

Taiwan in COP13/MOP3

Taiwan's GHG Management Development in the Industrial Sector

Voluntary Action beyond Kyoto Protocol

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www.epa.gov.tw

Road Map of Tackling Global Climate Change

- 1992: Establishment of Working Group for Environment Change under Executive Yuan
- 1998: First National Energy Forum held
- 2002: First Draft of National Communication
- 2004: Promotion of Voluntary Agreements
Demonstration projects for GHG verification
- 2005: Establishment of registration platform for industrial inventory
Second National Energy Forum held
- 2006: Reviewed Greenhouse Gas Reduction Bill by Legislative Yuan
Published CNS 14064
Establishment of Taiwan Industry Greenhouse Gas Office
- 2007: Drafting Taiwan Industry Voluntary Reduction Program
Set up of Taiwan Greenhouse Gas Designated Registry

Taiwan's GHG Management Development Schedule

2004-2005	2006	2007	2008	~	2012
develop inventory GHG protocol and methodology	TEPA GHG information system planning (information system, off-line operation and on-line reporting)	develop GHG pilot verification protocol and regulations	Established national GHG registration platform (July 2007 formally open)	National GHG registration platform pilot inventory registration (30 factories registered)	National GHG registration platform (verification/validation registration)
Promote industrial GHG voluntary agreement (by TEPA, IDB and EP)		Promote industrial reduction pilot (establish verification and validation methodology and principle)		GHG emission allocation plan	GHG cap and trade pilot

Major GHG Management Program Items in Taiwan

- Public awareness and information services
- Providing technical assistance
- Promote voluntary agreements and demonstration projects
- Establish greenhouse gases inventory, verification and registration mechanism

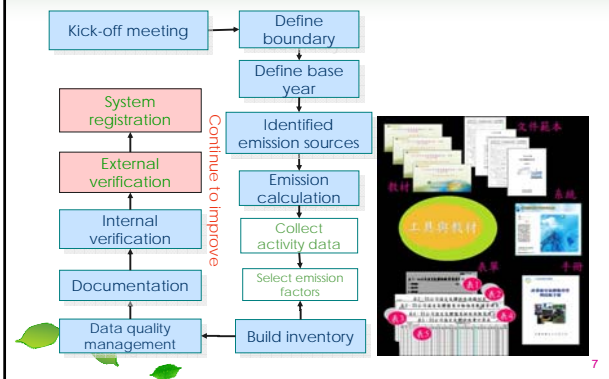
Public Awareness and Information Services

- Since 1994, more than 500 seminars and workshops related to GHG management have been held by various organizations in Taiwan.
- Several newsletters and periodicals related to GHG management were published.

Providing Technical Assistance

- The promotion of GHG management issues are closely related to the implementation of ISO 14000 EMS standards.
- All certified EMS technical assistance professionals are encouraged to take an advanced course on GHG issues prior to their application for renewal of registration.
- Videos, cross-sector guidance manuals, and sector-specific technical manuals have been made available for various industries.
- Provide various electronic tools related to GHG management to industries.

Established Protocols and Tools for GHG inventory



7

Promote Voluntary Agreements and Demonstration Projects

- Since 1994, IDB has initiated voluntary GHG management agreements (VAs) with various energy-intensive industries.
- Since 2004, TEPA has implemented voluntary GHG management agreements with TLA and TSIA.
- More demonstration projects have been initiated by industries in various sectors for the verification of GHG emission and the validation of GHG reduction.

8

Establish Greenhouse Gases Inventory, Verification and Registration Mechanism

- Inventory**
 - Adopt major international inventory specifications
 - Reference to ISO 14001 for GHG inventory management protocol
 - Promote bottom-up emission inventory to assist organizations finding potential reduction opportunities.
- Verification**
 - Promote external verification by third party to ensure the GHG emission baseline
 - Establish verification mechanism suitable for domestic needs and for international accreditation
- Registration**
 - Designation of national GHG inventory and reduction registration platform
 - The platform is built for voluntary registration to industrial sector

9

International Specifications for GHG Inventory

ISO <http://www.iso.org>
MOEA promulgated CNS 14064 (<http://www.bsmi.gov.tw>)

- ISO 14064-1**
 - For organization level GHG quantification
- ISO 14064-2**
 - For project level GHG quantification
- ISO 14064-3**
 - For GHG verification and validation
- ISO 14065**
 - For the needs by GHG verification and validation organization

www.ghgprotocol.org

- Standard**
 - Accounting principles
 - organization/operation scope
 - GHG emission report
- Guidance**
 - Target and inventory design
 - GHG emission sources
 - Inventory quality control
 - GHG emission verification
 - GHG reduction calculation and targeting
- Calculation tools**
 - Electronic devices
 - Based on IPCC and modified for industries after use
 - 2 categories: general industry tool and industry specific tool (15 industries)

10

Promotion of GHG Inventory Management for Various Industries

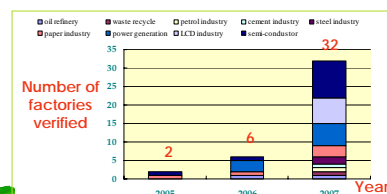
- 2004 TEPA completed GHG inventory to 12 factories in 6 major energy intensive industries, including petroleum, steel, power, photo-electronic, cement, paper and semi-conductor industries and established inventory tools.
- 2006 TEPA completed GHG inventory for 18 factories, including car manufacturers, waste incineration technology etc., and established pilot registration platform.
- 2007 TEPA completed 4 factories of energy intensive industry verification and established verification guidance.
- Involvement of national accreditation body (TAF) on GHG management.

11

GHG Verification and Registration

Item	under	Energy Bureau	Industrial Development Bureau**	EPA
category		Energy Industry	All Industries except energy	All business
format		File upload	On-line registration	File upload

** provided by IDB at the end of October, 2007



12

Current Situation and Future Expectation

- **The operation capability has been built, the next step would be actual reduction**
 - Taiwan GHG inventory pilot operation has gained experience from the demonstration and relevant tools, manual, system and registration platform have been established for industries to use. Therefore, the operation capability has been built.
 - The government is promoting for voluntary reduction at the present moment and collecting comments from all sectors to find mutual recognition on the reduction goal and acceptable process. The Industry must establish correct concept in achieving "actual reduction" as soon as possible.
- **To prohibit global warming through international experience and cooperation by joint reduction efforts**
 - Global warming is irreversible, it is the responsibility of all countries, enterprises, societies, and individuals to reduce GHG.
 - Taiwan is a member in the global village therefore we expect to exchange reduction experience with international organization, and promote for cooperation to fulfill our responsibility for GHG reduction.

