



OECC and 3E Nexus

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President

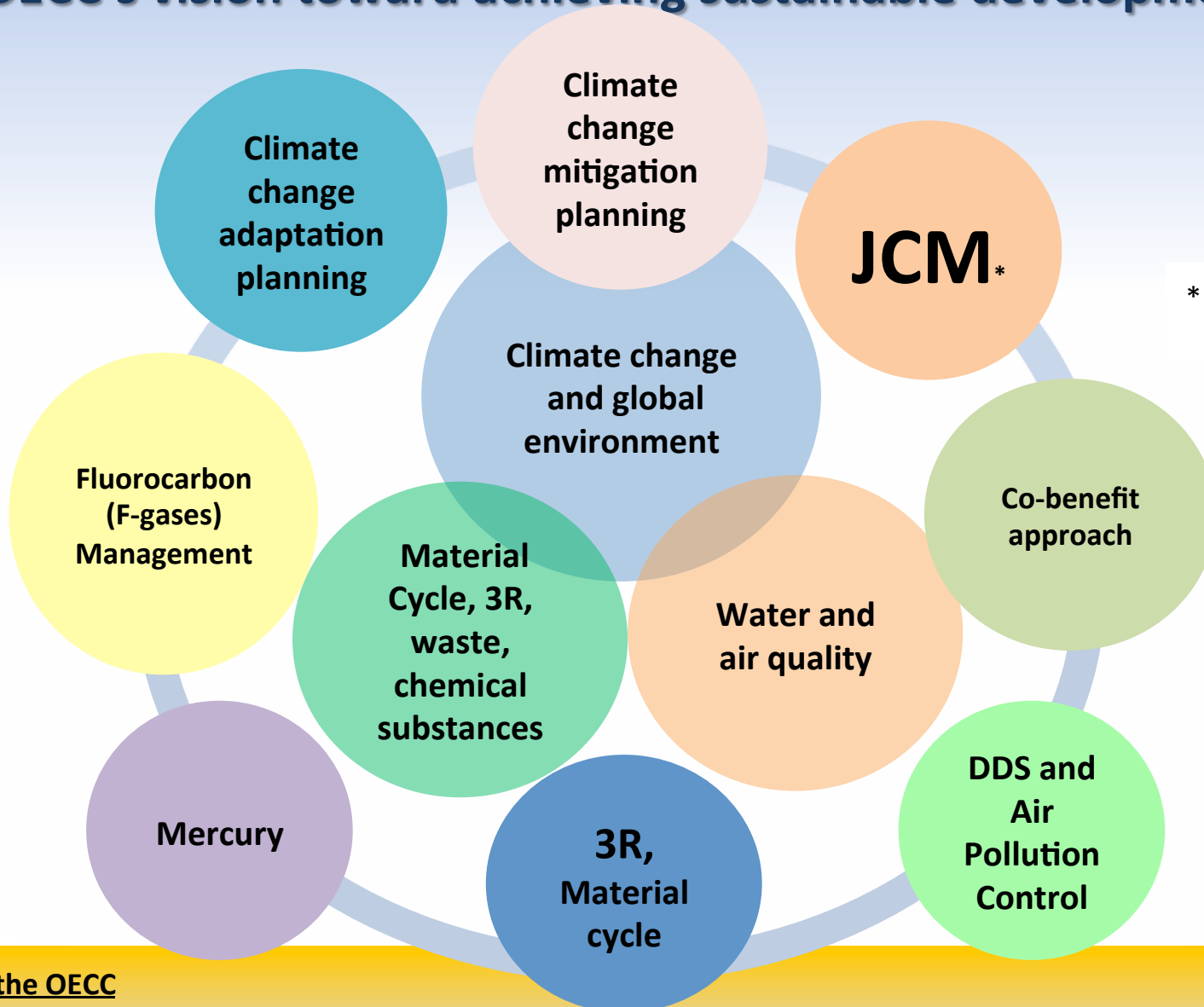
Overseas Environmental Cooperation Center
(OECC)

OECC:
Overseas Environmental Cooperation Center
(Since 1990)



1. **Mission:** To contribute to the International Community through policy-relevant research and capacity development activities toward realizing a sustainable society.
2. **Positioning:** OECC is a non-profit organization:
 - To provide the International Community with solutions to the sustainability challenges based on knowledge and experience on the ground in the developing countries;
 - To mobilize networks of professional institutions and experts in the field of sustainability not only from public but from private sectors.
3. **Partners:**
 - Governmental Agencies such as MOEJ and JICA,
 - International Organizations such as ADB and UN Agencies, and
 - Local Governments such as Yokohama and Fukui Pref.

