



# Clean Development Mechanism (CDM)



Thailand Greenhouse Gas Management Organization  
Ministry of Natural Resources and Environment

12 Oct 2011

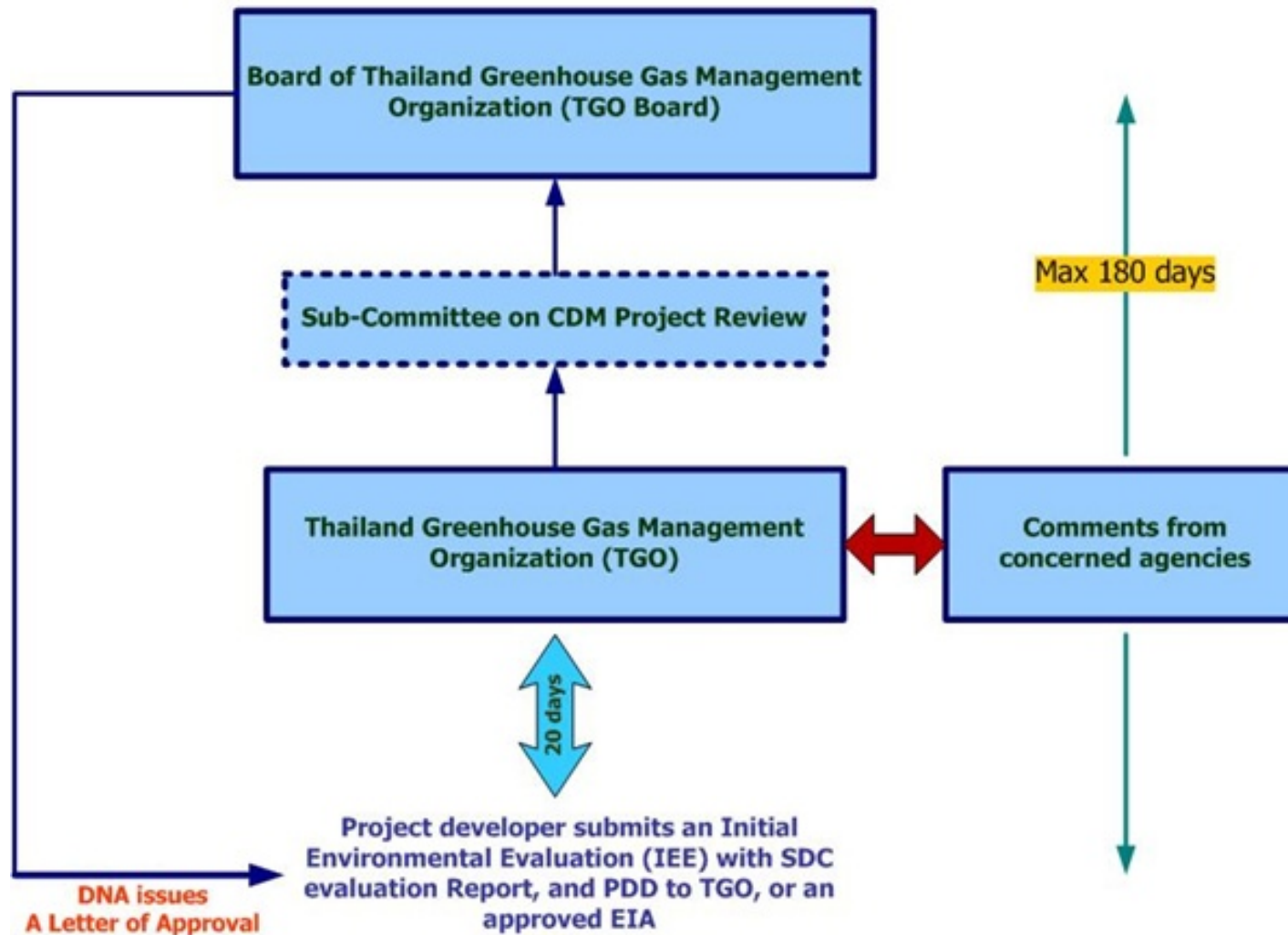
# CDM project approval process in Thailand



# Document required for CDM Approval

- ❑ **Project Design Document (PDD)**
- ❑ **EIA** (if required by Enhancement and Conservation of National Environmental Quality Act 1992) **or Initial Environmental Evaluation (IEE) and Self-Evaluation on Sustainable Development of CDM project in Thailand : IEE-SD Report**

# CDM Approval process in Thailand



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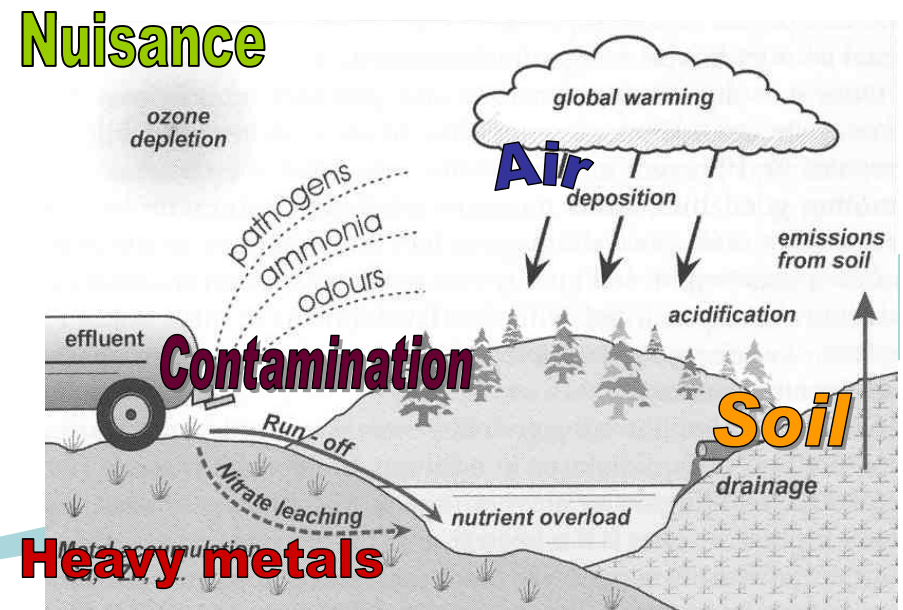
## **Sustainable development criteria for assessing a proposed CDM project in Thailand**



