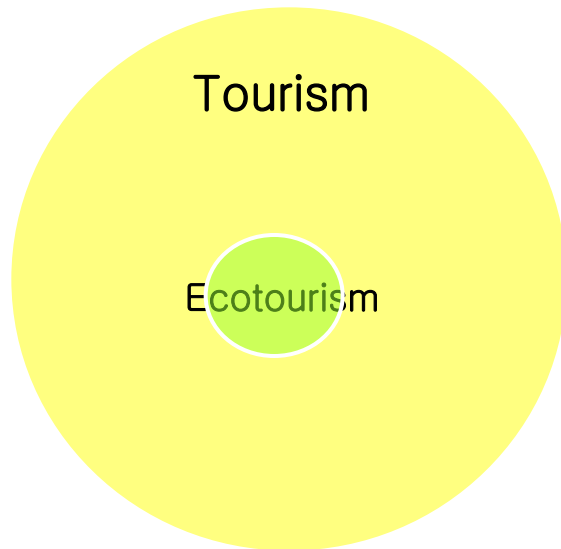
Risk of Maximum-only Development Strategy



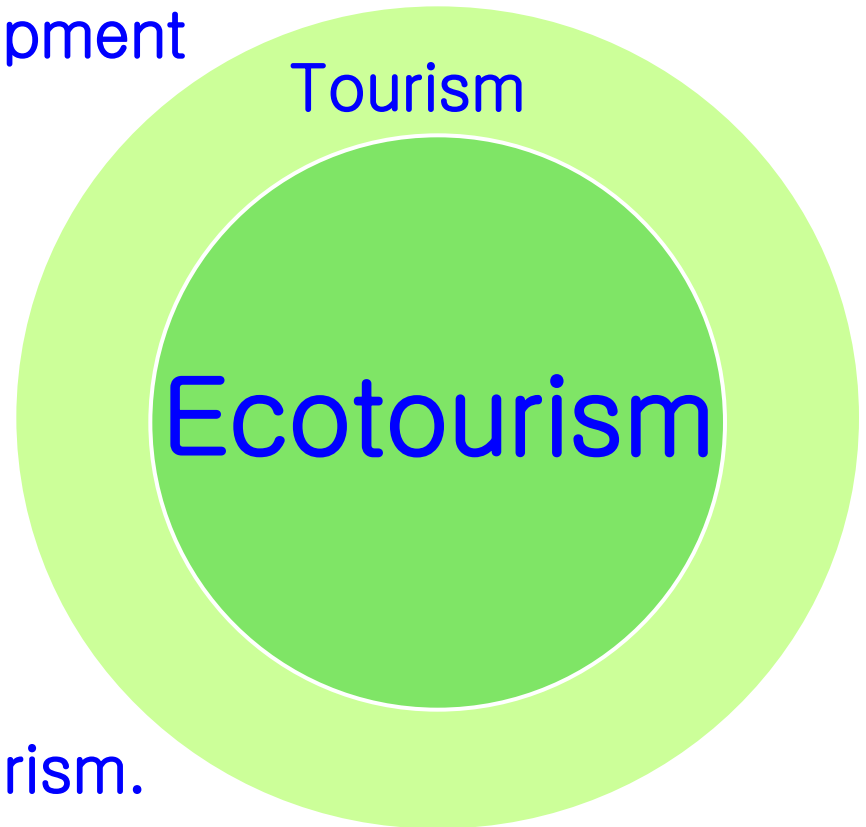
KEY MESSAGE for TOURISM DEVELOPMENT

Tourism Development in the context of GE and PR

Make tourism development
green.



Develop
sustainable ecotourism.



Impact Assessment of Tourism Development

Analytical Base of Sustainability Impact Assessment

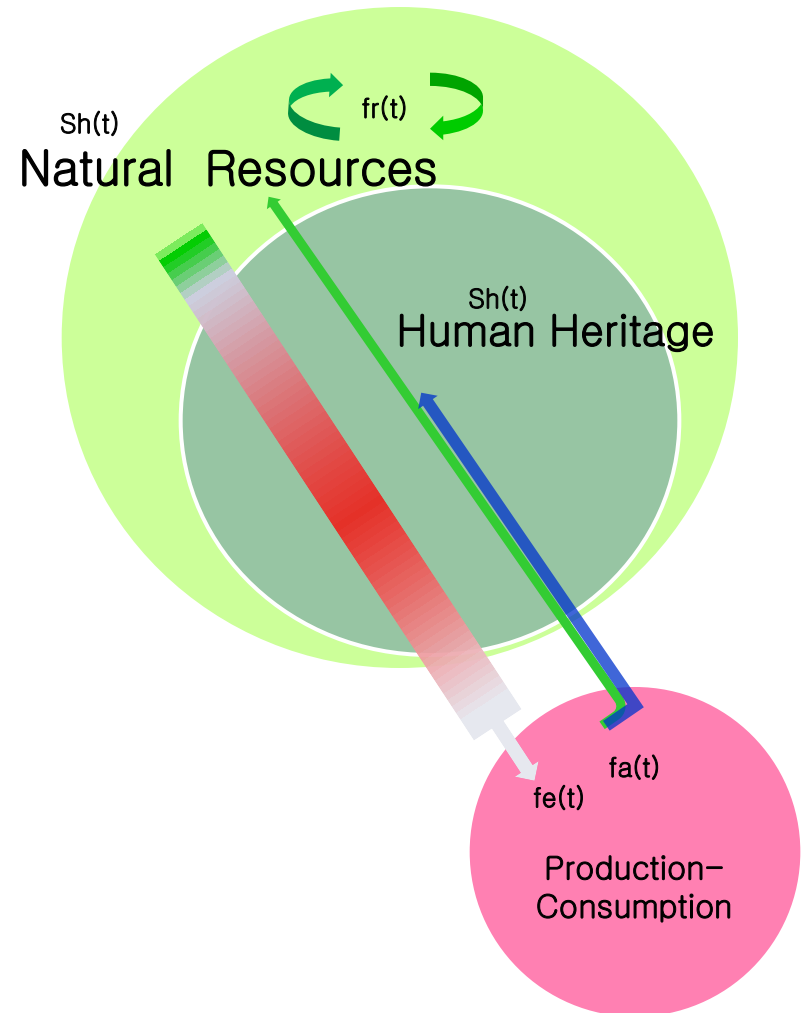
DEFINITION & CONCEPTS

Sustainability of a development in Stock-Flow Context

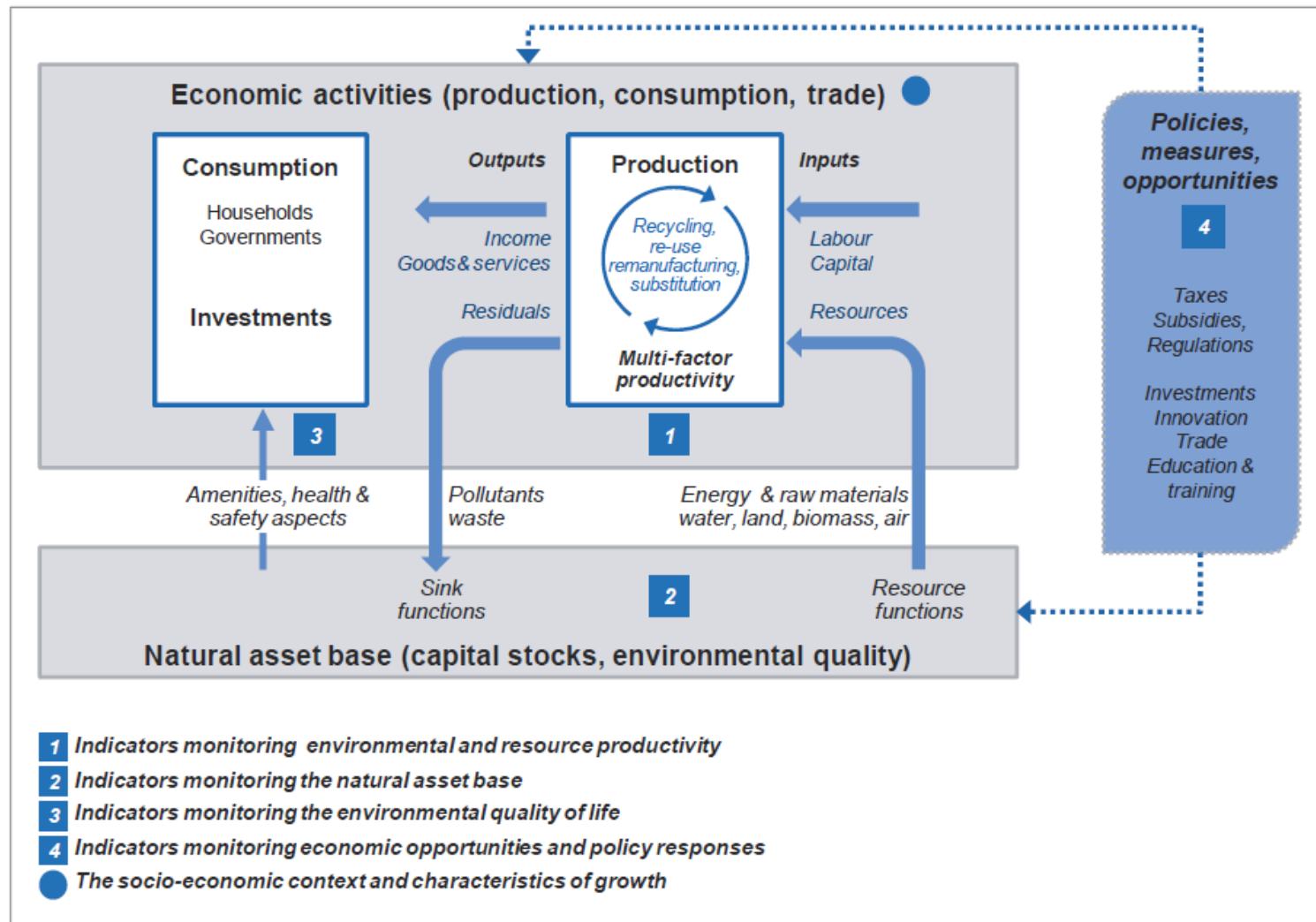
❖ Sustainability depends on

- ❖ Available stock of resources and heritages: $S_r(t)$, $S_h(t)$
- ❖ Exploitation speed: $f_e(t)$
- ❖ Renewal and Feed-back Accumulation: $f_r(t)$, $f_a(t)$

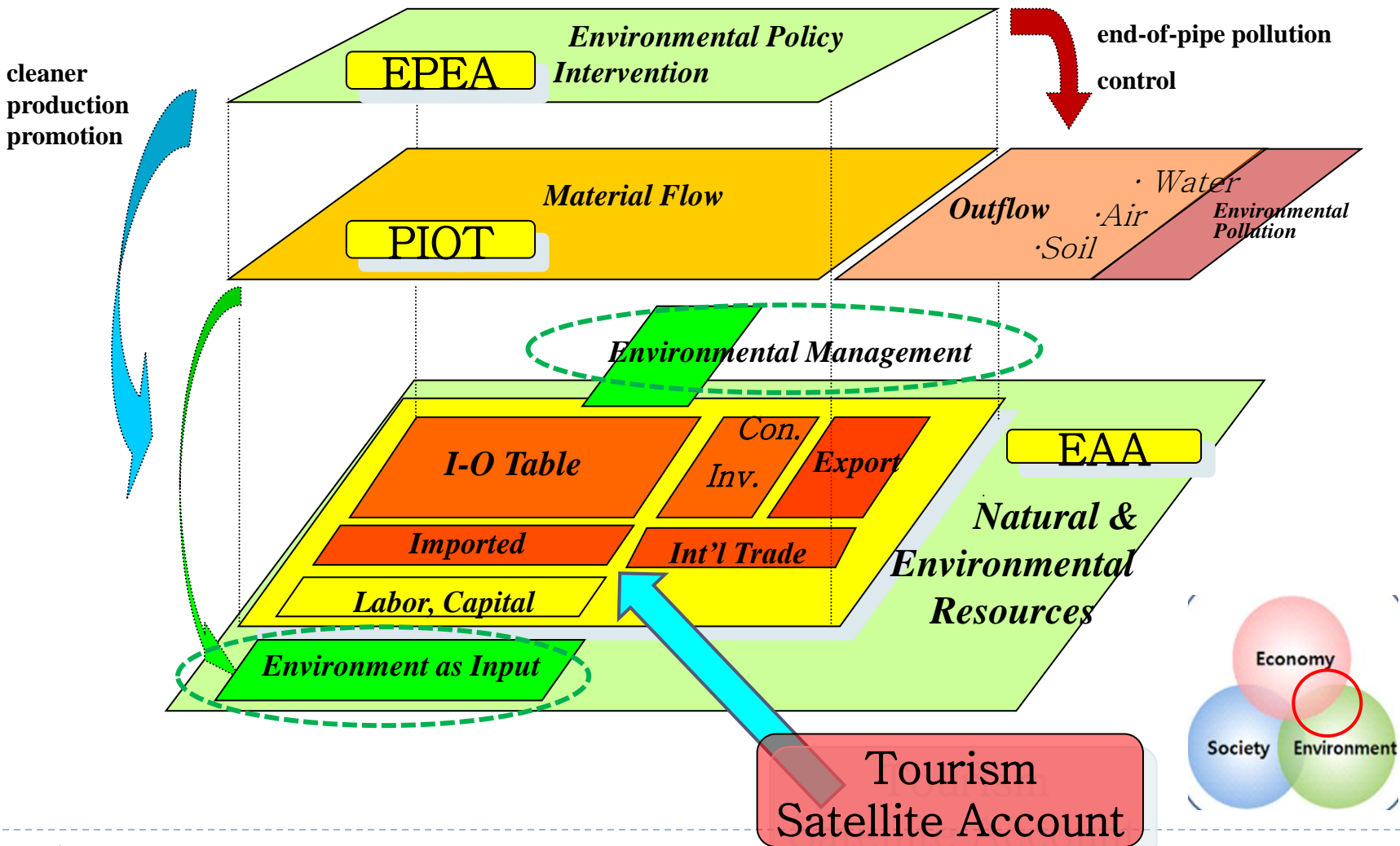
- ❖ Sustainability means a non-negative time derivative of per capita net stock of natural resources and human heritage: $(d(S_r+S_h+f_e+f_r+f_a)/dt \geq 0)$.



