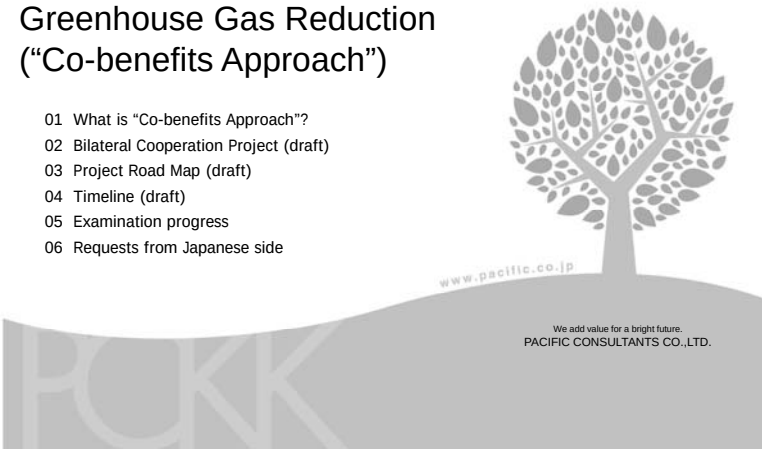


Bilateral Cooperation Project for Air Pollution Prevention and Greenhouse Gas Reduction (“Co-benefits Approach”)

- 01 What is “Co-benefits Approach”?
- 02 Bilateral Cooperation Project (draft)
- 03 Project Road Map (draft)
- 04 Timeline (draft)
- 05 Examination progress
- 06 Requests from Japanese side



01 What is “Co-benefits Approach”?

Co-benefits Approach means integrated efforts to address environmental pollution control issues and climate change mitigation concerns

This project aims to implement measures against air pollution

Ex1) High-efficient thermal power plant
- Exhaust gas reduction from power plant
- CO2 reduction by higher efficiency

Ex2) Energy saving of factory
- Exhaust gas reduction from factory
- CO2 reduction by energy saving

Ex3) Improving fuel economy of vehicle
- Exhaust gas reduction from vehicle
- CO2 reduction by fuel saving

Source: MOEJ

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02 Bilateral Cooperation Project between Myanmar and Japan (draft)

Installation of Co-benefit type technology

Institution-building for air pollution prevention

Human resource development

Two countries collaborate in the Co-benefit type project by packaging technology installation, institution-building and human resource development

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03 Project Road Map (draft)

Activity	2015	2016	2017
Technology installation	Proposing model installation project	Detailed planning of model project	Implementing model installation project
Institution building	Basic research of relevant institutions & regulations	Detailed study of Institutions proposed	Proposing institutions & regulations studied
Resource development	Information sharing about air pollution control technology	Study of management structure for air pollution control	Trial of management structure studied

Example)
Model project by installing air observation vehicle and developing environmental simulation map

Source: DKK-TQA CORPORATION website

Source: National Institute for Environmental Studies(NIES) website

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04 Timeline (draft)

Year	Month	Activity
2015	October	Exchange of opinions (this time)
	November (-December)	Further discussions
2016	January	Joint policy review meeting
	February	Study workshop in Myanmar Study tour in Japan Memorandums exchange

Joint policy review meeting
Discussion meeting about Myanmar's policies and institutions for air pollution control among policymakers and experts from two countries (Myanmar-Japan).

Study workshop in Myanmar
Information sharing between two countries: Japanese experts introduce Japanese products, institutions, and management structure, while Myanmar's experts explain of current status in Myanmar.

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05 Examination progress (traffic sector)

Rapid urbanization and heavy traffic

Current status

- ✓ Number of registered motor vehicles (including motorcycles) in Myanmar is increasing rapidly.
- ✓ Most of buses in Yangon are second hands and nowadays becoming older (aging)

Issues

- ✓ Heavy traffics have become common in Yangon and other urban areas
- ✓ CO2 emission and air pollution from old vehicle is pressing issue

Estimated number of vehicles registered in Myanmar (FY1989-2012)
Source: Japan Automobile Research Institute (JARI)

Transportation share in Yangon (FY2013)
Source: Japan Automobile Research Institute (JARI)

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05 Examination progress (traffic sector) [continued]

Rapid urbanization and heavy traffic

Typical pollution causes (example)

- Vehicle
 - Low-grade fuel (ex: leaded gasoline)
 - Inadequate maintenance system (ex: lack of car inspection system)
 - Inadequate regulation for second hand product (ex: car registration data unfilled)
 - Inadequate emission regulations (ex: lack or non-compliant of standards)
- Transportation infrastructure
 - Inadequate infrastructure (=> car speed degradation, heavier traffic)
 - Becoming car share higher among transportations (=> heavier traffic)

What is the real cause in Myanmar?

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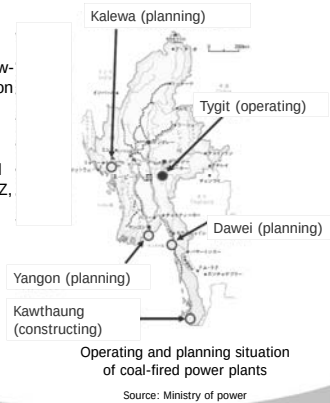
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05 Examination progress (industrial sector)

Increasing thermal power plant and heavy industrialization

- Current status**
- Lots of new thermal power plants with low-cost coal are in the planning stage (Yangon Port, Thilawa SEZ, Dawei SEZ, etc.).
 - Current main industry is light industry (garment industry, etc.), but heavy industry (cement, iron and steel, etc.) will accumulate in Thilawa SEZ and Dawei SEZ, etc.

- Issues**
- CO2 emission and air pollution from factories and power plants due to the accumulation of heavy industry and new coal-fired power plant.



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05 Examination progress (industrial sector)[continued]

Increasing thermal power plant and heavy industrialization

Typical pollution causes (example)

- Coal-fired power plant
 - Coal consumption increment due to new construction of coal-fired power plants
 - Aging of existing power plants (=> degrading power efficiency)
- Heavy industry
 - Inadequate countermeasures (ex: lack of dust collection system)
 - Aging of production process (=> degrading manufacturing efficiency)
 - Insufficient operating skill (=> degrading manufacturing efficiency)
 - Inadequate emission regulations (ex: lack or non-compliant of standards)

What is the real cause in Myanmar?

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06 Requests from Japanese side

Ministry of the Environment, Japan (MOEJ) is requesting

- ✓ Environmental Conservation Department of MOECAP becomes the counterpart of this bilateral cooperation project
- ✓ Myanmar government works together with MOEJ and Pacific Consultants toward memorandums exchange in February 2016
- ✓ Myanmar government jointly hosts the following events with MOEJ in January 2016

events	Participants from Myanmar side
Joint policy review meeting	Around 10 policy makers
Study workshop	50-100 of policymakers and experts

- ✓ Around 4 officials of Myanmar government visit Japan in February 2016 on study tour

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