# Sustainable Development Criteria: SD

Major SD dimensions for project evaluation :

1. Natural resources and environment
2. Social
3. Technology
4. Economic



# Sustainable Development Criteria for CDM projects in Thailand

## Natural Resources & Environment

### Environment

- Greenhouse gas emission reduction
- Air pollution
- Noise pollution
- Odor
- Wastewater management
- Waste management
- Soil contamination
- Underground water contamination
- Hazardous waste management

### Natural Resources

- Water demand and utilization efficiency
- Soil/ coastal/ river bank erosion
- Green area
- Other indicators that have significant impact

## Social

- Public participation
- Support for local community development activities
- Workers and nearby community health

## Technology

- Technology development
- Operating plan after end of crediting period
- Capacity building for personnel

## Economic

- Employment
- Additional stakeholders income
- Renewable Energy utilization
- Energy efficiency
- Local content

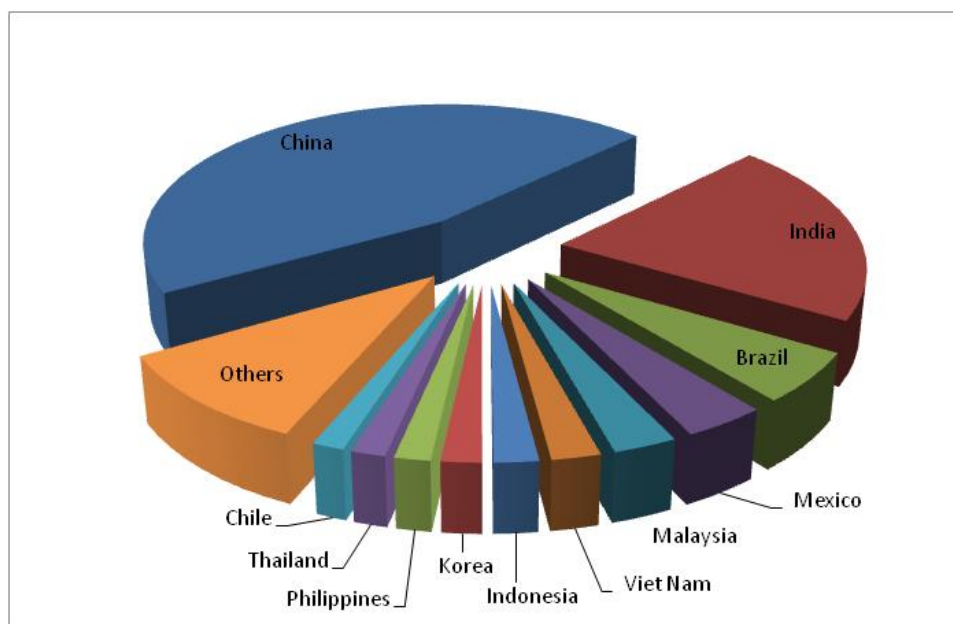
# Current CDM Status





# Registered CDM Project

- The number of registered CDM projects in the world = 3,518 projects
- Thailand is ranked tenth in the world for the no. of registered CDM project.

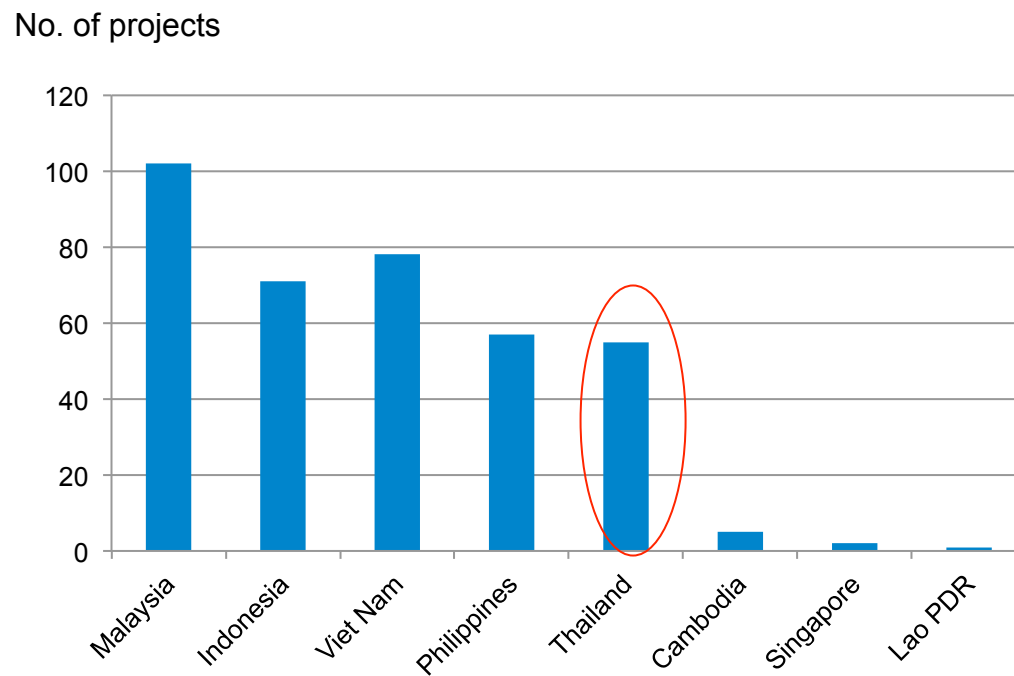


Country	No. of projects	%
China	1616	45.94
India	734	20.86
Brazil	196	5.57
Mexico	133	3.78
Malaysia	102	2.90
Viet Nam	78	2.22
Indonesia	71	2.02
Korea	64	1.82
Philippines	57	1.62
Thailand	55	1.56
Chile	51	1.45
Others	361	10.26
Total	3518	100

As of 11 Oct 11

# CDM Projects in ASEAN

- Thailand is ranked fifth in ASEAN for the no. of registered CDM projects.