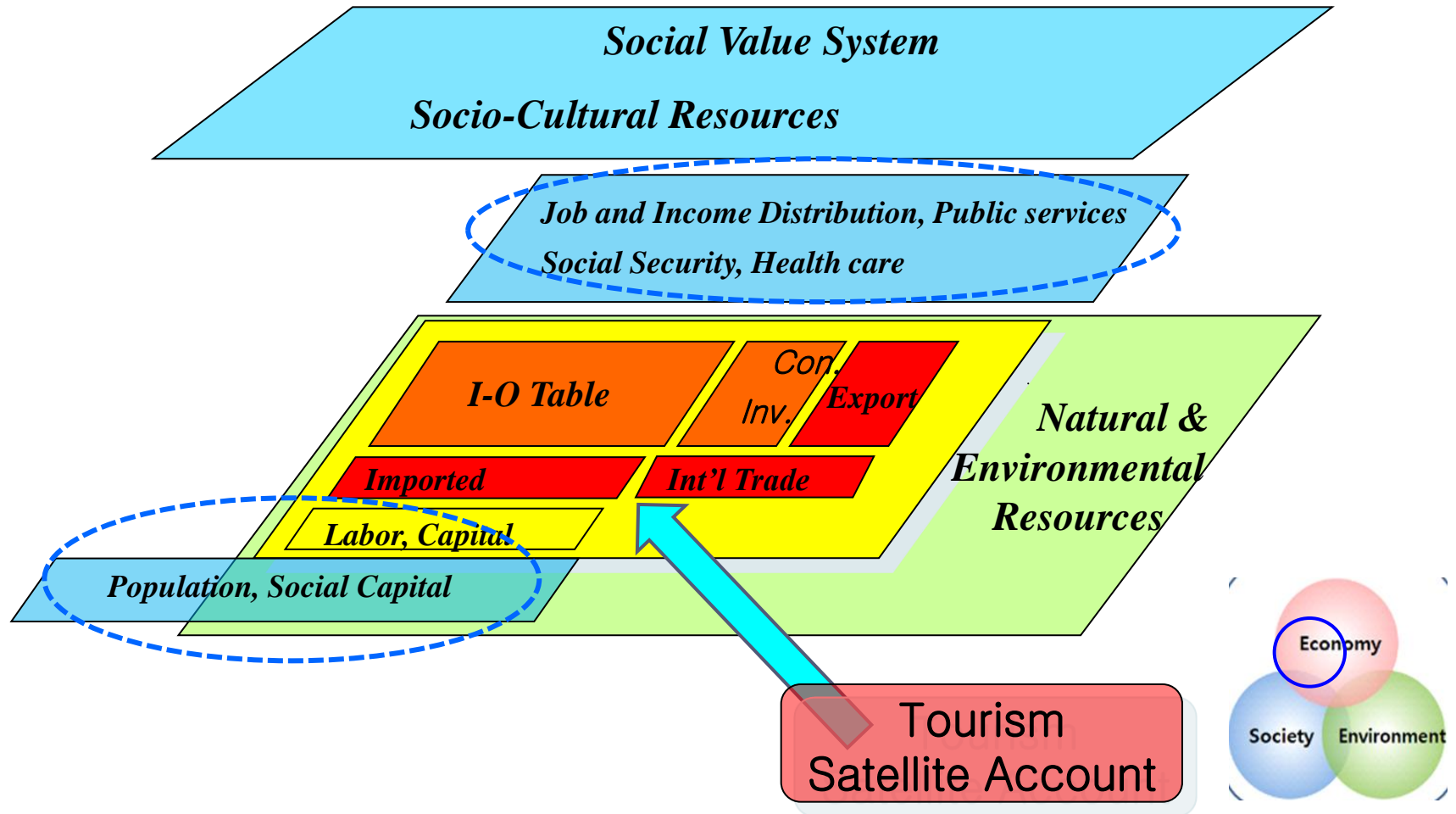
Inter-linkages among Indicators in practice



Monitoring Environmental Impact of Tourism in the environmental-economic interface of SD



Monitoring Social Impact of Tourism Development in the socio-economic interface of SD



EIA system for Making Tourism Development Green

Korean Socio-economic Development and Challenges

KOREAN CASE

Korea, a small open economy

Territory(109th, 99,720km²), Population(25th, 49.0 Millions, 0.7% of World Pop.)



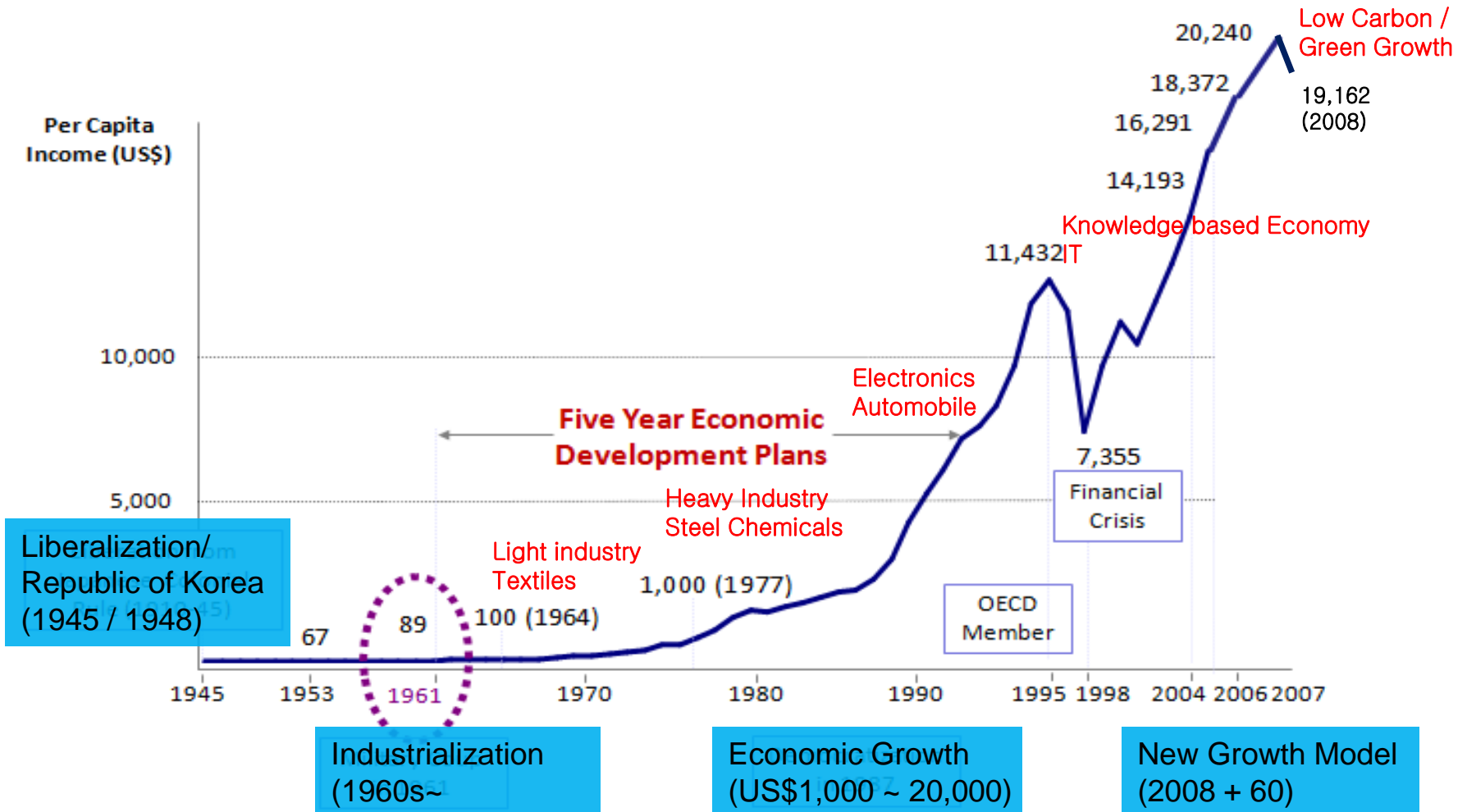
순위	국가명	면적(km ²)
93	 투발루	163,610
94	 네팔	147,181
95	 방글라데시	143,998
96	 타지키스탄	143,100
97	 그리스	131,957
98	 니카라과	130,370
99	 북한	120,538
109	 대한민국	99,720

순위	국가명	인구(명)
19	 몽고민주공화국	75,507,308
20	 타이	67,448,120
21	 프랑스	65,951,611
22	 영국	63,395,574
23	 이탈리아	61,482,297
24	 미얀마	55,167,330
25	 대한민국	48,955,203

KOREAN CASE

Development Trajectory since 1945 and Ranking in 2012

GDP(15th, 1.16 Trillions US\$, 1.60% of World GDP), GDP/Per.(34th, 23,679 US\$)



Source : KDI School of Public Policy and Management

KOREAN CASE

What a de-velopment looks like from 1960 to 2010



Development driven by
Human Resources...



Recognition on the Environmental Pressure from the Economic Growth since 1970's

an **economic growth** supposed to increase **quality of life** may result in **degradation and depletion of natural resources and human heritage**, which gives in turn **negative impacts** on the life quality.