OECC's vision toward achieving sustainable development



* Joint Crediting Mechanism

Strengths of the OECC

Environmental improvement with Japan's technologies

Partnership with international organizations

City-to-city cooperation in Asia

Partnership with developing countries

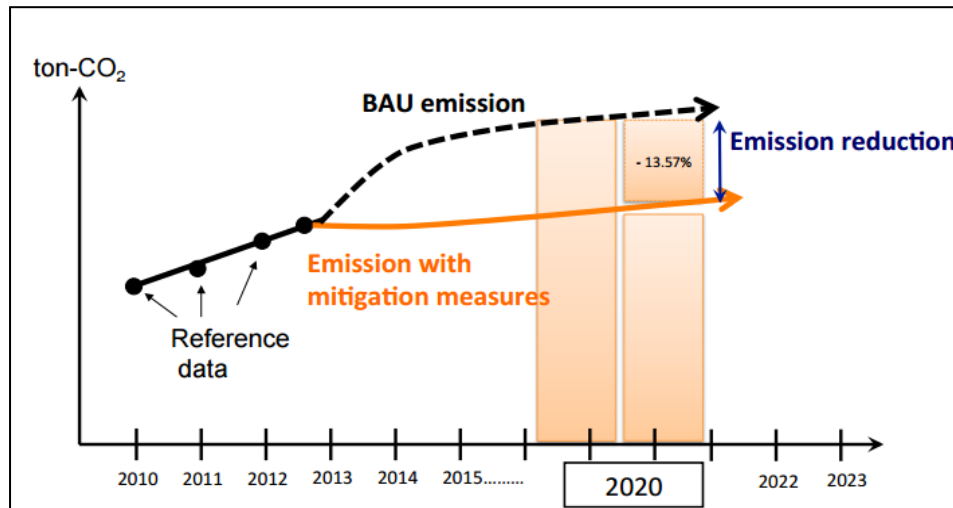
Partnership with private sectors

(a) Climate Change Master Plan at national and local levels :

- To assist developing Bangkok Master Plan on Climate Change 2013-2023 (JICA 2013-2015)
- To develop local capacity for nationally appropriate mitigation actions (NAMAs) in Cambodia, Laos, Mongolia and Viet Nam (MOEJ 2012-2015)

(b) Developing Climate Policy Actions and M&E/MRV:

- To monitor & evaluate Support Program to Respond to Climate Change (SP-RCC) in Viet Nam (JICA, the World Bank, AFD 2015)
- To develop SP-RCC's policy actions 2016-2020 (JICA, the World Bank, AFD 2017)



(a) Technology Needs Assessment (TNA) to respond to climate change in developing countries :

- To assist in identifying emission reduction potentials and developing MRV methodologies (Bangladesh, Cambodia, Chile, Costa Rica, Lao PDR, Mexico, Mongolia, Myanmar, Viet Nam 2013-2017)

(b) Pre-FS and FS in project potential sites

- To introduce building energy management system (BEMS) in Bangkok Public Hospitals (Thailand 2016)

(c) Technology transfer project development

- To introduce amorphous transformer in Viet Nam through the JCM (Viet Nam 2015-2017)