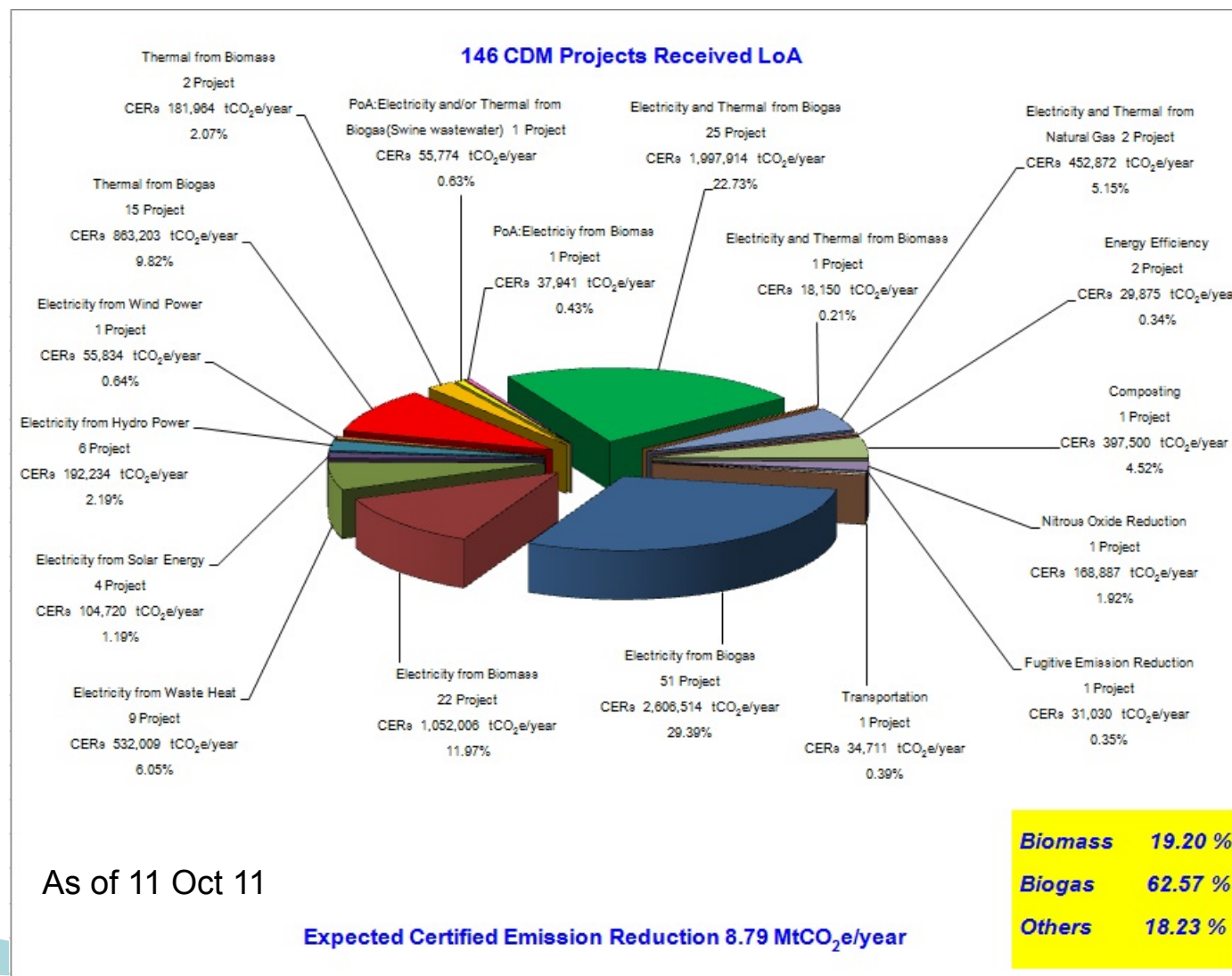


Country	No. of projects
Malaysia	102
Indonesia	71
Viet Nam	78
Philippines	57
Thailand	55
Cambodia	5
Singapore	2
Lao PDR	1