Sustainability Challenges from 1990s

▶ Loss of Growth Momentum since 1990s

- ▶ Annual average GDP growth (%)
 - ▶ (1971~1980)**7.1** (1981~1990)**9.0** (1991~2000)**5.2** (2001~2010)**4.6**

▶ Fossil Energy Dependency and GHGs Emission

- ▶ Energy Intensity (TOE/1,000(US\$), 2008)
 - ▶ **0.30**(Korea) > **0.19**(US) > **0.18**(OECD Average) > **0.10**(Japan)
- ▶ Energy consumption grows faster than GDP (% , 2009~2010)
 - ▶ **6.7**(Energy consumption) > **6.1**(GDP)
- ▶ **9th** in Volume of GHG Emission, **1st** in GHG Emission Increase(1990~2007)

▶ Local Climate Change Impacts

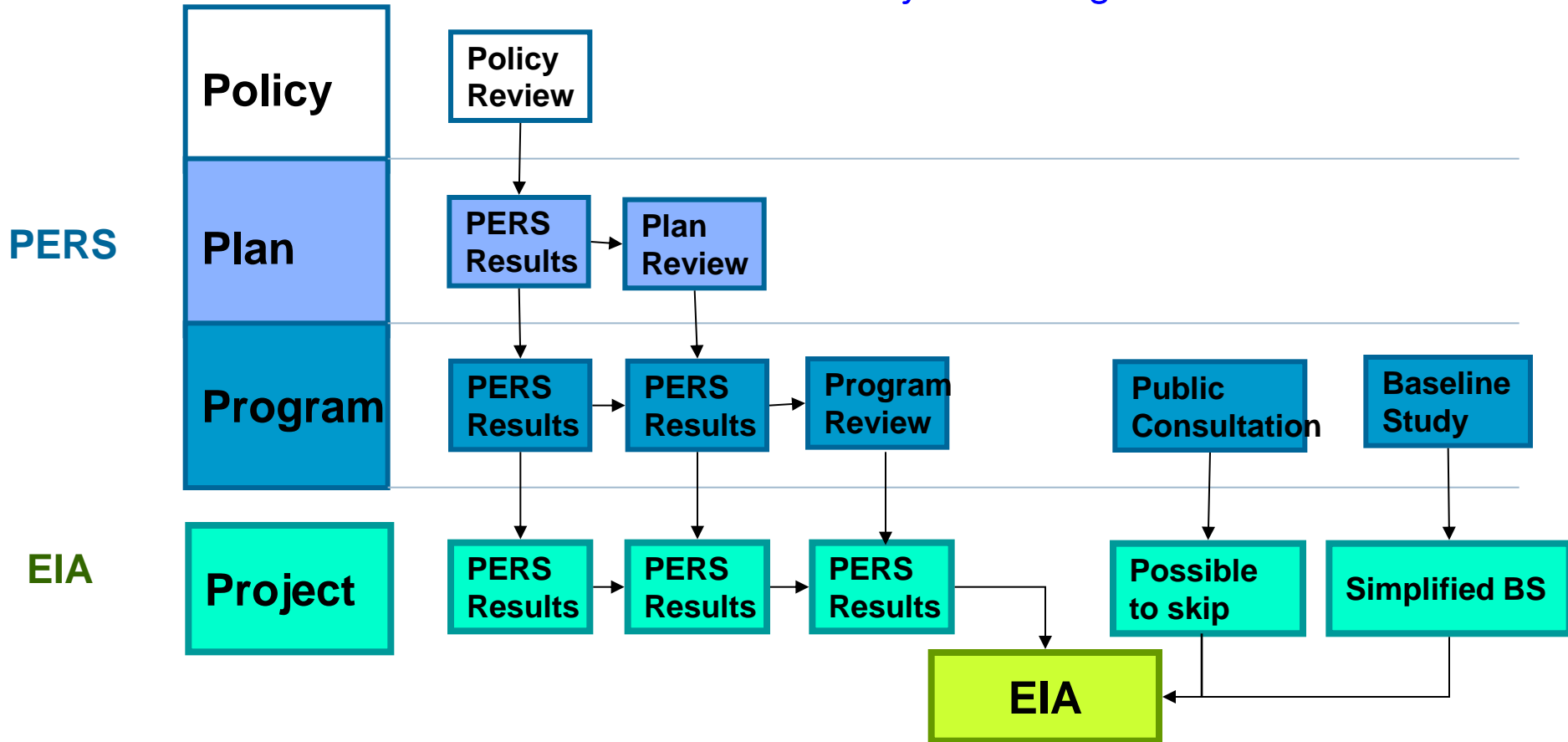
- ▶ Annual mean temperature increase for the past 100 years (1906~2005)
 - ▶ **2.4°C**(Seoul, Korea), three times higher than **0.74°C**(World Average)
- ▶ Annual average damage from extreme weather events (US\$, 1,000Won/Dollar)
 - ▶ **1.8 billion**(2000s), 3.6 times higher than **0.5 billion**(1990s)

Impact Assessment System on Policy, Plan, Program and Project

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EIA, PERS Structure for PPP & Project

EIA: Environment Impact Assessment
PERS: Prior Environment Review System
PPP: Policy-Plan-Programme



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EIA, PERS and PERS(SEA) coverage

	EIA (1977~)	PERS (1993~2006)	PERS(SEA) (From June 1st, 2006~)
Law	Act on Environment, Traffic and Disaster Impacts Assessment	Framework Act on Environmental Policy(FAEP) and other Acts	Framework Act on Environmental Policy
Subjects	17 areas 63 unit projects: road, railroad, land developments, power plants, etc.	48 plans and programs, 22 development projects - 17 P&P under FAEP - 31 P&P under other Acts - 22 Projects under FAEP	88 P&P and 22 projects related to the projects subject to EIA - 16 high level plans - 72 low level plans - 22 development projects
Preparation of EA report	developer	responsible authority or developer	responsible authority or developer in consultation of PERS committee
Consultation	Experts and expert groups, residents and stakeholders	relevant government agencies, experts and expert groups	relevant government agencies, expert and expert groups, residents and stakeholders
Time	before approval	before approval	at the start of PPP preparation
Assessment points	23 criteria (socio-economic, environmental)	Objective and content of PPP Environmental Baseline, etc	PERS+ scope, environmental effects, mitigation measures, etc.

Introduction of SEA* Concept in 2006

❖ **Presidential Decree** following the amendment 2006 of Framework Act on Environment Policy classified the PPP into 2 groups.

Group 1	<ul style="list-style-type: none">▪ Administrative plans representing governmental (central/local) policy- long-term plans- plans affecting development projects indirectly	<ul style="list-style-type: none">▪ 10 Laws 16 Plans (including 5 PERS-Plans)
Group 2	<ul style="list-style-type: none">▪ Sectoral plans- short-term plans- plans affecting development projects directly	<ul style="list-style-type: none">▪ 48 Laws 72 Plans (including 43 PERS Plans)

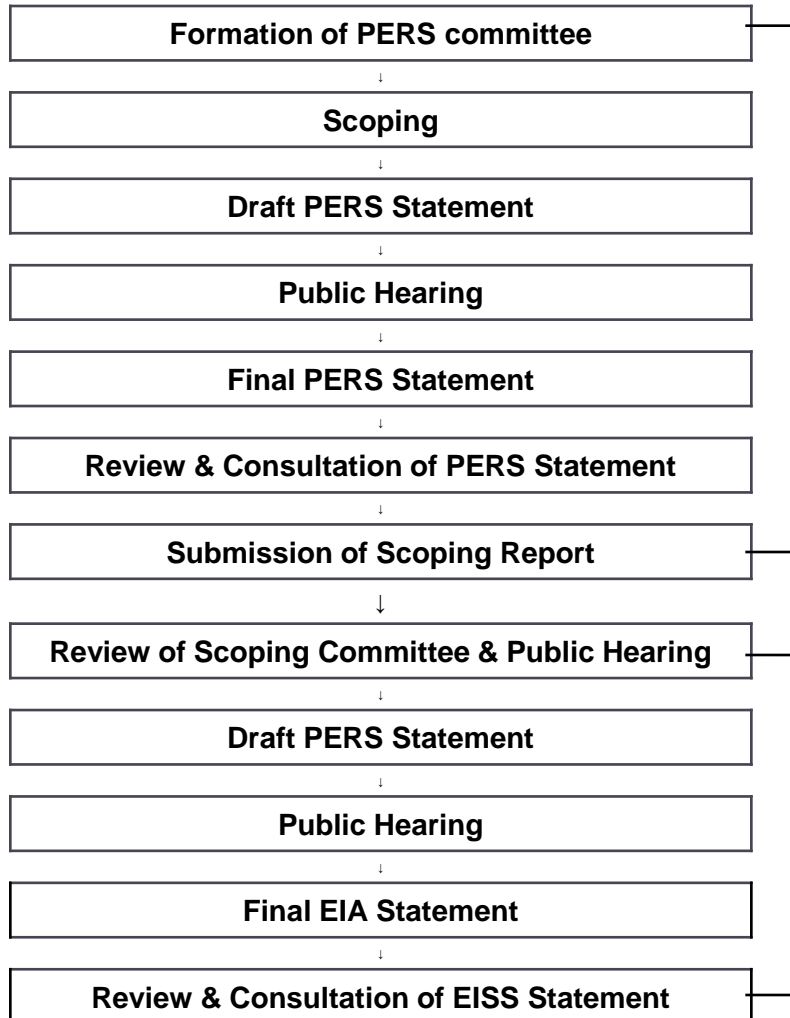
* **SEA: Strategic Environmental Review**

Enhanced Public Participation allowed during PERS(SEA) Process to avoid Social Conflict

	Range of Public Participation	Methods for Opinion Collection
Group 1	<ul style="list-style-type: none">▪ Experts▪ Related agency▪ PERS Committee▪ Representatives of Civil Group and NGO	<ul style="list-style-type: none">▪ Through PERS Committee
Group 2	<ul style="list-style-type: none">▪ Experts▪ Related agency▪ PERS Committee▪ Stakeholders,▪ Representatives of Civil Group and NGO▪ General public	<ul style="list-style-type: none">▪ Public Hearing▪ Explanatory Hearing▪ Survey

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Procedural Hierarchy of PERS and EIA



PERS on Tourism
Development **Plan and
Programme**

EIA on Tourism
Development **Project**

PERS and EIA of Tourism Development

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Tourism Development in EIA Project Assessment Groups

GROUP		PROJECTS
Airport Construction	1 projects	Airport
River	1 projects	River Maintenance
Reclamation and Land Filling	2 projects	Filling-up, Reclamation
Development of Resort	6 projects	Tourist Industry, Resort, Hot Spring Development, City Park, Natural Park
Development of Forest	3 projects	Public Cemetery, Grassland
Construction of Sports Facilities	5 projects	Youth Discipline Facilities, Discipline District, Physical Training Facilities, Velodrome, Racecourse
Construction of Wastes Facilities	2 projects	Night-soil Treatment, Waste Landfill
Construction of Military Facilities	3 projects	National Defense Facilities, Military Installations, Military Air Base
Excavation Work	4 projects	River and Coast, Forest, Coastal Quartz Sand, Coastal Sand

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Tourism Development in EIA Project Assessment Groups

GROUP		PROJECTS
Urban Planning	11 projects	Urban Development, Land Organization, Housing Development, Urban Renewal, Distribution Complex, Wastewater Treatment, Terminal, Educational Institution
Industrial Site Development	7 projects	National Industrial Complex, Local Industrial Complex, Industrial Complex of Rural Area, Small and Medium Industry Area, Free Export Zone
Energy	6 projects	Power Plant, Electricity Facilities, Mining Industry, Submarine Mining Industry, Facilities of Storing Oil
Harbor and Port Development	4 projects	Fishing Port, Harbor Facilities, Submarine dredge
Road Construction	1 projects	Road
Development of Water Resources	2 projects	Dam, Reservoir
Rail Road	4 projects	Railroad, City Railroad, High-Speed Railroad, Cable Railway



KOREAN CASE

Legal Basis of EIA & PERS on Tourism Development

❖ Legal Basis

	EIA	PERS
Time of Introduction	• 1977	• 1993
Legal Basis	▪ Act on the Assessment of impacts of works on Environment, Traffic, Disasters, etc.	• Frame work Act on Environmental Policy
Subjects to be Assessment	• 17 Fields 74 Projects	• 48 Administrative Plans
Time of Execution	• Before approval or confirmation of the project	• Before approval or confirmation of the plan or program
Assessment Criteria	▪ Natural Environment - Geology, Flora & Fauna, Hydrology • Living (ambient) Environment - Land use, Air & water Quality, Soil, Solid waste, etc. • Socio-Economic Environment - Population, Residence, Traffic, Cultural Asset, etc.	▪ Natural Environment - Geology, Flora & Fauna, Hydrology • Living (ambient) Environment - Land use, Air & water Quality, Soil, Solid waste, etc. • Socio-Economic Environment - Population, Residence, Traffic, Cultural Asset, etc.