(d) Co-benefits technology transfer

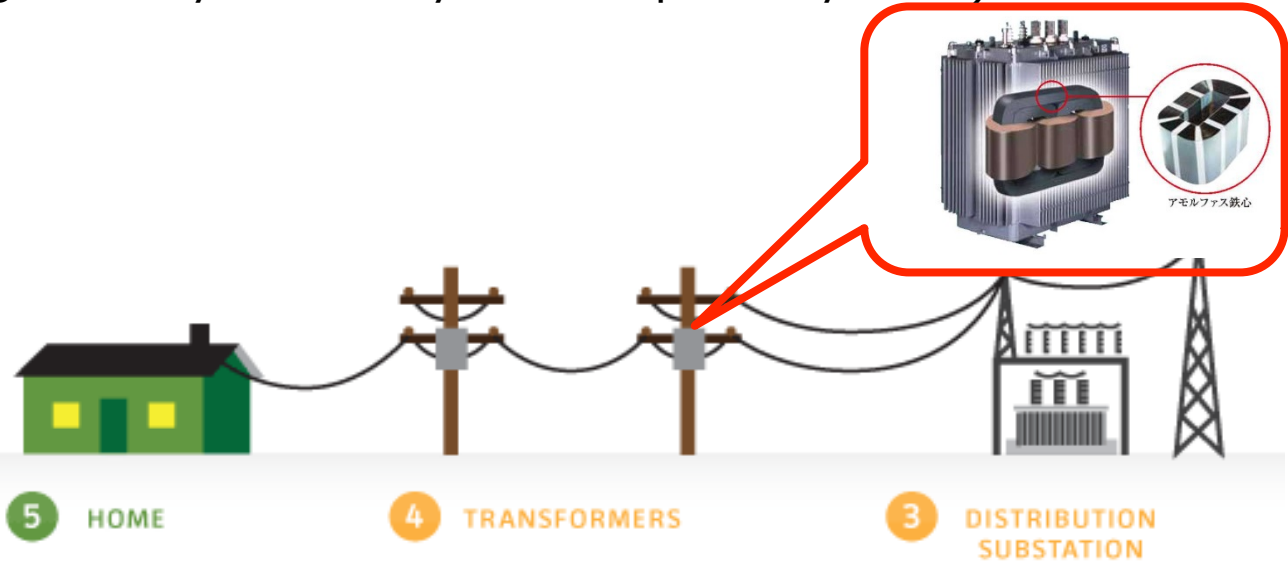
- To transfer co-benefits technologies for energy efficiency and air pollution abatement (Mongolia, 2015-2017)



Projects in Viet Nam

Projects introducing amorphous transformers in Viet Nam

(reducing standby electricity consumption by 60%)



Phase	Transformer Units	CO2 Reduction (tCO2/year)
The 1 st phase	1,618 units	632
The 2 nd phase	4,834 units	4,360
The 3 rd phase	5,943 units	3,047

This project will be able to reduce GHG emissions and to ensure economic saving by energy efficiency improvement.

Economic saving by introducing this project: **1.04MN USD/year** (saving of power loss)

Proposed Project for Energy Saving at Caustic Soda & Chlorine Production Plants in Latin America

Objective

To reduce electricity consumption in caustic soda & chlorine manufacturing process by introducing high-efficient and environmentally-friendly brine electrolysis system

Background

- Caustic soda & chlorine is used in a wide range of processes to create thousands of indispensable products around the world
- Caustic soda & chlorine is manufactured by electrolysis systems such as the mercury cell and the diaphragm cell but these conventional processes are inefficient and may cause environmental contamination by toxic substances

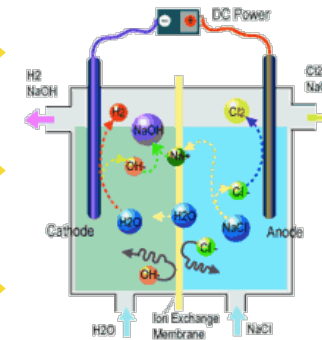


Ion-exchange Membrane (IM) technology by Asahi Glass Co., Ltd

20-30% reduction of energy use and CO2 emissions

15% reduction of labor costs for operation & maintenance

Mercury free and much less impact on the environment



Case study in Mexico



Source: Asahi Glass Co., Ltd

CO2 reduction potentials in Latin America & South America

Country	Mercury Process (1,000t-NaOH/y)	Diaphragm Process (1,000t-NaOH/y)	CO2 reduction by IM technology (tCO2/y)
Mexico	182	330	138,000
Colombia	0	38	6,000
Peru	130	0	82,000
Argentina	200	90	129,000
Brazil	240	1,100	231,000

High saving potential

Summary



1. 3E nexus can be addressed through the integrated approaches which OECC has tried to introduce in developing environmental cooperation projects;
2. 3E nexus should be mainstreamed in policy development at the national and local government levels; and
3. It is encouraged to disseminate good practices in addressing 3E nexus at the project levels.