As of 11 Oct 11

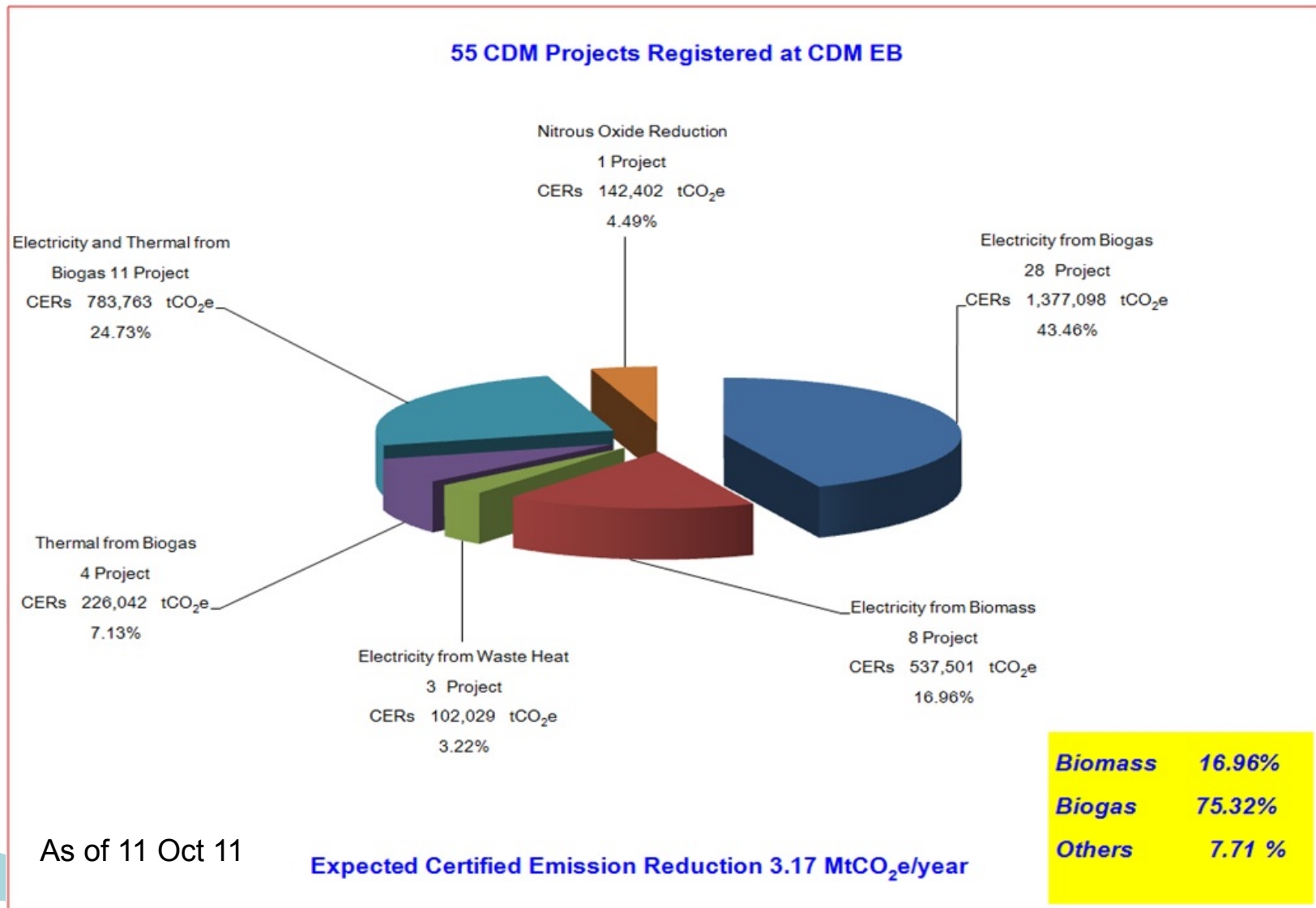
# CDM Projects approved by TGO

□ TGO issued Letter of Approval (LoA) for **146** projects. Expected average annual CERS is 8,790,095 tCO<sub>2</sub>e.



# CDM projects registered by EB

- The number of registered projects is **55** projects. Expected average annual CERs is 3,168,835 tCO<sub>2</sub>e.



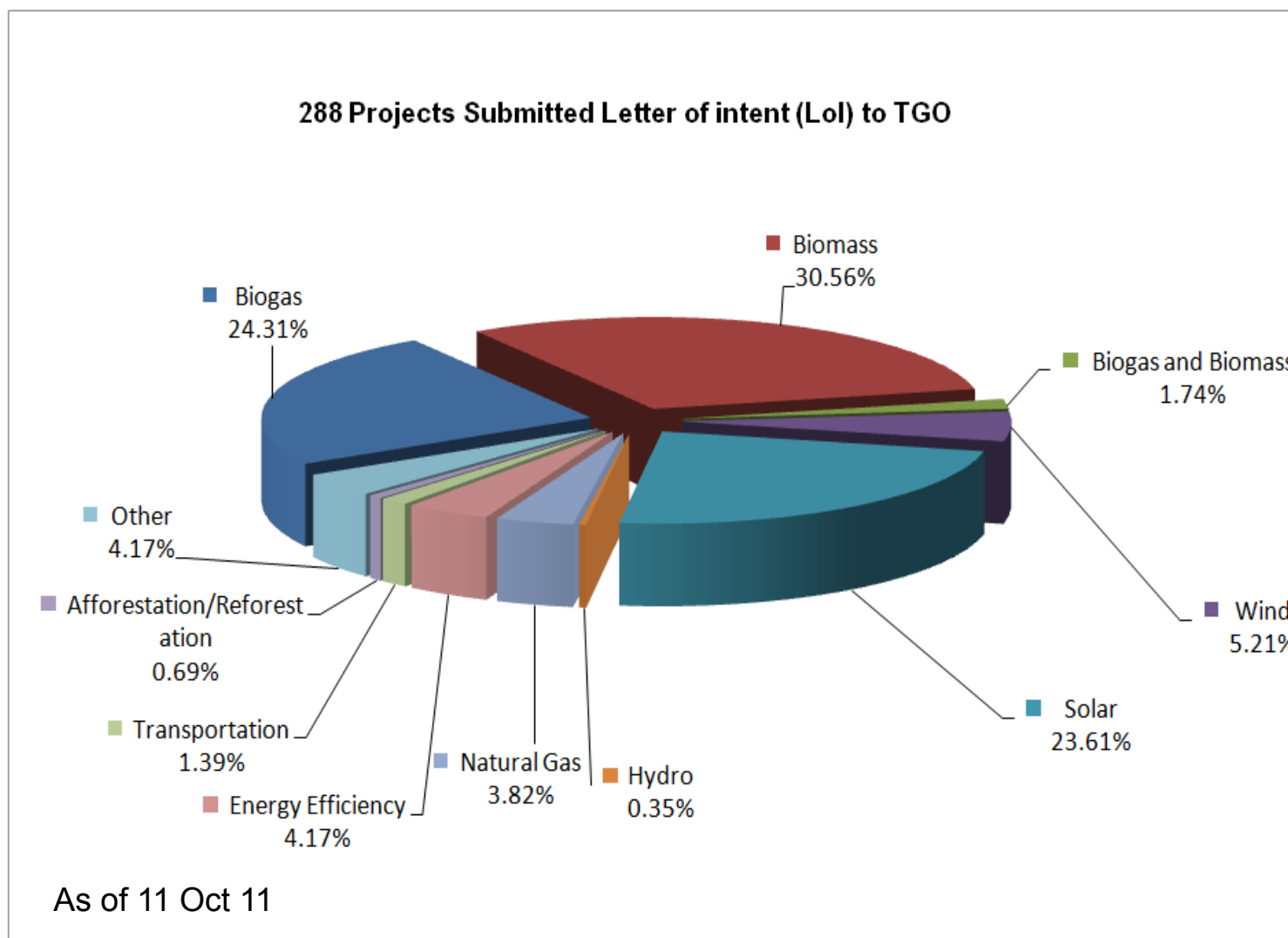
# CERs Issuance

- ❑ The amount of CERs issued is now 0.9 MtCO<sub>2</sub>e. List of 7 CDM projects that received CERs is as follows:
  - A.T. Biopower rice husk power project (CERs issued = 100,678 tCO<sub>2</sub>e)
  - Korat waste to energy (CERs issued = 714,546 tCO<sub>2</sub>e)
  - Univanich Lamthap POME Biogas Project (CERs issued = 4,346 tCO<sub>2</sub>e)
  - Decha Bio Green Rice Husk Power Generation 7.5 MW (CERs issued = 10,377 tCO<sub>2</sub>e)
  - Bionersis Project Thailand 1 (CERs issued = 21,594 tCO<sub>2</sub>e)
  - Srijaroen Palm Oil Wastewater Treatment Project in Krabi Province, Thailand (CERs issued = 13,528 tCO<sub>2</sub>e)
  - Catalytic N<sub>2</sub>O Abatement Project in the tail gas of the Caprolactam production plant in Thailand (CERs issued = 37,422 tCO<sub>2</sub>e)

