

# How can we get tangible fruits for Climate and Development?: Co-benefits, Integrated Adaptation, and other key efforts

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# Co-benefits Approach

Combined delivery of development and mitigation benefits

- ▶ Cooperation with Ministry of Environmental Protection, China
- ▶ Cooperation with Ministry of Environment, Indonesia
- ▶ Workshop in Vietnam in May

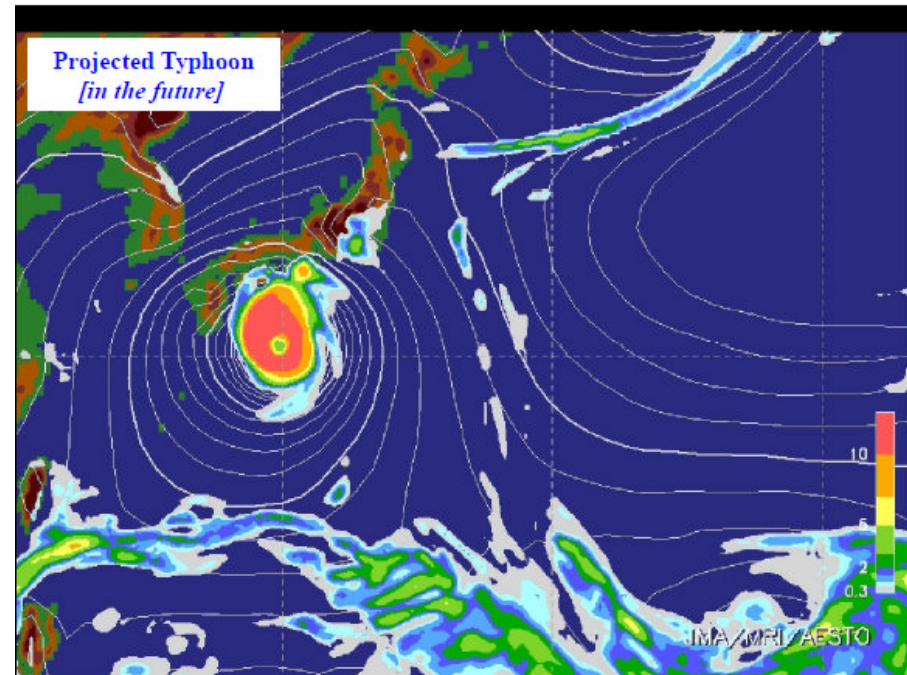


# Adaptation

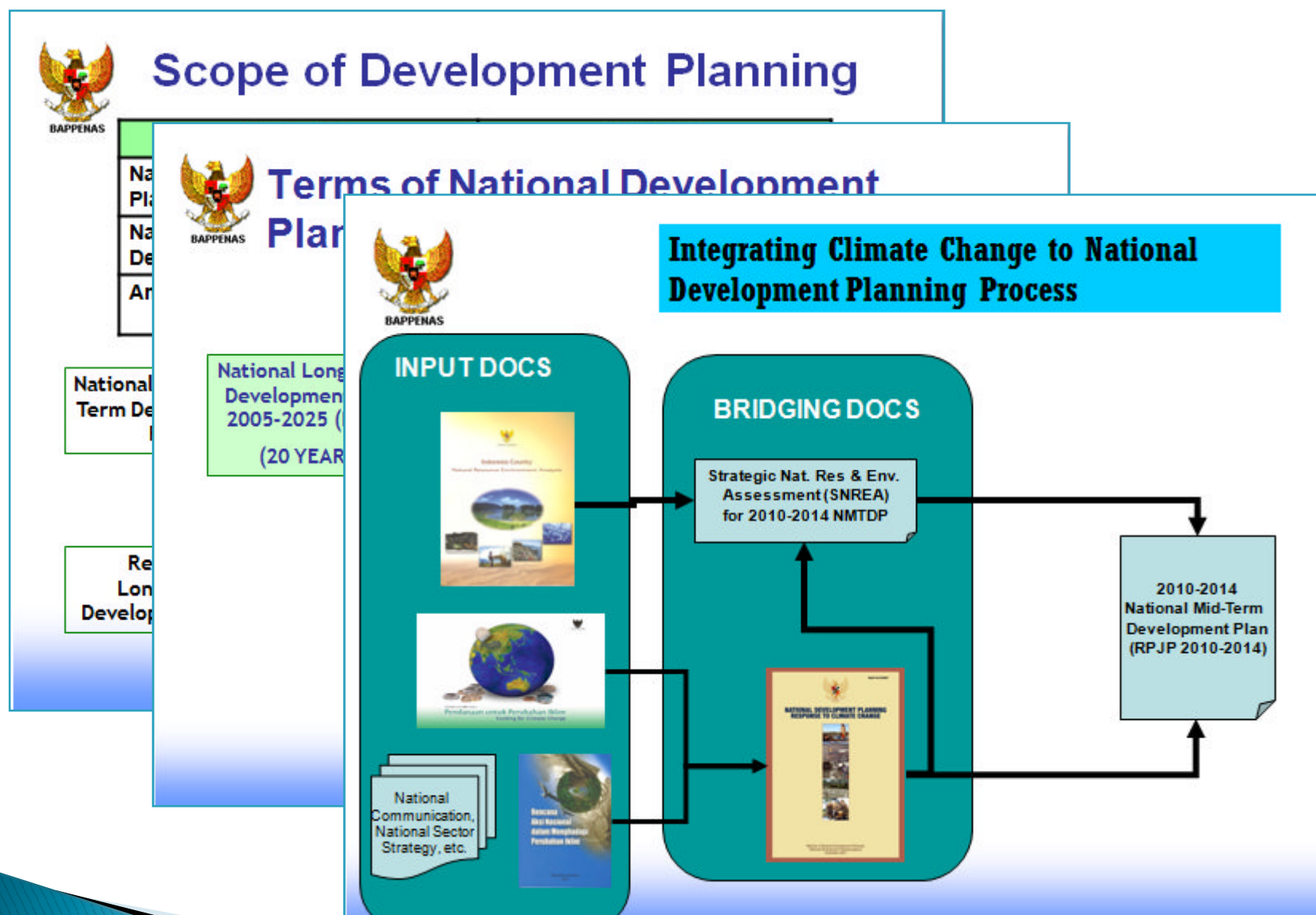
Based on sound scientific knowledge and mainstreamed in development/governance planning

The Earth Simulator is being utilized to help developing countries assist to make a plan.

- ▶ Japan's Cooperation with Argentina (JICA)