Assessment Criteria & Indicators in practice

Items	PERS	EIA
<p>Geology, topography</p>	<ul style="list-style-type: none"> o Description of geology & topography necessary to preserve o Characterization of geology & topography o Affected area and measures 	<ul style="list-style-type: none"> o Loss prevention and use of surficial soil or fertile soil o Restoration or use plan of borrow pit o Estimation & measures due to soil loss and sedimentation o Conservation of excessively slant area
<p>Flora, Fauna</p>	<ul style="list-style-type: none"> o Identification of species distribution, species diversity, and designation of conservation sites o Establishment of conservation measures 8th grade of degree of green naturality o Establishment of conservation measures in 1st grade of ecological degree of naturality 	<ul style="list-style-type: none"> o Change estimation and measures of flora and fauna o Estimation and measures due to hot water discharge o Consideration of breeding season, habitat of migrant birds and so on o Effects and estimation due to habitat destruction of flora and fauna o Measures of natural vegetation conservation and share of green zone
<p>Hydrology</p>	<ul style="list-style-type: none"> o Status of water resource use and water supply plan o Effect and measure of quantity on river network 	<ul style="list-style-type: none"> o Effects and measures of river bed and watershed o Estimation and measures of river maintenance flow

Assessment Criteria & Indicators in practice

Items	PERS	EIA
Land use	<ul style="list-style-type: none"> o Analysis & evaluation of site selection considering near land use 	
Air Quality	<ul style="list-style-type: none"> o Investigation for sufficient distance from the project site to the impact area, and formation of buffer zone o Identification the relationship between wind velocity and pollutant dispersion 	<ul style="list-style-type: none"> o Identification emission source o Comparison of emission source and emission rate with national ambient levels o Identification of mitigation measures o Estimation effects of scattering dust at construction or operation o Review of fuel plan and heat supply process
Water	<ul style="list-style-type: none"> o Analysis of relationship between water supply plan and water consumption o Relationship between master plan of sewer and wastewater treatment plan o Analysis & measures of determining to meet the total water pollution load management standard 	<ul style="list-style-type: none"> o Measure of wastewater treatment o Estimation of water quality and measure of water quality conservation o Mitigation measures of non-point source pollution o Measure of leachate treatment o Conservation measures of ground water quality and quantity
Noise, Vibration	<ul style="list-style-type: none"> o Estimation & measures of mobile source (traffic, airplane and so on) noise levels 	<ul style="list-style-type: none"> o Identification & measures of Noise source o Estimation & mitigation measures of noise and vibration due to explosive use and so on o Layout plan on fixed source pollution (Factory, facilities and so on)
Landscape	<ul style="list-style-type: none"> o Use of the existing landscape and making plan considering the characteristics of land use are 	<ul style="list-style-type: none"> o Quantitative review and measures of effects due to change in main view points

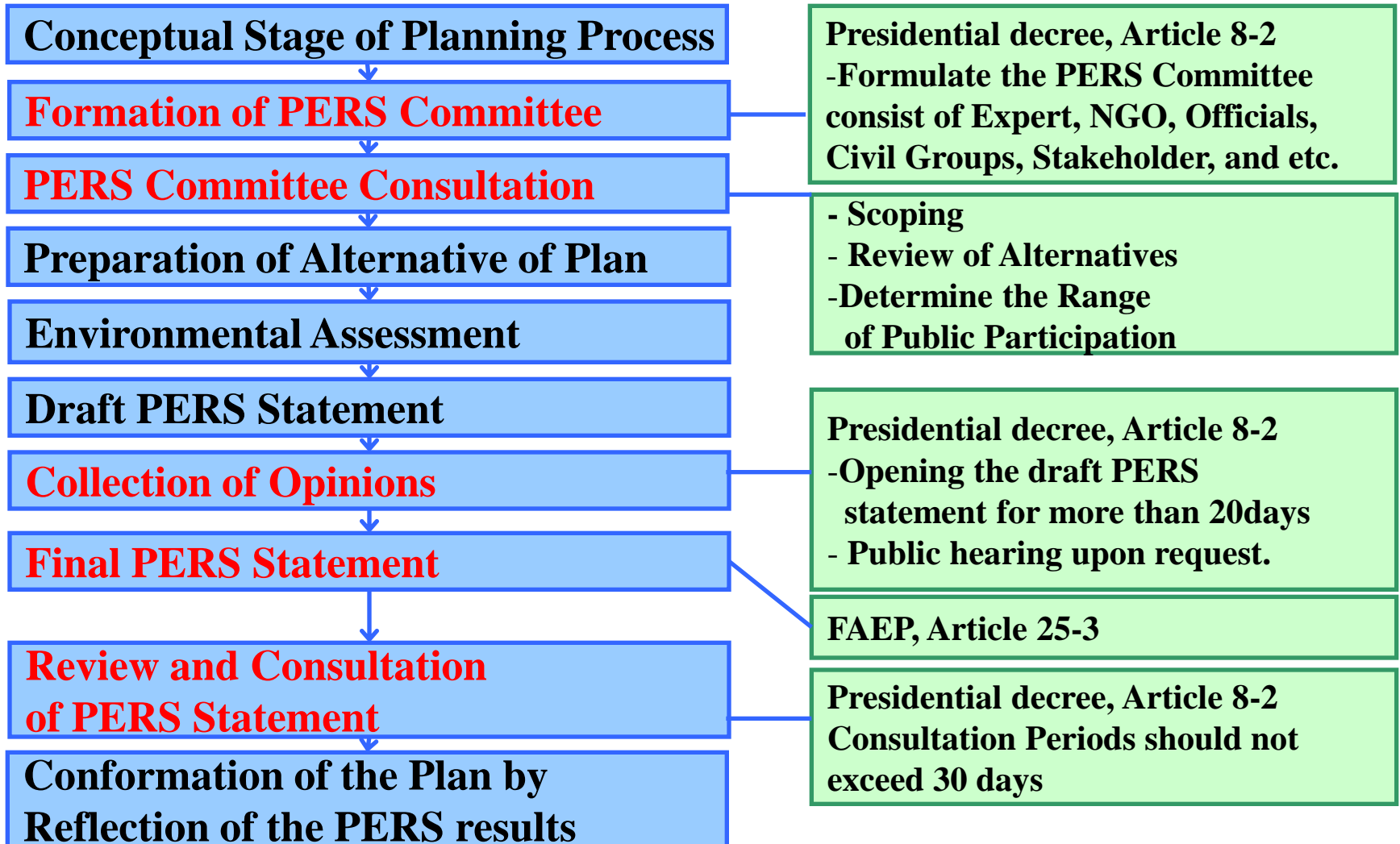
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Assessment Criteria & Indicators in practice

Items	PERS	EIA
Population	<ul style="list-style-type: none">o Measures to densely in habitual districto Environmental effects & measures to densely in habitual district	
Housing	<ul style="list-style-type: none">o Connection plan of road network in residential area	<ul style="list-style-type: none">o Environmental effects estimation & measures of residential area
Industry	<ul style="list-style-type: none">o Estimate the change in industrial structure	<ul style="list-style-type: none">o Estimation & measures to fishing right, farms, crop and so on
Public Facilities		<ul style="list-style-type: none">o Effects & measures of capacity to public facilities
Education		<ul style="list-style-type: none">o Effects & measures of capacity to education facilities
Traffic	<ul style="list-style-type: none">o Analysis & measure of relationship between change of traffic volume and transportation plan	<ul style="list-style-type: none">o Review of the suitability of site, and capacity for parking lots and transfero Selection and adequate lay out of line of trees
Cultural properties	<ul style="list-style-type: none">o Effects & measures of cultural or historic sites in relation to the project	<ul style="list-style-type: none">o Identification of surficial geology in historic siteso Protection measure of any historical or cultural resources etc.

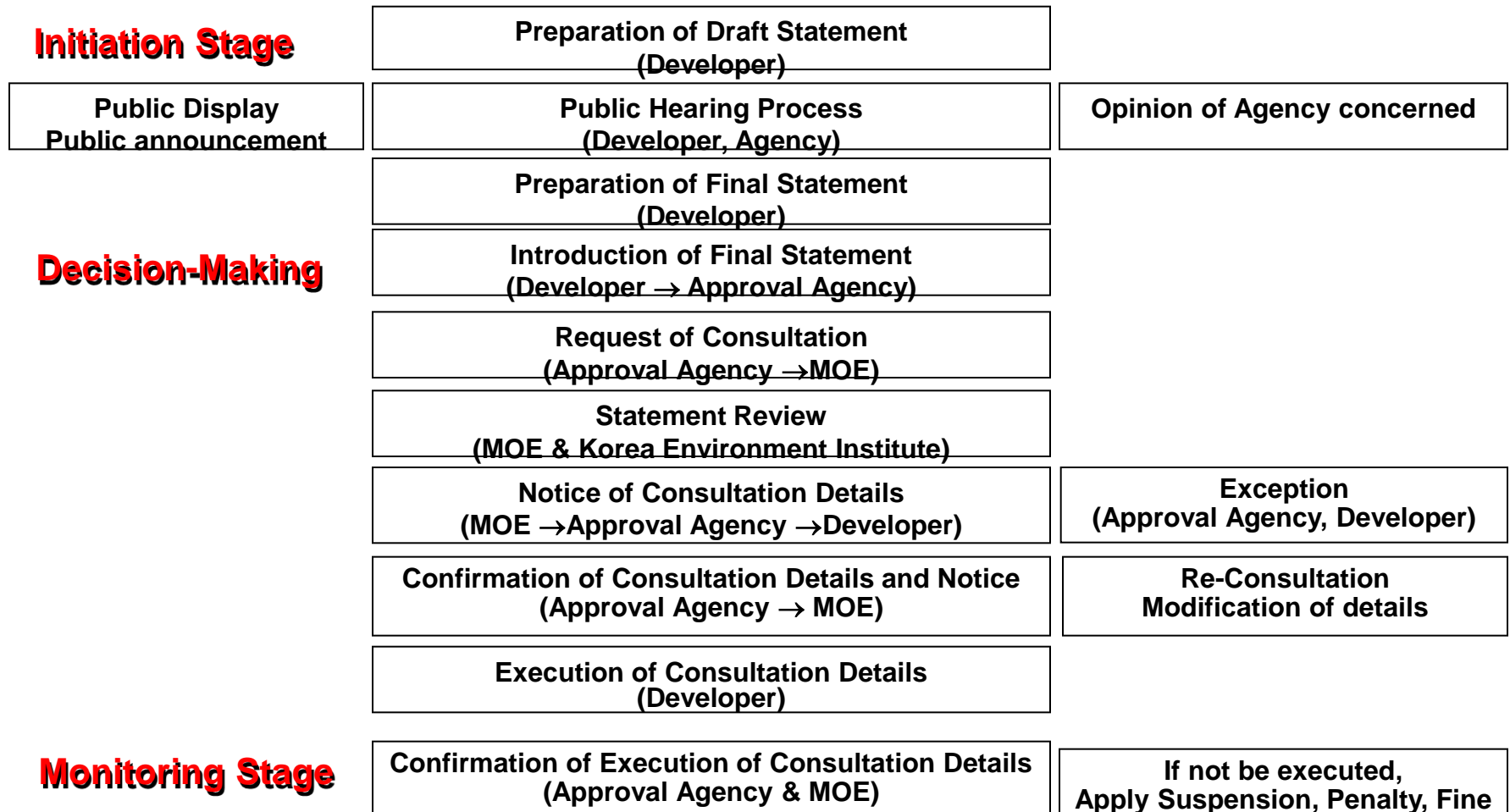


PERS Procedure in detail



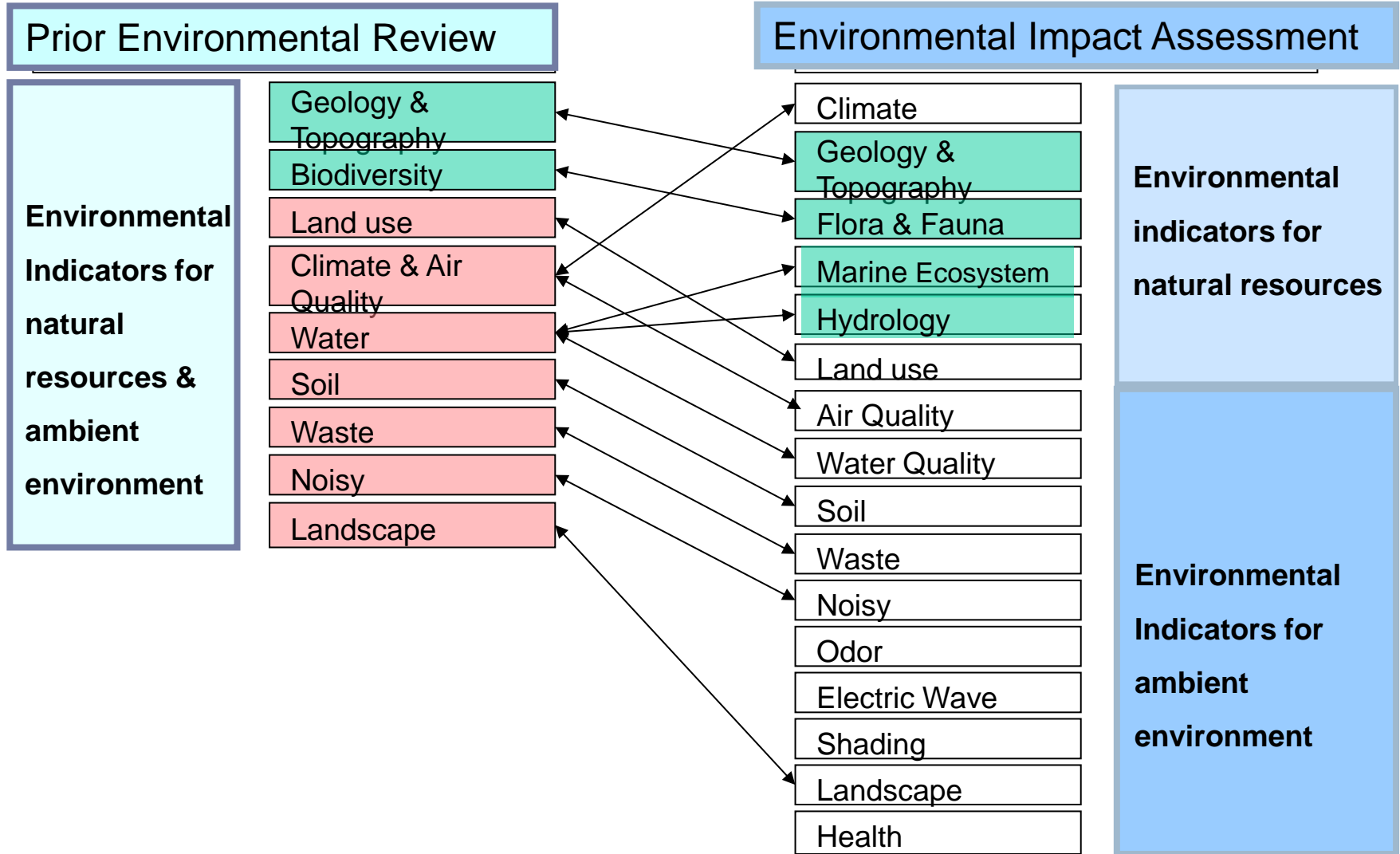
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EIA Procedure in detail