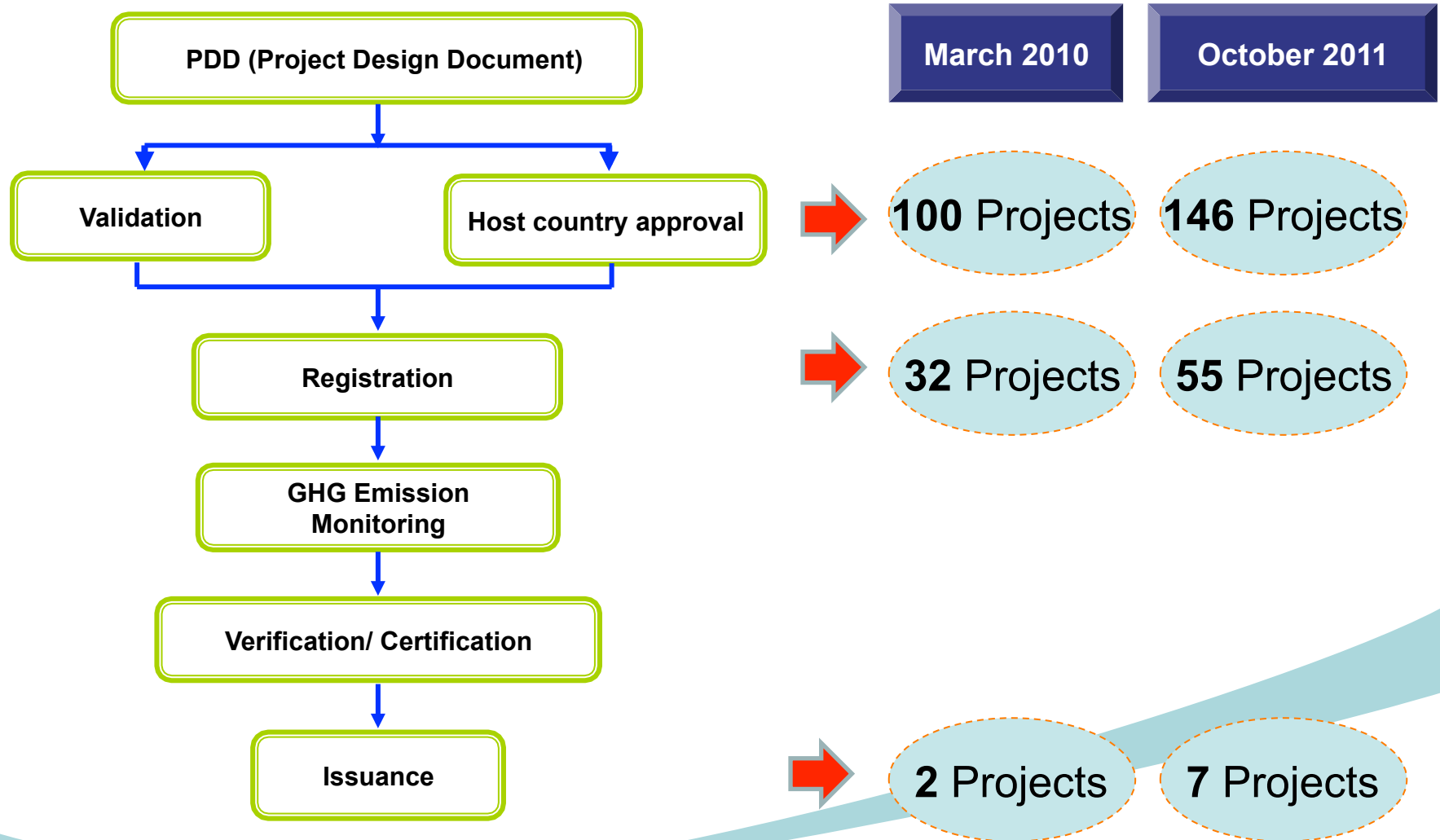


# Letter of Intent (LoI)

- The number of projects that submitted Letter of Intent (LoI) to TGO is **288** projects.

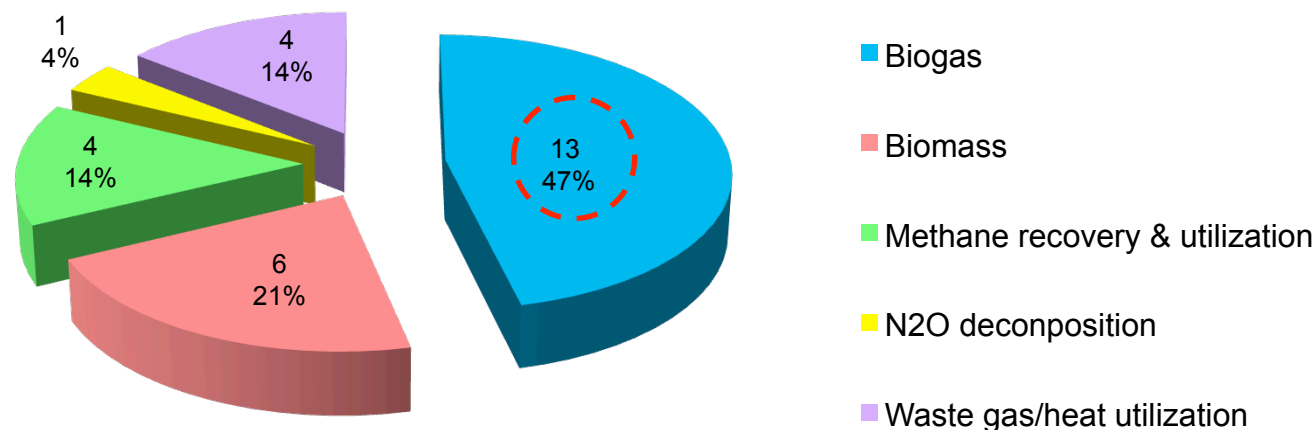


# CDM Cycle



## Host Party-Project Types (Review Requested for Registration)

□ No. of CDM projects in Thailand that requested review by CDM EB  
(by type of project)