- ▶ WB/ADB's Cooperation with the Philippines



# Mainstreaming Process planned/ongoing



Source: Haryana, BAPPENAS Indonesia "Mainstreaming Climate Change into Development Planning"  
[www.climateanddevelopment.org](http://www.climateanddevelopment.org)



# Capacity-Building

(Co-benefits)

- ▶ CDM Capacity-building for co-benefits CDM (Ministry of the Environment, Japan: MOEJ)
- ▶ CDM Feasibility Study Scheme (MOEJ)

(Adaptation)

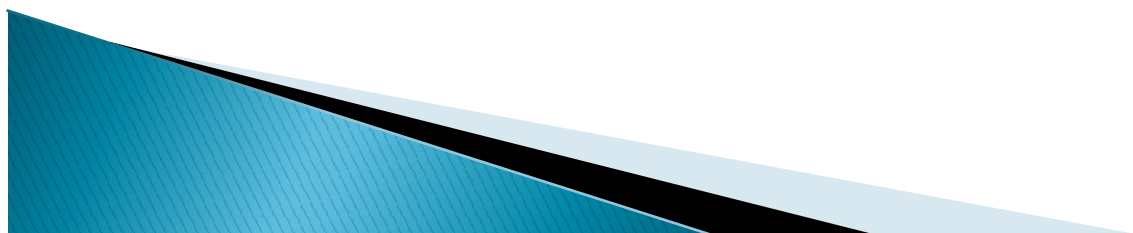
- ▶ JICA's Training for Adaptation
- ▶ Other programmes under discussion

(Overall Strategies)

- ▶ Dispatching Expert to Tuvalu (JICA & MOEJ)
- ▶ JICA's Training for Development of Climate Change Strategies
- ▶ Asia-Pacific Gateway to Climate and Development