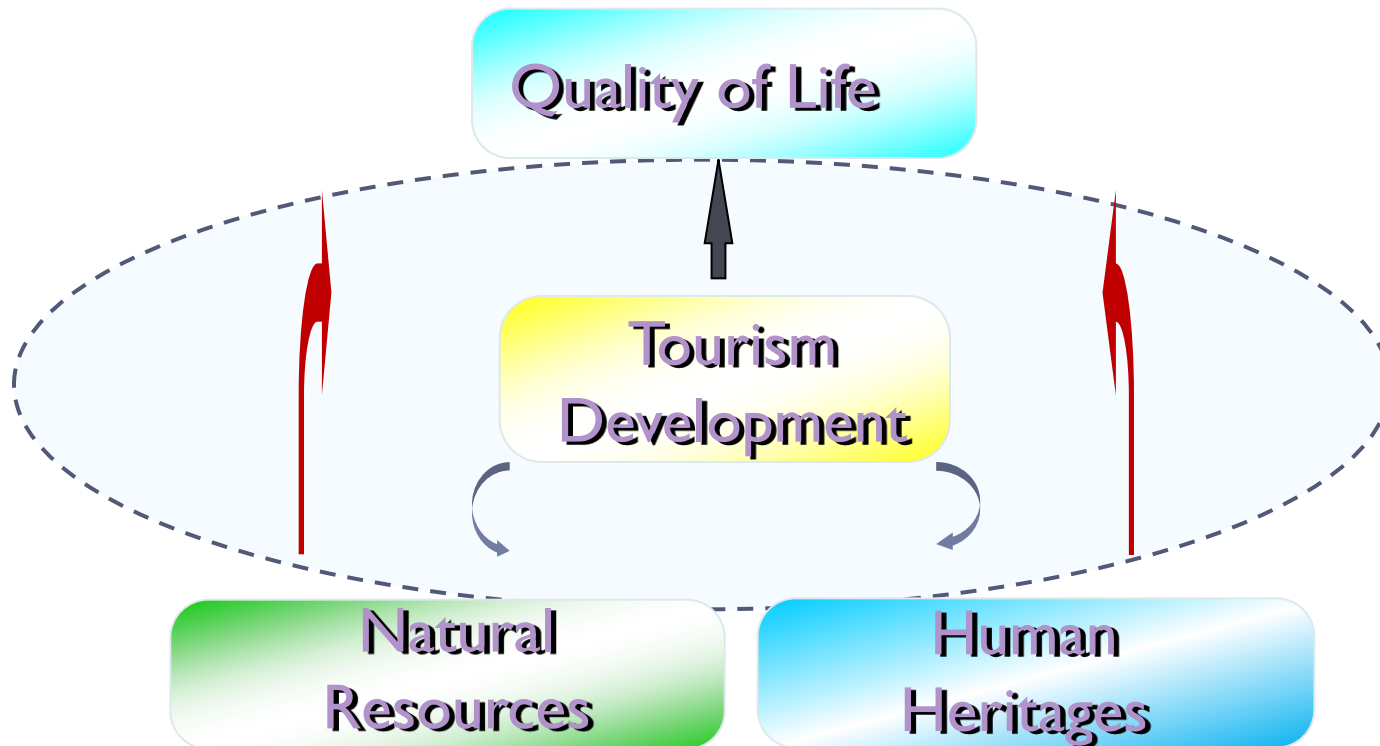
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Linkage of EIA & PERS Assessment Criteria



Impact Assessment is implemented

to mitigate degradation and depletion of natural resources and human heritage, with a view to improve the quality of life.



**Case study*:
Sustainability Evaluation of Ecotourism Sites:**

10 Ecotourism Sites in Korea

* Lee Jae-Hyuck & Lee Hee Yeon, “A Study on the Development of the Indicator Sets for Evaluating the Sustainable Ecotourism and It’s Application” Graduate School of Environmental Studies, Seoul National University, Korea, 2012.

OVERVIEW

10 Ecotourism sites in Korea (2010)



OVERVIEW

10 Ecotourism sites in Korea (2010)

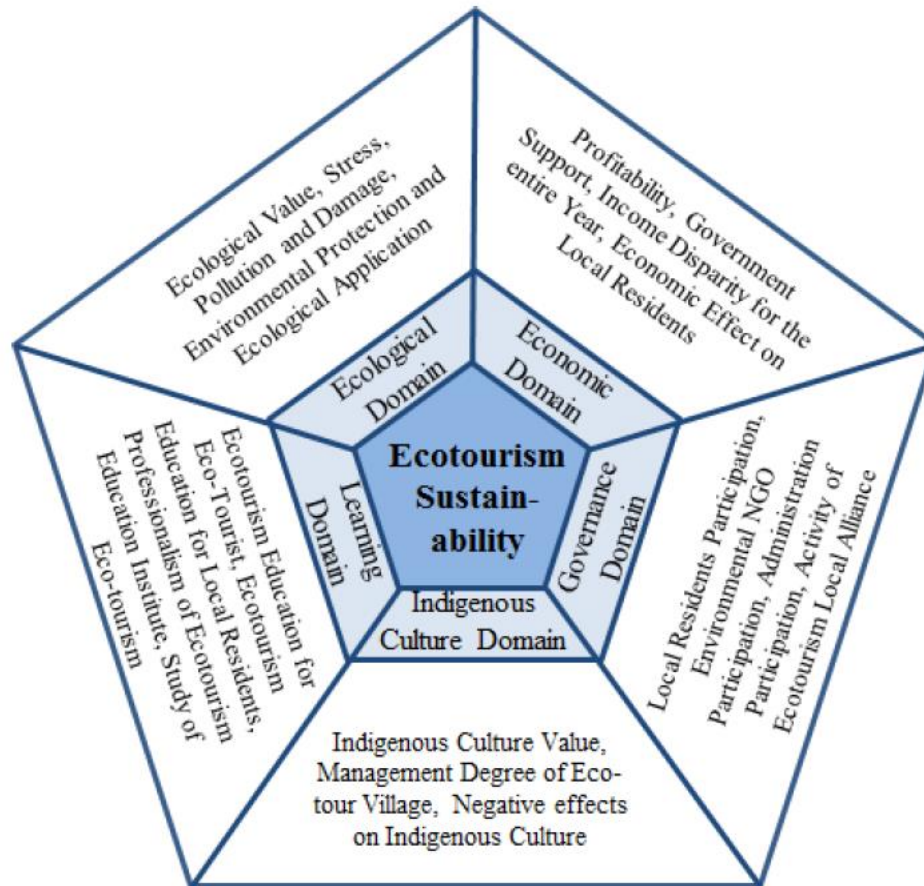
Type of resources	Site	Description
Coastal resource	1. Taean sand dune named 'shin-du'	Taean has the Korea's only sand dune called shindu. It functions as buffer zone connecting inland ecosystem and shore ecosystem.
Habitat for migratory species	2. Seosan habitat for migratory named 'Cheonsu bay'	Seosan has the habitat for 300 kinds of and 4 million migratory birds, including endangered species such as spectacled teals and spoonbills.
Coastal wetland	3. Suncheon wetland named 'Suncheon bay'	Suncheon bay is one of 5 main wetlands in the world.
Inland wetland	4. Changnyeong wetland named 'Upo'	'Upo' is formed 140 million years ago, and it is shrouded in ancient mystery.
Fossil/caves	5. Pyeongchang Baekryong caves and Dong river	There are the Dong river and Baekryong cave which was formed by surface movement and corrosion action of underground water and limewater.
Mountain/river	6. Yeongju 'Jarak' path in 'Soback mountain'(source of 'Nackdong' river)	Graceful figure and inherit culture is preserved well.
	7. Jinan 'Mashil' path(source of 'Seomjin river')	There are the 'demi' spring, the source of 'Seonjin' rivers, and beautiful mountains and streams.
DMZ(De-Militarized Zone)	8. Paju 'Chopyung island'	'Chopyung island' called the last 'Galapagos islands' on earth, is in the process of being selected as UNESCO biosphere reserves.
	9. Hwacheon	Hwacheon is the Tourist development area named 'Peace & Life Zone'.
Island	10. Jeju parasitic volcano and 'seogwi' dock biosphere reserves	This area is selected to UNESCO biosphere reserves.

Source: <http://www.eco-tour.kr>.



Indicators for Sustainability Evaluation

36 Variables for 19 Indicators in 5 Domains



. The framework for the indicator sets of evaluating the sustainable ecotourism.

KOREAN CASE

Indicator Set for **Ecological Domain**

Domain	Indicator	Details	Measurement Variables
Ecological Domain	Ecological Value	Diversity of Species	Whole Species Rare and Indigenous Species
		Vegetable Group	Floristic Score Number of Colony Vegetable Evaluation Grade Age of Stand Degree of Green Naturality Topographic Assessment
		Ecological Nature Status	Ecological Nature Status Grade
	Stress	Eco-tourist on Peak Season	Density of Tourist Year on Year Rate of Tourist
	Pollution and Damage	Water Pollution Level	BOD(Biochemical Oxygen Demand)
	Environmental Protection & Ecological Application	Designation for Reservation for Natural Resources	Designation Grade of Domestic and Overseas Country
		Environmental Effects Evaluation	Number of Pre-Environmental Appraisals

Source : Lee Jae-Hyuck & Lee Hee Yeon (2012)



KOREAN CASE

Indicator Sets for **Learning & Culture** Domains

Domain	Indicator	Details	Measurement Variables
Learning Domain	Eco-tourism Education for Eco-Tourist		Facility Infra Score of Ecotourism Education and Experience Score of Ecotourism Program
	Eco-tourism Education for Local Residents		Number of Ecotourism Education Program to Local Residents
			Number of Local Residents Participate in Ecotourism Education
			Score of Manpower Excavation and Training
	Professionalism of Eco-tourism Education Institute		Number of Education Institute Number of Employees in Education Institute
Study of Eco-tourism		Number of Studies about Each Eco-tour Sites in the National Assembly Library	
Culture Domain	Indigenous Culture Value		Reservation Designation Level of Cultural Properties
	Management Degree of Eco-tour Village		Number of Eco-tour Village Designated by Ministry of Environment
	Negative effects on Indigenous Culture		Civil Complaint Number of Eco-tourism in Each Local Government

Source : Lee Jae-Hyuck & Lee Hee Yeon (2012)