**Total no. of projects =**  
**28**

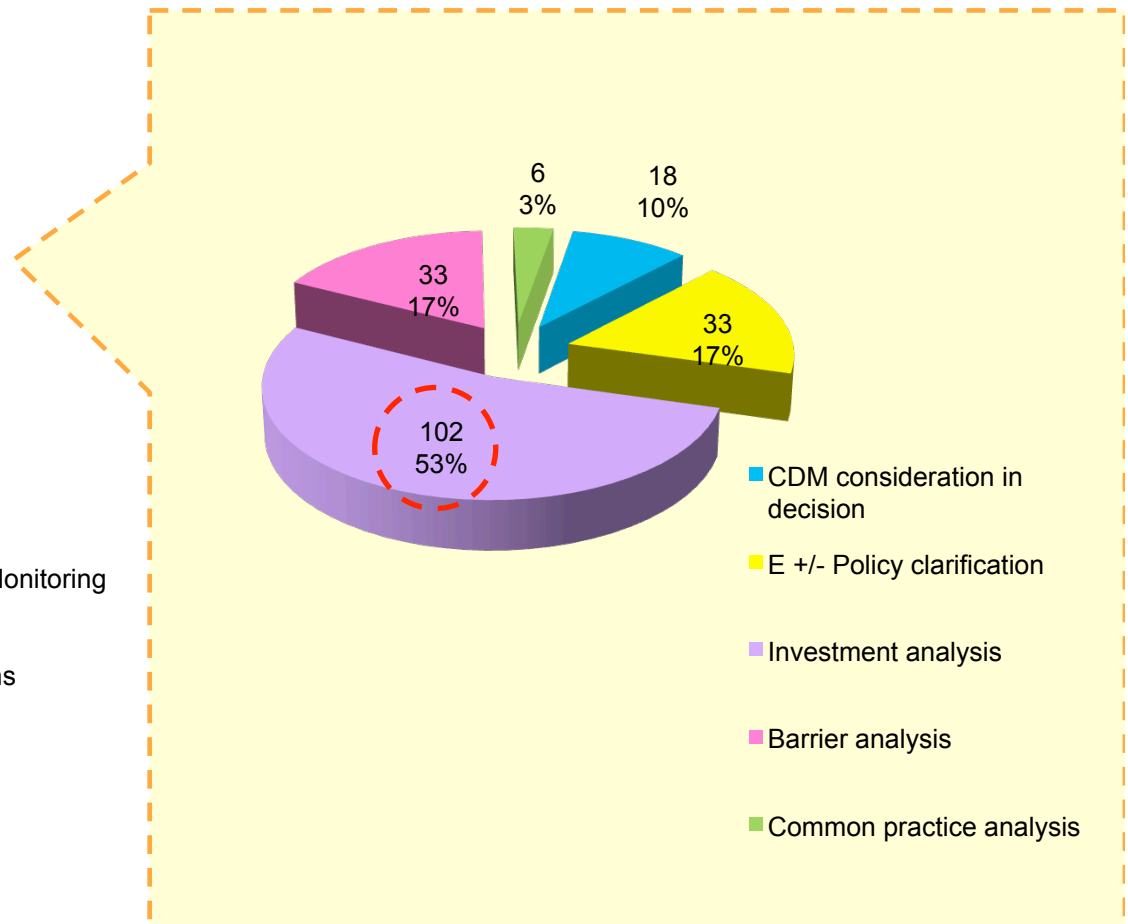
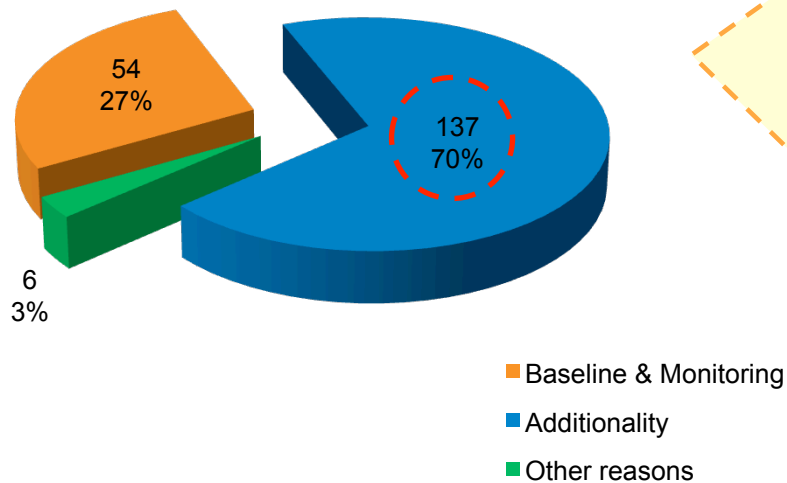
Source: IGES CDM Review and Rejected Project Database, Sep2011