# Asia–Pacific Gateway to Climate and Development

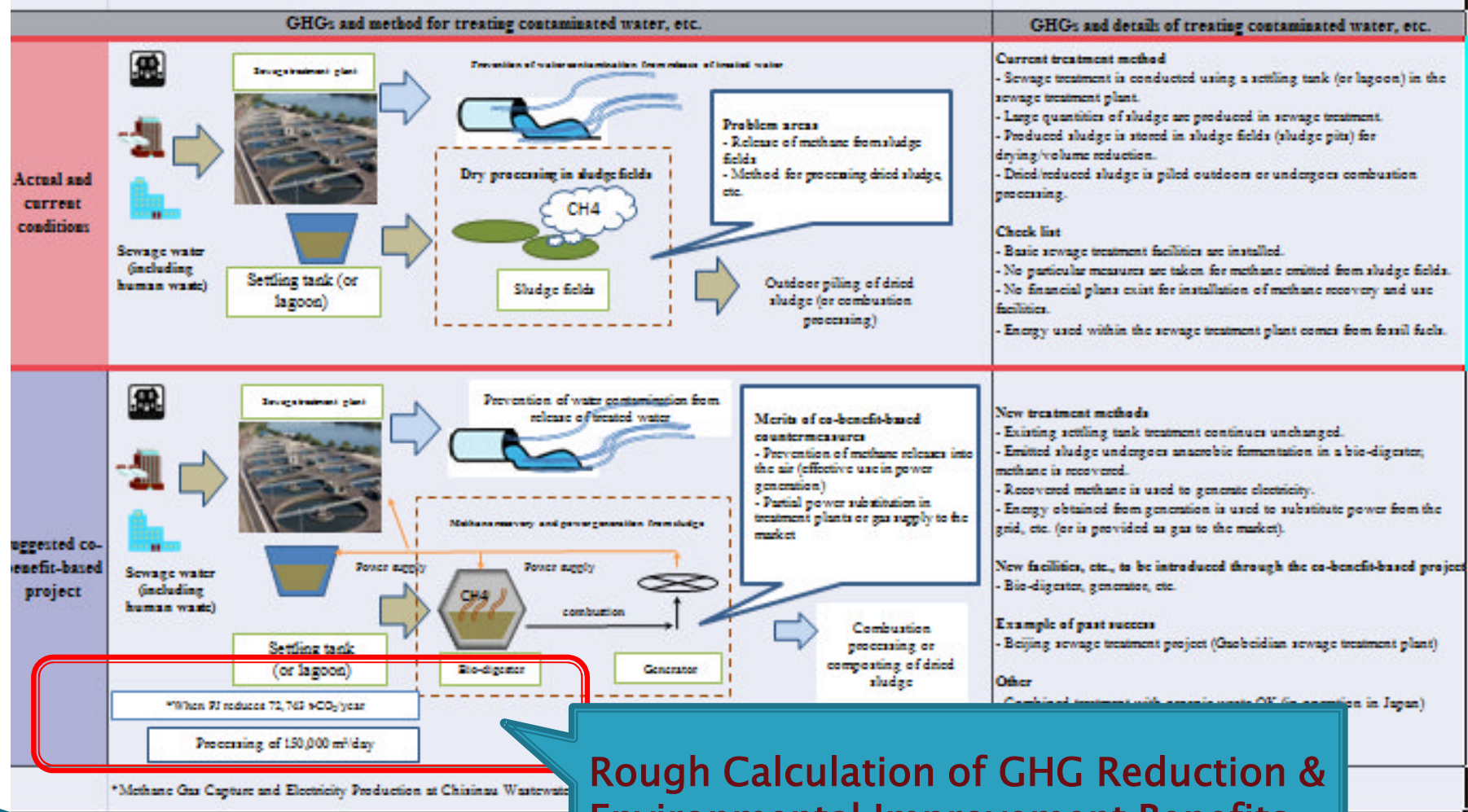
- ▶ Kick-off Meeting was held on 23 April, 2008 (MOEJ, UNESCAP & OECC)
- ▶ Regional Mechanism for Project formulation in co-benefits and adaptation
- ▶ Knowledge sharing at the Gateway Website.



# IDENTIFICATION OF AREAS FOR MORE INTENSIVE ACTIONS

## I. Co-benefit-based global warming countermeasures and CDM in the water treatment field

### 1) Co-benefit-based project as a measure for processing of sludge from sewage treatment plants



**Rough Calculation of GHG Reduction & Environmental Improvement Benefits**

# QUANTIFIED CO-BENEFITS EVALUATION METHODS MANUAL (GHG AND OTHER BENEFITS)

## Quantified Reduction Amount of Water Pollution Substances

	対象地点	対象地点 方法	イメージ図	対象地点	対象地点 方法	イメージ図
<p>無保護性橋に於ける河床陥没 （生活排水下水道など）</p>	<p>① 河床陥没地点が占める最小の陥没面積を占める河川の最下河段</p>	<p>① 河床陥没地点が占める最小の陥没面積を占める河川の最下河段でのCOD量を算定する</p>		<p>① 河床陥没地点が占める最小の陥没面積を占める河川の最下河段</p>	<p>① 河床陥没地点が占める最小の陥没面積を占める河川の最下河段でのCOD量を算定する</p>	
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Quantified GHG reduction amount

[illegible]

For Example, reduction of water Pollution substances and GHG are calculated ex ante. This will be a useful reference for project designing and development, so that GHG reduction and wastewater treatment will be both addressed at the same time.