KOREAN CASE

Indicator Sets for **Governance** & **Economic** Domains

Domain	Indicator	Details	Measurement Variables	
Governance Domain	Local Residents Participation		Local Residents Participation Grade to Eco-tourism	
	Environmental NGO Participation		Number of Local Environmental NGO in Each Eco-tour Site	
	Administration Participation			Official Grade of Eco-tourism in Each Eco-tour Site
				Propel Will Grade of Eco-tourism Official in Each Eco-tour Site
				Number of Regulation and Ordinance in Each Eco-tour Site
				Meeting Number of Council for Eco-tourism in Each Eco-tour Sites
	Activity of Eco-tourism Local Alliance		Grade of Eco-tourism Negotiation System	
Economic Domain	Profitability		Eco-tour Sites Entrance Fee of Year Round in 2009	
	Government Support		Ministry of Environment and Culture and Tourism and Local Government Support Amount	
	Income Disparity of Year Round		Ratio of Tourist Number between Peak Season & Off Season	
	Economic Effect to Local Residents		Budget of Eco-tourism Local Gabber Wage and Support	

Source : Lee Jae-Hyuck & Lee Hee Yeon (2012)



Methodology of Evaluation

Data Sources and Standardization

- ▶ DB: 5 domains, 19 indicators and 36 variables for 10 Sites
- ▶ Source: Ministry of Environment, Ministry of Culture, Sports and Tourism
 - ▶ National Survey Report on Environmental GIS
 - ▶ Environmental Statistical Information System, etc.
 - ▶ Tourism Information System, etc.
- ▶ Source: NSO, Local Government, Survey Data, etc.
 - ▶ Annual Statistics
 - ▶ Budget Survey
- ▶ Standardization $S_i = \frac{I_i - MIN_i}{MAX_i - MIN_i}$
 - ▶ Maximum Score Linear Scale Transformation [0~1]

KOREAN CASE

Evaluation Result for the Site 9 “Hwacheon”

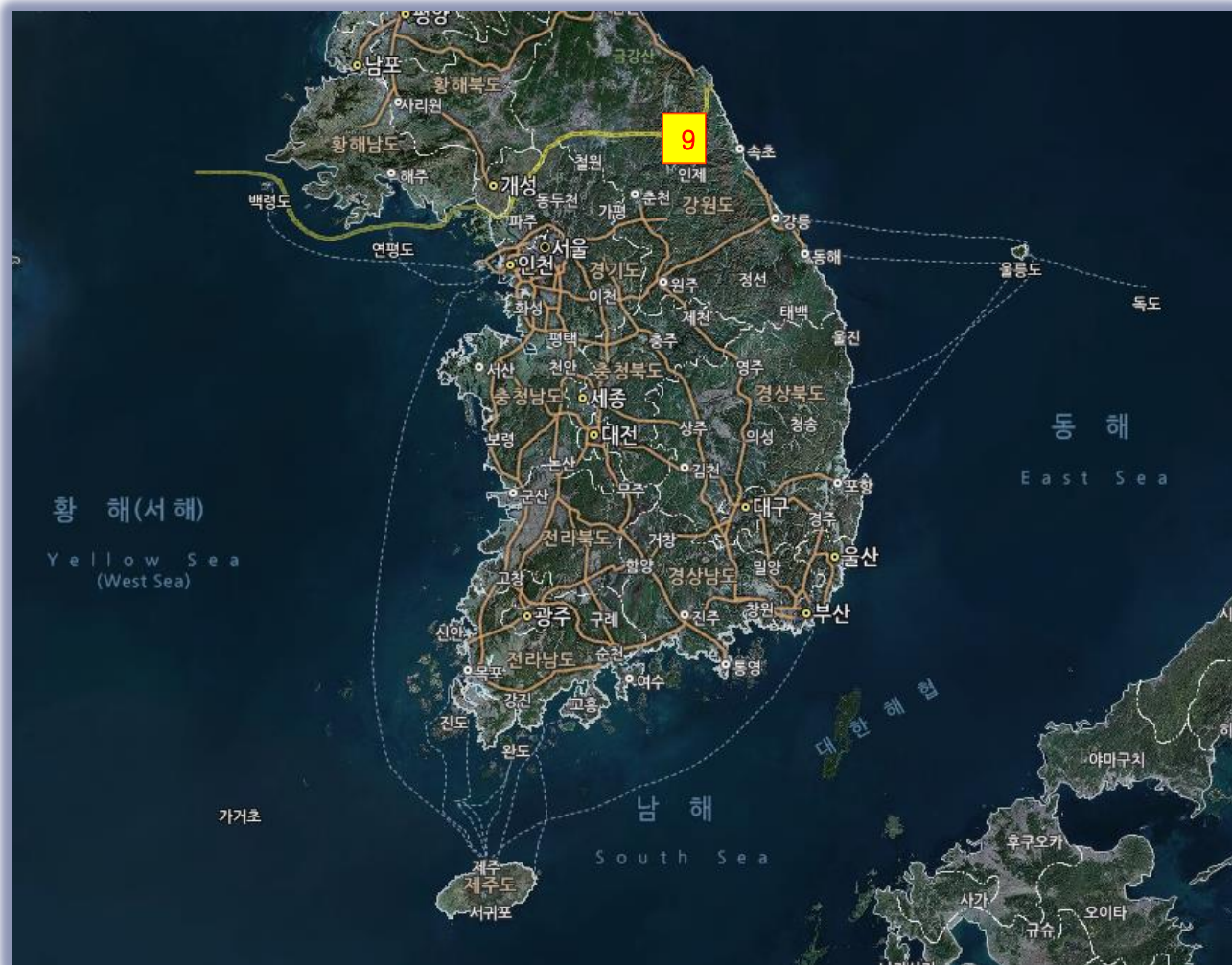
Domain	Score	Indicator	Score	Detail Indicator	Score
Ecological	0.78	Ecological value	0.77	Diversity of Species	0.62
				Vegetable Group	0.69
				Ecological Nature Status	1.00
		Stress	0.73	Eco-tourist on Peak Season	0.73
		Pollution & Damage	0.97	Water Pollution Level	0.97
Environmental Protection & Ecological Application	0.65			Designation of Reservation for Natural Resources	0.50
				Environmental Effects Evaluation	0.80
Learning	0.42			Eco-tourism Education for Eco-tourist	0.63
				Eco-tourism Education for Local Residents	0.57
				Professionalism of Eco-tourism Education Institute	0.46
				Study of Eco-Tourism	0.02
Indigenous Culture	0.54			Indigenous Culture Value	0.75
				Management Degree of Eco-tour Village	0.13
				Negative Effects on Indigenous Culture	0.73
Governance	0.55			Local Residents Participation	1.00
				Environmental NGO Participation	0.13
				Administration Participation	0.45
				Activity of Eco-tourism Local Alliance	0.63
Economic	0.21			Profitability	0.00
				Government Support	0.77
				Income Disparity of Year Round	0.05
				Economic Effect to Local Residents	0.00

Source : Lee Jae-Hyuck & Lee Hee Yeon (2012)



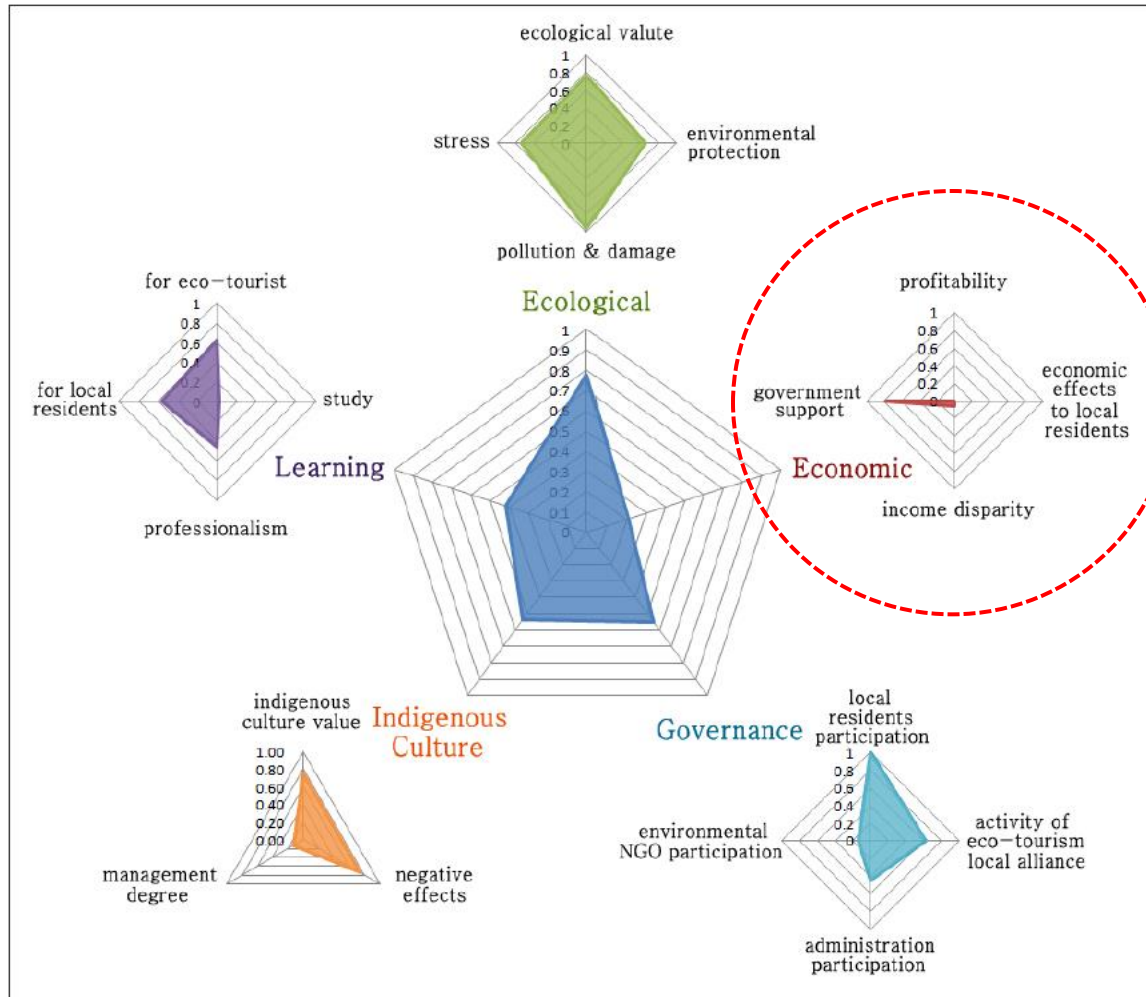
OVERVIEW

10 Ecotourism sites in Korea (2010)



KOREAN CASE

Sustainability Diagram of the Site 9 “Hwacheon”



Source : Lee Jae-Hyuck & Lee Hee Yeon (2012)

Hwacheon Site

- ❖ **Weakness in Economic Domain**
- ✓ **Near the DMZ**
- ✓ **Strong regulation on development project**
- ❖ **Protest from Local Residents**
- ✓ **lack of local economic benefit from the site**
- ✓ **low profitability**