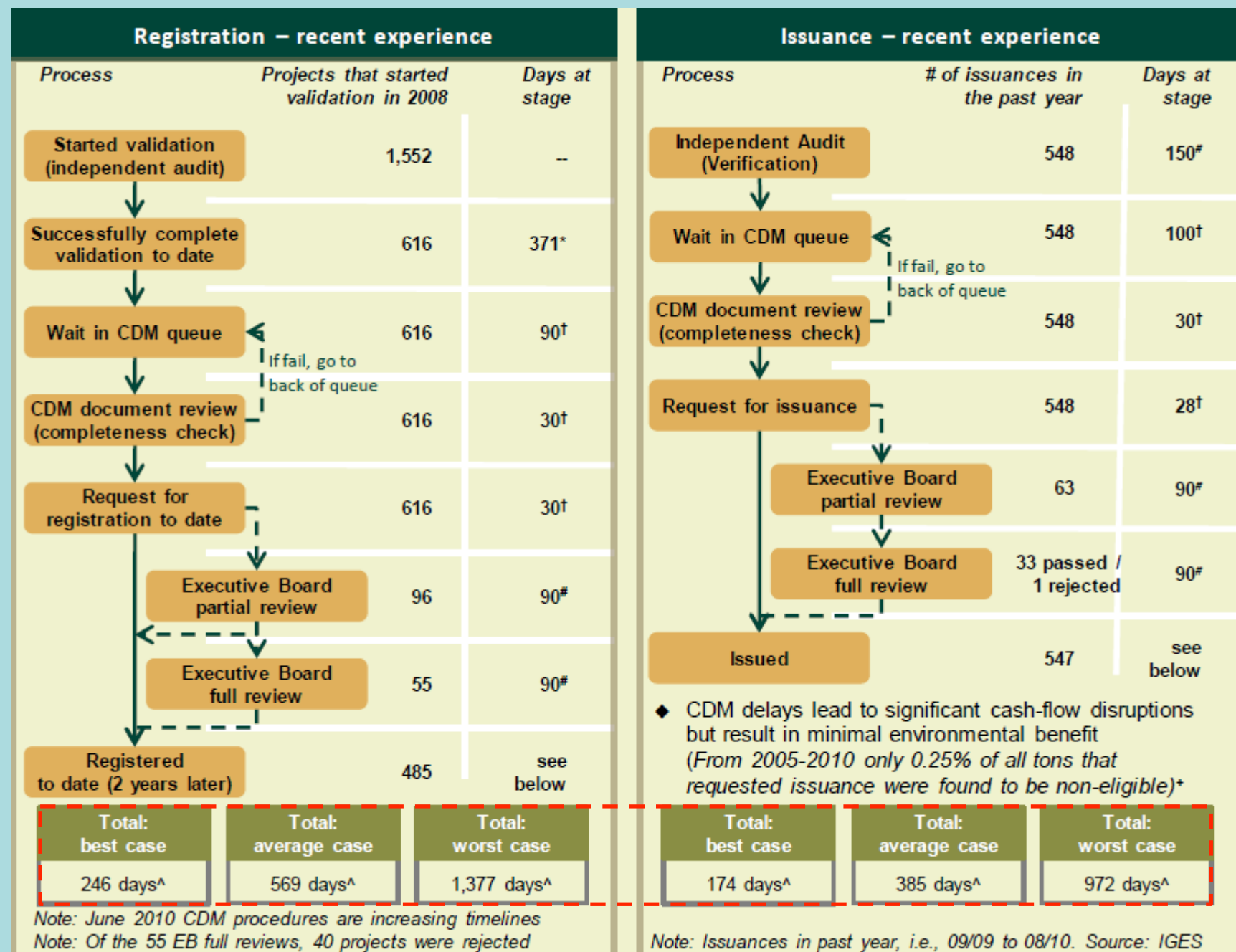
# Reasons for rejected (registration)

Reasons and no. of CDM projects in the world that were rejected by EB (July 2006 – August 2011)

Total no. of projects = 201



Source: IGES CDM Review and Rejected Project Database, Sep 2011



Source: Carbon finance, World

# Experiences in CDM implementation

- ❑ Success of the CDM,
  - > 3,500 projects registered, > 2.07 billion expected CERs until end of 2012
  - CDM is the certain and reliable carbon market mechanism
- ❑ Some major obstacles in CDM development
  - High transaction costs
  - Longer time than expected (When to register? When CERs will be issued?)
  - Limited number of DOE
  - Additionality test
  - Uncertainty (e.g. Revision of methodologies, requirements)
  - Different interpretation of rules and requirements
  - Uneven distribution of CDM projects
    - Lack of micro-scale projects
    - Lack of projects in some sectors (e.g. Building, transport)