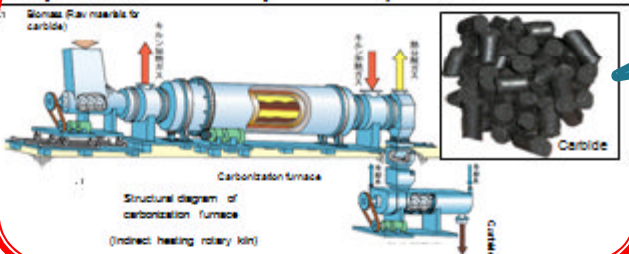


# TECHNOLOGY MAP

## (AVAILABLE TECHNOLOGY FOR GHG REDUCTION)

Recycling: Solid Fuel (RDF-related)			
Technical Chart (TC) <sup>1)</sup>			
Major technical classification	Recycling of waste	Reference number	
Middle technical classification	RDF manufacturing equipment	Company name	JFE Environmental Solutions Corporation

Recycling: Generation of Other Fuels and Carbonization			
Technical Chart (TC) <sup>1)</sup>			
Major technical classification	Renewable energy, etc.	Reference number	TC115-01
Middle technical classification	Biomass	Company name	IHI Corporation
Minor technical classification	Other (Biomass carbonization)	Date created / revised	2007/1001
Technology name	IHI biomass carbonization fuel generation system		
Overview of technology	<ul style="list-style-type: none"> <li>Technology that heats and carbonizes organic substances such as biomass in an oxygen-free state, and manufactures high-grade carbide fuel that can be used as an alternative to coal at power generation plants, etc.</li> <li>Even in cases where there are large amounts of chlorine in the raw materials, manufacturing of fuel with a low chlorine concentration is possible by washing the carbide with water, and it is also possible to make the carbide into pellets as necessary.</li> </ul>		
Conceptual diagram, etc.	 <p>Structural diagram of carbonization furnace (indirect heating rotary kiln)</p> <p>Carbide</p>		
Characteristics (Sales points)	<ul style="list-style-type: none"> <li>Although it depends on the properties of the raw material, since autothermal operation of the carbonization furnace is possible, there is no wasted use of fossil fuels.</li> <li>Since the calorific value of carbide is high and the chlorine concentration is low, and since it can also be used as an alternative for coal at existing power generation plants, carbide can be used in many ways, and many advances can be made for its use and application as well.</li> <li>Since carbide is used at power generation plants with high efficiency, it is more efficient comprehensively than waste incineration power generation, which has low efficiency.</li> <li>Since it is possible to reduce the usage amount of coal, which is increasing steeply in price, those using carbide can secure economic advantages in addition to reduction of greenhouse gases.</li> </ul>		
Development level	<ul style="list-style-type: none"> <li>Development stage: Carbonization technology, cleaning of carbide, and granulation technology has already been put to actual use.</li> <li>Practical evaluation stage: There are delivery records, focusing on wastes (*Refer to the "Results" column).</li> <li>Actual use stage:</li> </ul>		
Results	<ul style="list-style-type: none"> <li>2003: China city (65 t/d×2 furnaces, carbonization furnace+melting furnace).</li> <li>2003: Itoh Kasei Environmental Management Association (40 t/d×2 furnaces, carbonization furnace+melting furnace).</li> <li>2006: Electric Power Development Co., Ltd. (4.5 t/d×1 furnace, carbonization furnace).</li> </ul>		

General Flow of Process

Basic Figure of GHG reduction amount

# Some new developments in Japan's Carbon Market

- ▶ Increasing demand of carbon credits for carbon offsetting (Japan's voluntary market)
- ▶ Some private sector players show significant interest in “co-benefits projects”, rather than simple GHG reduction projects.
- ▶ MOEJ recently established “Japan Carbon Offset Forum (J-COF)”



# Thank you very much

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