KOREAN CASE

Evaluated Composite Scores of the 10 Sites

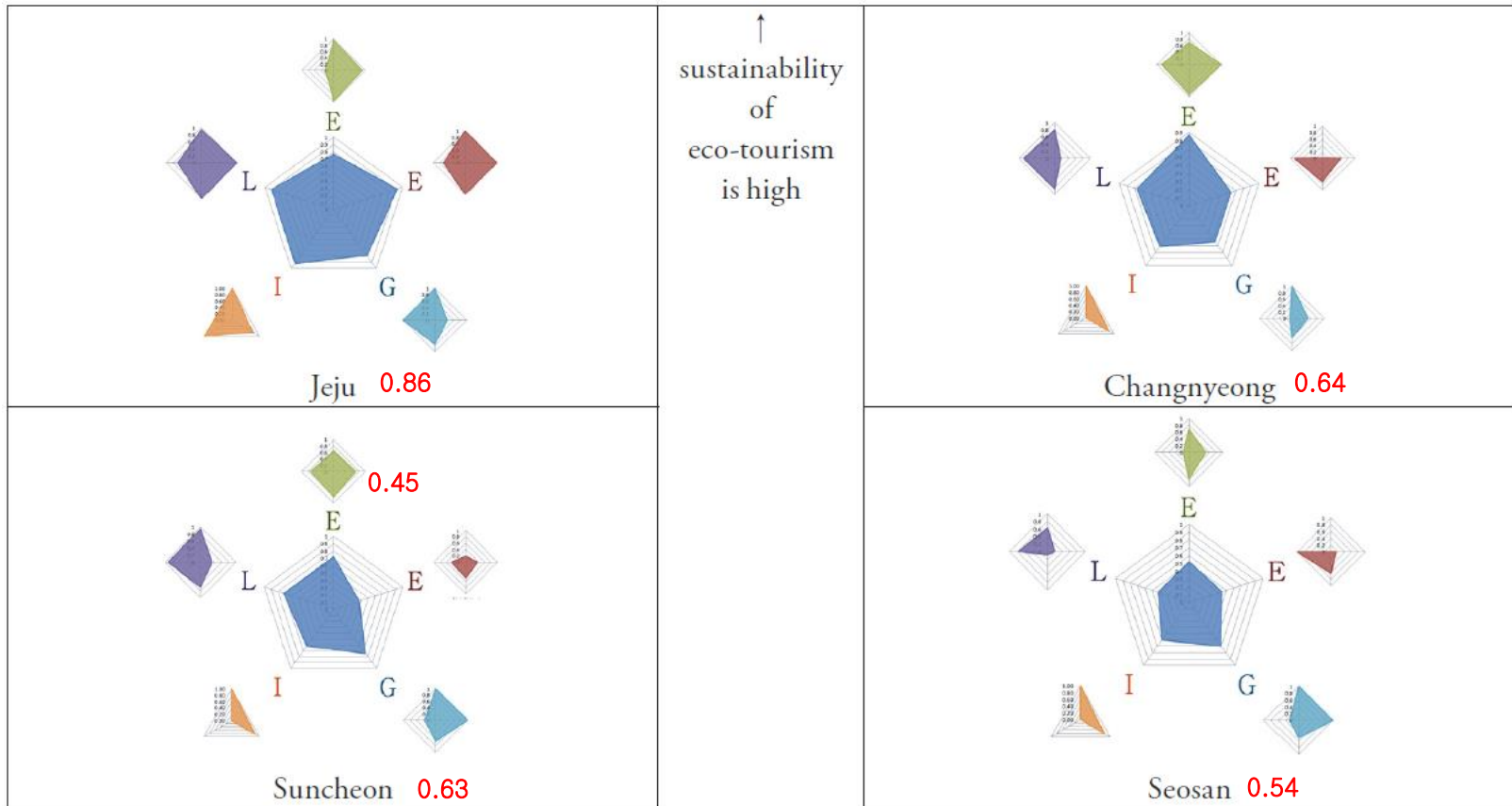
order	site	composite score	domain				
			ecological	learning	indigenous culture	goverance	economic
1	Jeju	0.86	0.77	0.90	0.91	0.78	0.92
2	Changnyeong	0.64	0.86	0.67	0.61	0.54	0.54
3	Suncheon	0.63	0.72	0.72	0.62	0.75	0.37
4	Seosan	0.54	0.52	0.42	0.60	0.69	0.44
5	Hwacheon	0.50	0.78	0.42	0.54	0.55	0.21
6	Pyeongchang	0.49	0.72	0.53	0.48	0.53	0.22
7	Jinan	0.45	0.56	0.45	0.62	0.62	0.09
8	Taeon	0.41	0.63	0.42	0.33	0.50	0.15
9	Yeongju	0.40	0.63	0.27	0.40	0.55	0.15
10	Paju	0.36	0.57	0.24	0.39	0.46	0.14

Source : Lee Jae-Hyuck & Lee Hee Yeon (2012)

* A rank sensitivity test based on AHP (Analytic Hierarchy Process) have shown that the rankings of the sites are quite stable.

KOREAN CASE

High Sustainability Sites: 10, 4, 3, 2



Source : Lee Jae-Hyuck & Lee Hee Yeon (2012)

▶ Coastal sites show higher sustainability.

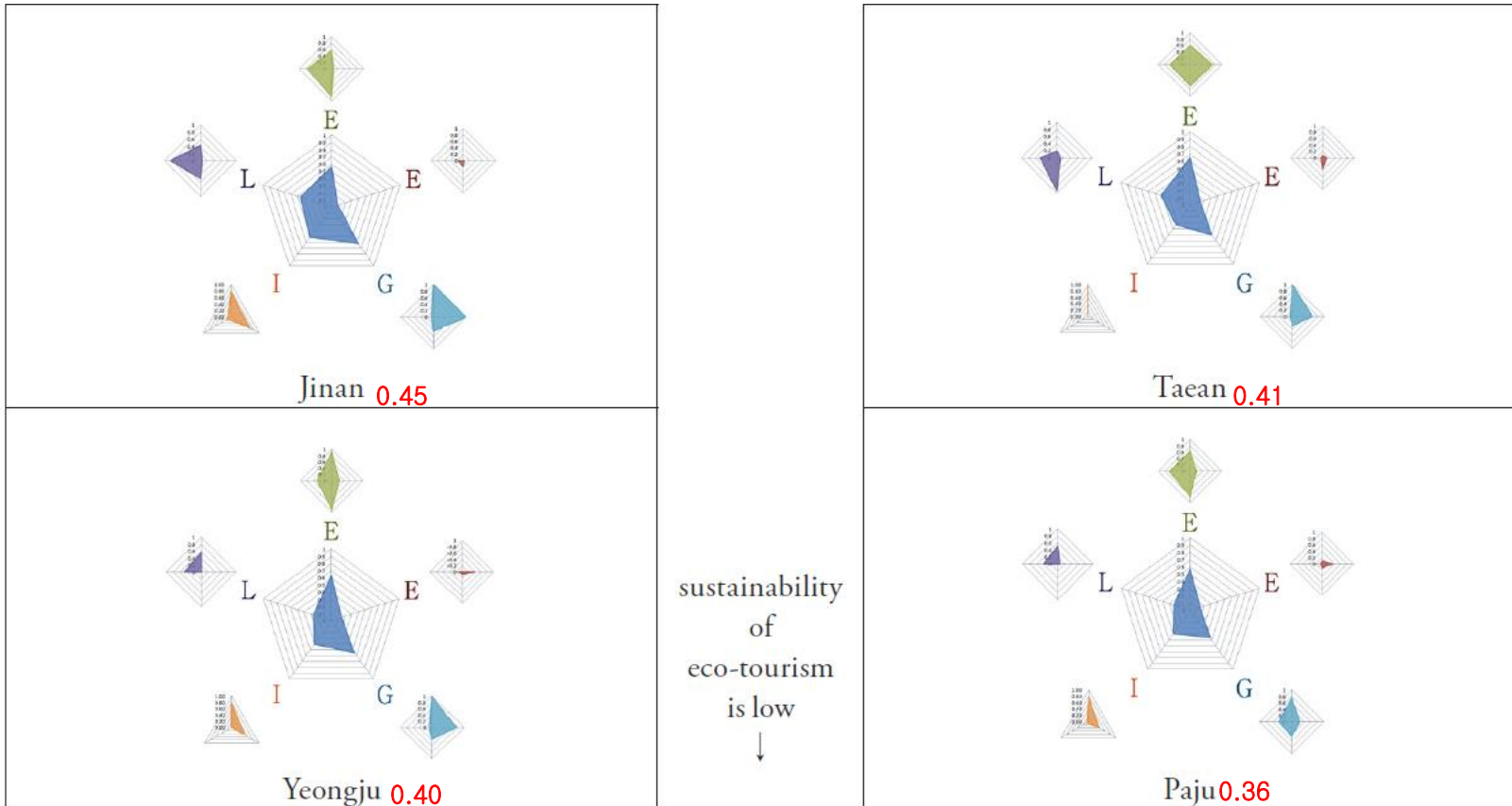
OVERVIEW

10 Ecotourism sites in Korea (2010)



KOREAN CASE

Low Sustainability Sites: 7, 1, 6, 8

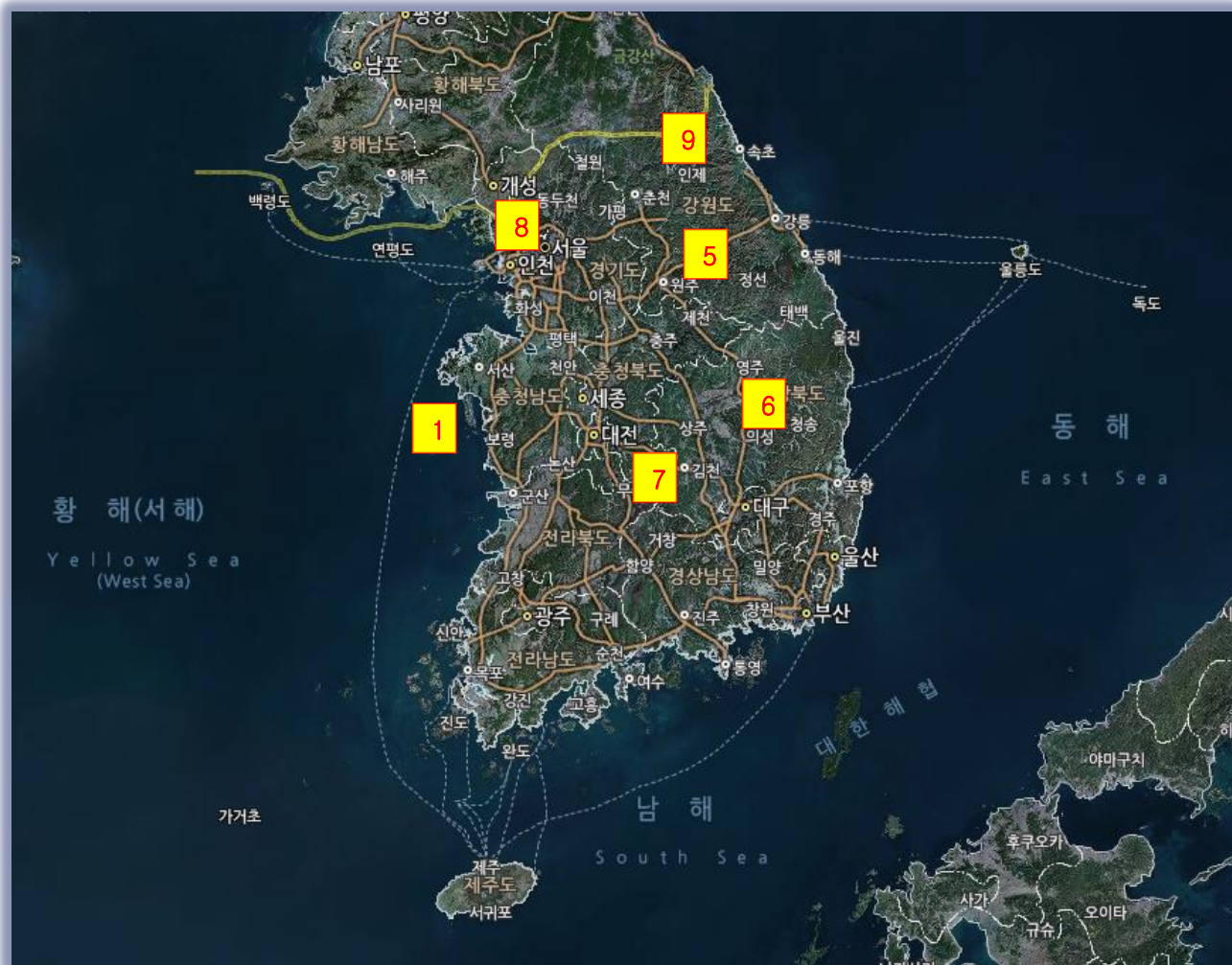


Source : Lee Jae-Hyuck & Lee Hee Yeon (2012)

▶ Inland mountainous sites show lower sustainability.