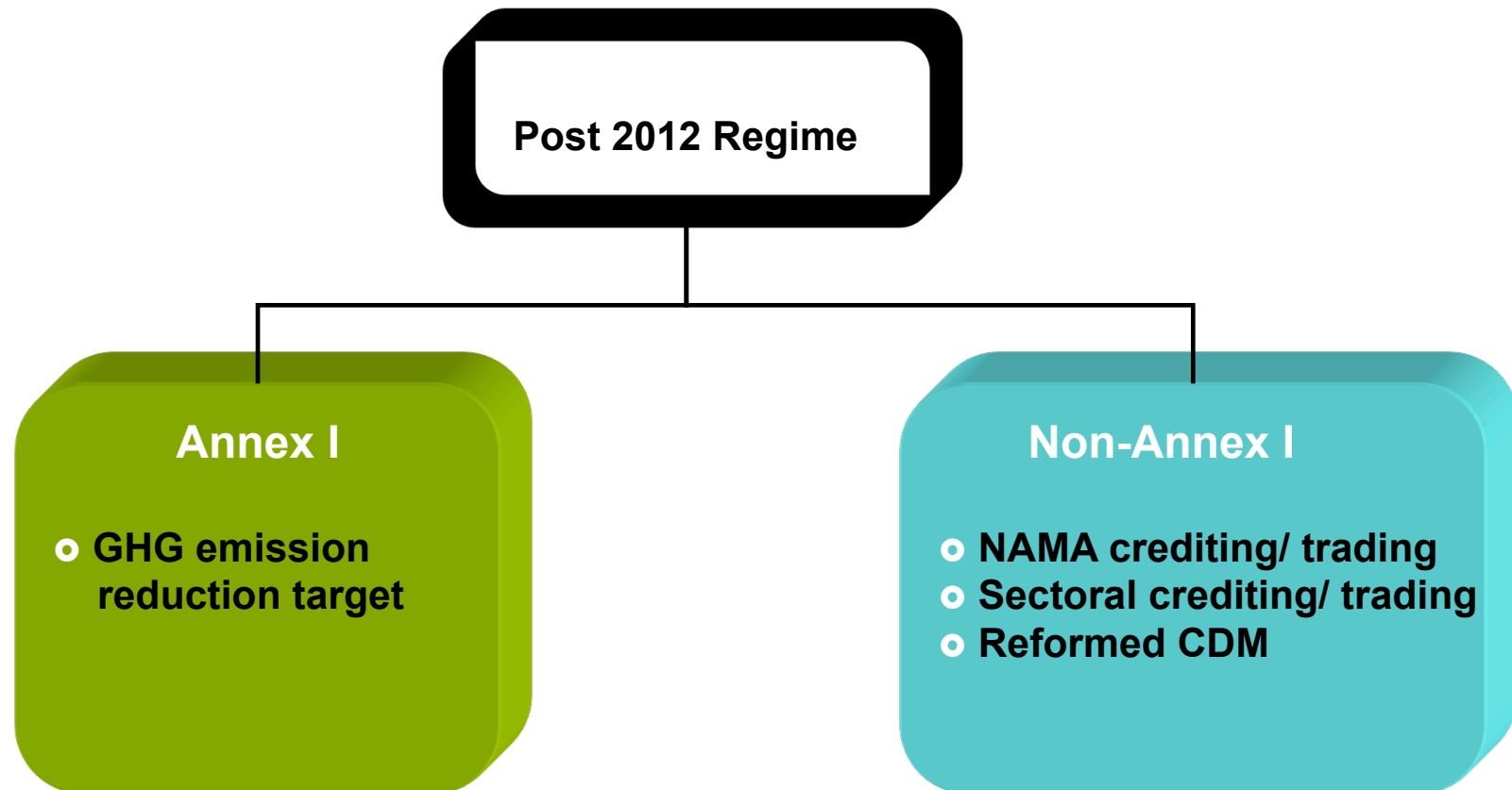
# Promotion of CDM

- ❑ Calculation / Providing Grid Emission Factor
- ❑ Study of Baseline and necessary information for additionality test
- ❑ Capacity building for stakeholders
- ❑ Encourage the establishment of Thai DOE
- ❑ Develop the online system for LoA approval
- ❑ Develop Sustainable Development criteria for specific type of project activities

# Potential mechanism after 2012

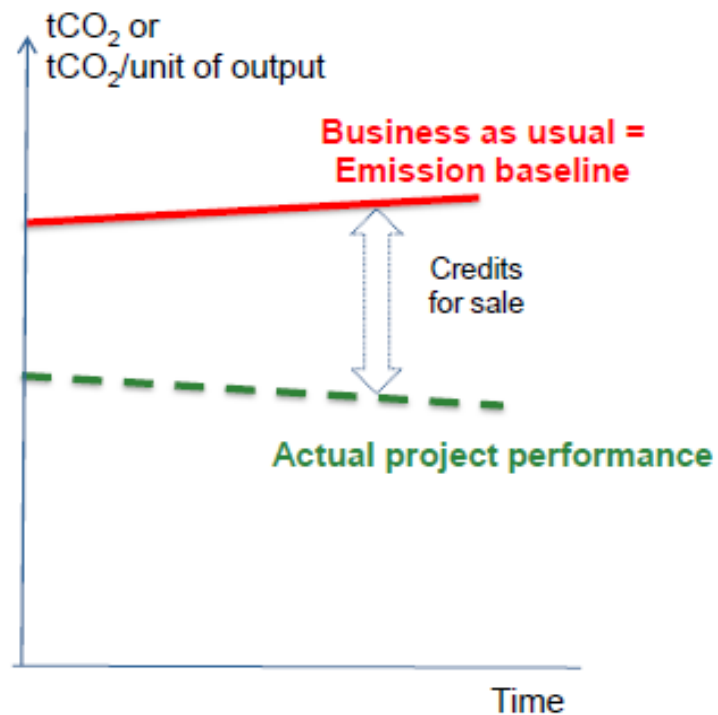
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- ❑ The proposed Annex I emission reduction target and new mechanisms are under negotiation.

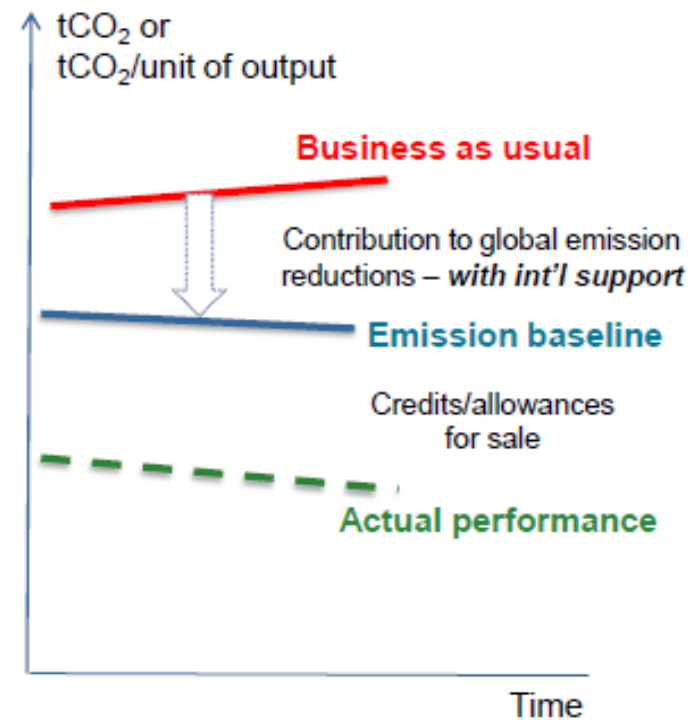


# CDM vs. proposed new mechanisms

## CDM



## Proposed new mechanisms



Source: OECD/IEA, 2009

# Proposed new mechanisms

- All proposals and ideas for proposed new mechanisms are concept level, and there are no concrete rules and procedures.
- Proposed new mechanisms will take time to develop implementation rules and establish the system.
- CDM is still one of the market mechanisms for the future, but CDM should be improved

## Improving the CDM?

- **Procedures for the use of nationally established Grid Emission Factor**
- **Streamline the process for the registration and issuance**
- **Define concrete and clear timeline in the process**
- **Finalize guidance on the use of the first-of-its-kind barrier and the assessment of common practice**
- **Simplify modalities for demonstrating**



# Improving the CDM?

- **Standardized baseline**

CMP.6 Defines “*standardized baseline*” as a baseline established for a Party or a group of Parties to **facilitate** the calculation of emission reduction and removals and/or the determination of additionality for clean development mechanism project activities, while providing assistance for assuring environmental integrity

- **Improve and simplify regulations related to PoA**

(a) Further clarify the application of existing rules:

- demonstration of additionality to PoA
- definition of eligibility criteria for the CPA

inclusion in a PoA

(b) Simplify the application of PoA to activities .

# Contact Detail

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Thank you