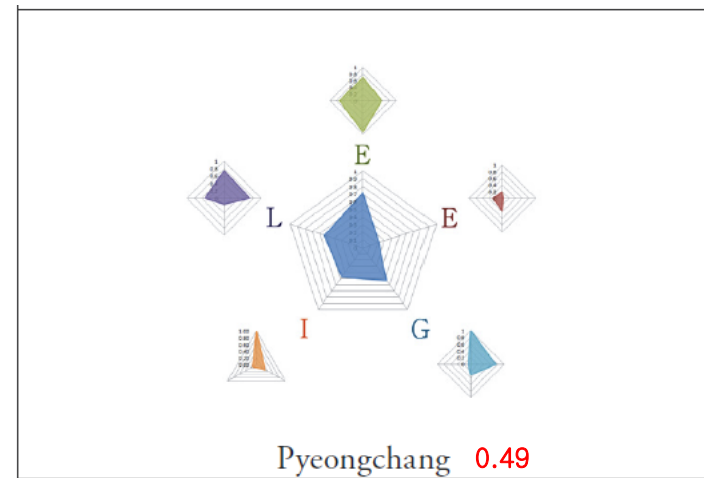
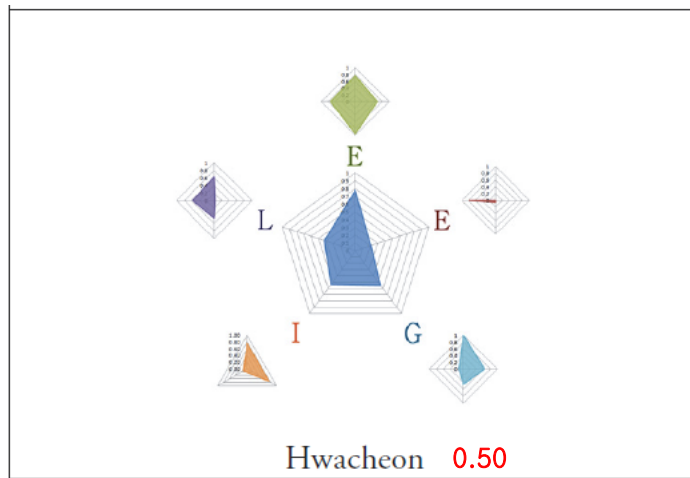
OVERVIEW

10 Ecotourism sites in Korea (2010)



KOREAN CASE

Medium Sustainability Sites: 9, 5



Source : Lee Jae-Hyuck & Lee Hee Yeon (2012)

- ▶ Most ecotourism sites suffer from low economic viability of the project.
- ▶ Ecological consideration, Governance and Cultural dimensions are more prominent factors of sustainability.
- ▶ **Average of Domains: 0.68**(Ecological) > **0.60**(Governance) > **0.55**(Cultural) > **0.50**(Learning) > **0.32**(Economic)

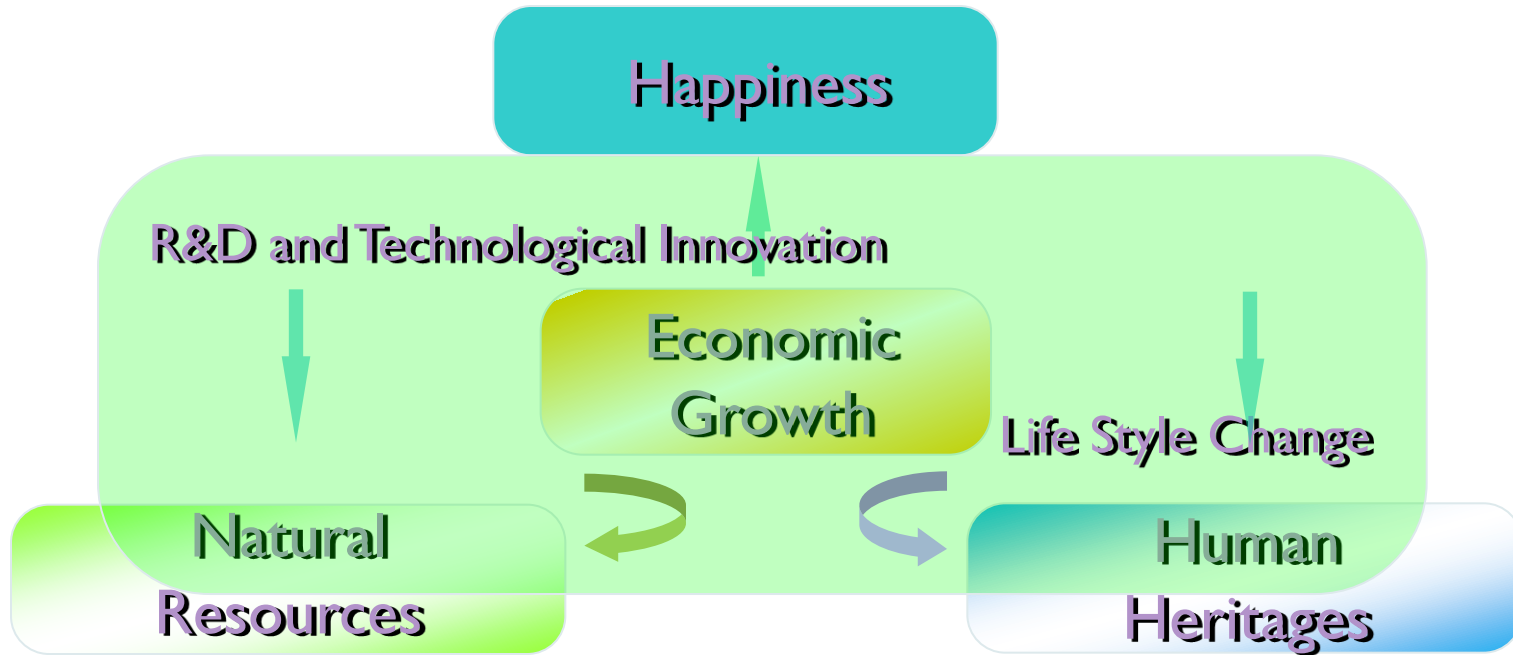
Tips for Future Works

as to Ecotourism

we need to stand on the KEY MESSAGE:

We need a planet/humanity responsible civilization.

Make an economic growth minimize degradation and depletion and contribute to the creation of new resources and heritage with innovations and life style change.



GENERAL RATIONALE

For a sustainability of our civilization

- ▶ To overcome the challenges posed by the growth in the globalized world economy, it seems inevitable
 - ▶ to **develop green technologies** and to introduce them into major economic sectors leading growth and jobs, like tourism
 - ▶ to **change life-style** based on environmentally sound and sustainable production and consumption pattern
 - ▶ and to **share the experiences to build a planet responsible civilization for a sustainable humanity...**
-



Needs to consider

Quality of Development?

- Environmentally Sound and Sustainable Development -

Green Economy in micro-economics: market prices, investment

- Quality of economy in short-term and mid-term

Green Growth in macro-economics: investment, technology, R&D,

- Quality of growth, mid-term and long-term

Global, Regional, National and Local Program for a
Planet Responsibility

Take note of

Objectives of Development?

- Inclusive Human Civilization -

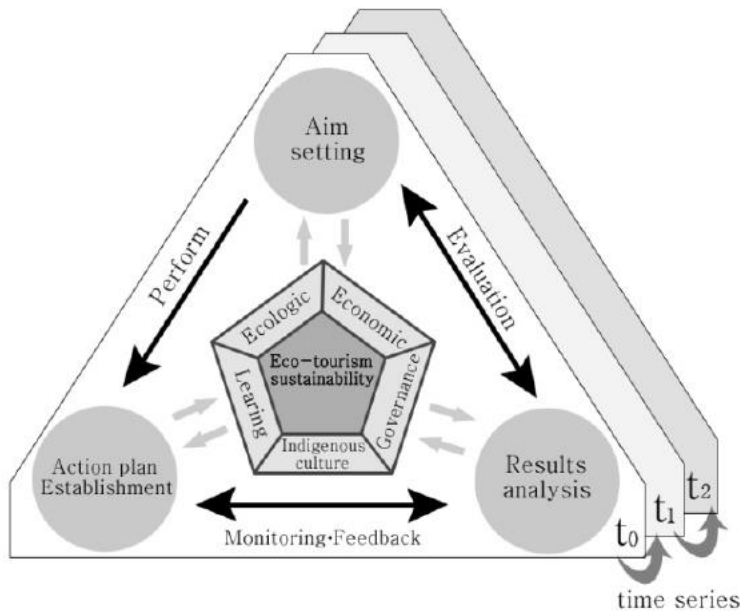
SD in National agenda – jobs, (re)distributional, social policies

Global agenda - gap closing initiatives between South and North

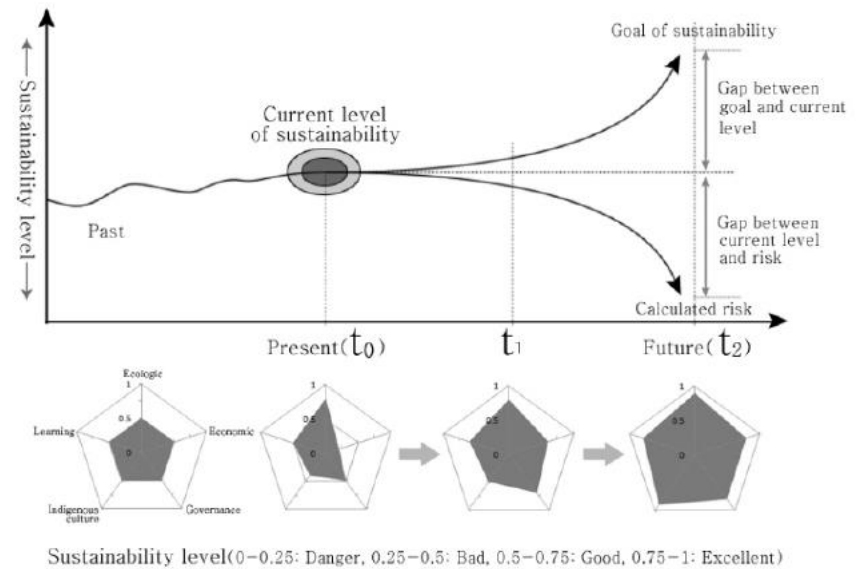
Global, Regional, National and Local Program for a
Humanity Responsibility

ACTION to be taken: Introduce an evidence based decision making system on tourism

Benefit of Sustainability Evaluation System



Source : Lee Jae-Hyuck & Lee Hee Yeon (2012)



- ▶ **Institutionalization of SES** is essential for greening tourism development and increasing sustainability of ecotourism, as it helps **evidence based policy decision making** by providing **integrated comparative analysis on different impacts of tourism.**

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United Nations Office for Sustainable Development - UNOSD

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Welcome to United Nations Office for Sustainable Development



unosd.org

WELCOME

UNOSD is dedicated to be a respected source and broker of sustainable development knowledge. It also supports research and provides high-quality training to developing country governments and other stakeholders in implementing sustainable development efforts.



The Office is managed by the [Division for Sustainable Development \(DSD\)](#) of the [United Nations Department of Economic and Social Affairs \(UNDESA\)](#).

[Read more](#)

UNOSD STEERING COMMITTEE MEETING

The second meeting of the Steering Committee of the United Nations Office for Sustainable Development (UNOSD) will take place at UNOSD office premises on 5 March 2013. The Steering Committee will review the progress made to-date by the Office in implementing its 2012-13 work programme, and discuss activities to be carried out during the remainder of 2013, among other issues.

[Read more](#)

ANNOUNCEMENTS

- New [Sustainable Development Knowledge Platform](#) by UNDESA now online!
- New website on the [United Nations in the Republic of Korea](#)

NEWS

EXPERT CONSULTATION

UNOSD is organising an Expert Consultation on Building Knowledge and Capacity for Sustainable Development in post Rio+20 Era, together with partner institutions, 6 - 8 Mar 2013 Incheon, Republic of Korea



[Read more](#)

NSDS WORKSHOP 2012

UNOSD organized an International



UNOSD is ...

United Nations Office for Sustainable Development (UNOSD)

- ✓ established in 2011 as a project office of UN, is **to support governments of the member countries in implementing sustainable development agenda**: Agenda 21, the Johannesburg Plan of Implementation, and outcomes of Rio+20.
- ✓ managed by the **Division for Sustainable Development (DSD)** of the United Nations Department of Economic and Social Affairs (**UNDESA**).
- ✓ **supported currently by the Republic of Korea**: Ministry of Environment, City of Incheon, etc.
- ✓ **uniquely positioned**, institutionally as well as geographically to play a key role in the **dissemination and adoption of sustainable development policy and practices in Post-Rio era**.

UNOSD Promotes...

- ✓ **Knowledge exchange**: through its SD knowledge portal and platform, the office **eases** access to the knowledge on sustainable development and **facilitates** connections between researchers and practitioners, notably for **national and local policy making and programming**.
- ✓ **Research and policy analysis**: the office implements **assessing gaps in and designing solutions for** the implementation of critical sustainable development issues.
- ✓ **Capacity development**: the office provides **training materials, implementation toolkits and on & off line opportunities** for the capacity enhancement of developing countries in advancing the Post-Rio sustainable development agenda.
- ✓ **Partnerships**: the office nurture cooperation towards **efficient and effective partnership in sharing expertise, knowledge and capital from all stakeholders**.

a forthcoming consultative workshop...

- ✓ **“Measuring progress in Post 2015 Development Framework”**
 - ✓ **Post 2015 Development Framework**
 - ✓ **Urban Sustainability Indicators in SDGs**
 - ✓ **Environmental Welfare Indicators**
 - ✓ **...**

- ✓ **Time: 10-11 December, 2013**
- ✓ **Venue: UNOSD at Incheon, Rep. of Korea**
- ✓ **Information: www.unosd.org, kangs@un.org**

Waiting for your attention and contribution...

