



Institute for Global Environmental Strategies (IGES)  
New Market Mechanism Capacity Building  
Osaka General Meeting in FY2012

# **Current Preparation of Domestic Carbon Market in Thailand**

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- Voluntary Carbon Market in Thailand
- Thailand Voluntary Emission Reduction Program (T-VER)
- Thailand Voluntary Emission Trading Scheme (Thailand V-ETS)

# Objectives of Establishing VCM in Thailand

1. Support voluntary GHGs reduction activities
2. Encourage private companies, who attempt to reduce their GHG emissions, implement cost-effective GHGs reduction activities
3. Learn how to manage domestic emission trading scheme / carbon offsetting program

# Structure of Voluntary Carbon Market in Thailand

## Voluntary Emission Reduction Projects (VER)

**Type:** Project-based

**Eligibility:** Emission Reduction Projects, Pre-registered CDM

**MRV:** International standards (VCS, GS, etc.)

**Carbon Credit:** VERs

**Registry:** Standard Owners

**Buyers:** International buyers

**Status:** Existing

## Thailand Voluntary Emission Reduction Program (T-VER)

**Type:** Project-based

**Eligibility:** energy efficiency, etc.

**MRV:** Domestic

**Carbon Credit:** TVERs

**Registry:** T-VER

**Buyers:** Government / CSR companies / Brokers

**Status:** launch in Oct 2013

## Thailand Voluntary Emission Trading Scheme (Thailand V-ETS)

**Type:** Cap-and-Trade

**Target:** Industrial sector

**MRV:** ISO 14064-1 / 14064-3 / 14065

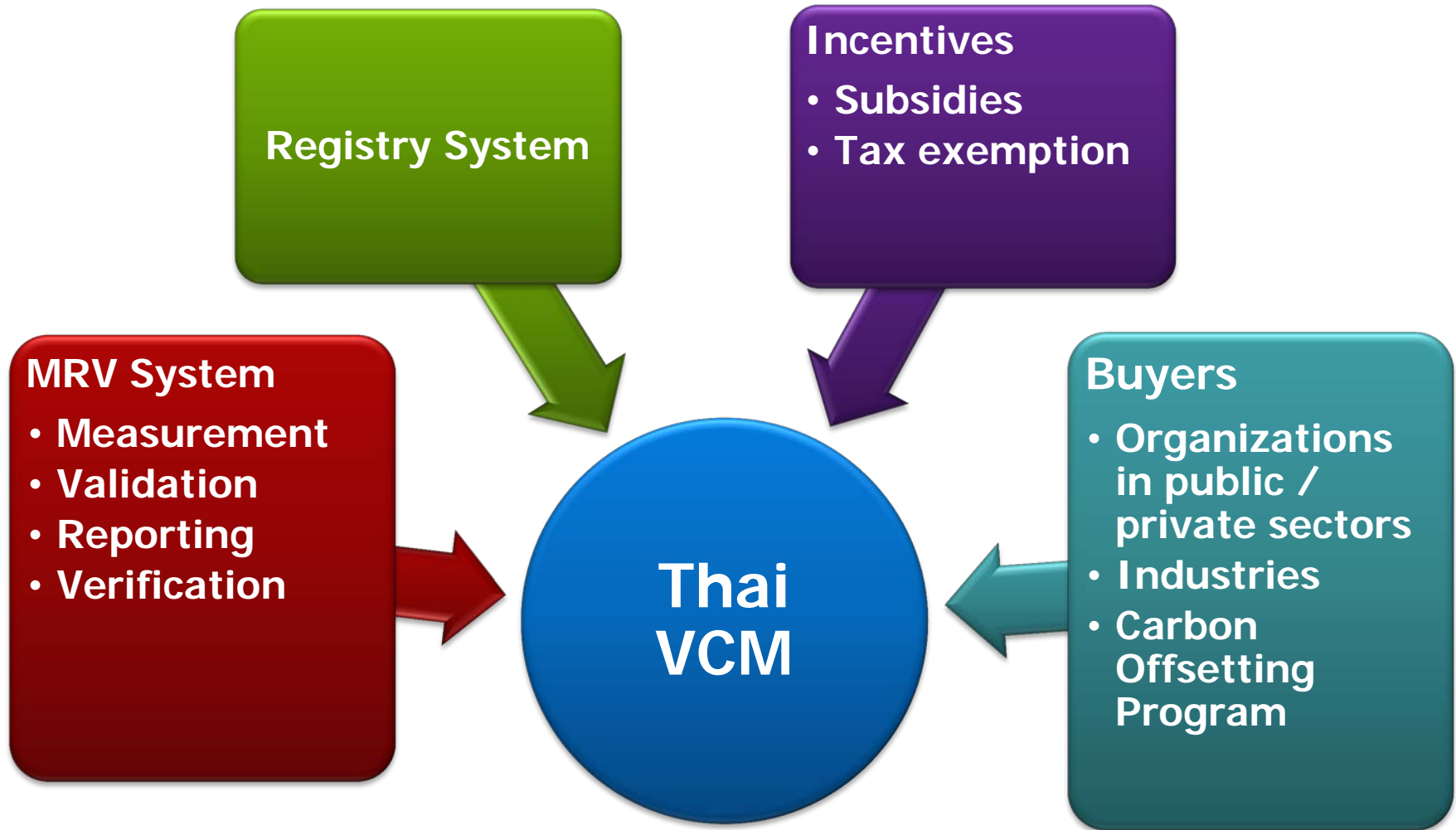
**Carbon Credit:** Allowances

**Registry:** ETS

**Buyers:** Entities / Traders

**Status:** launch in Oct 2014

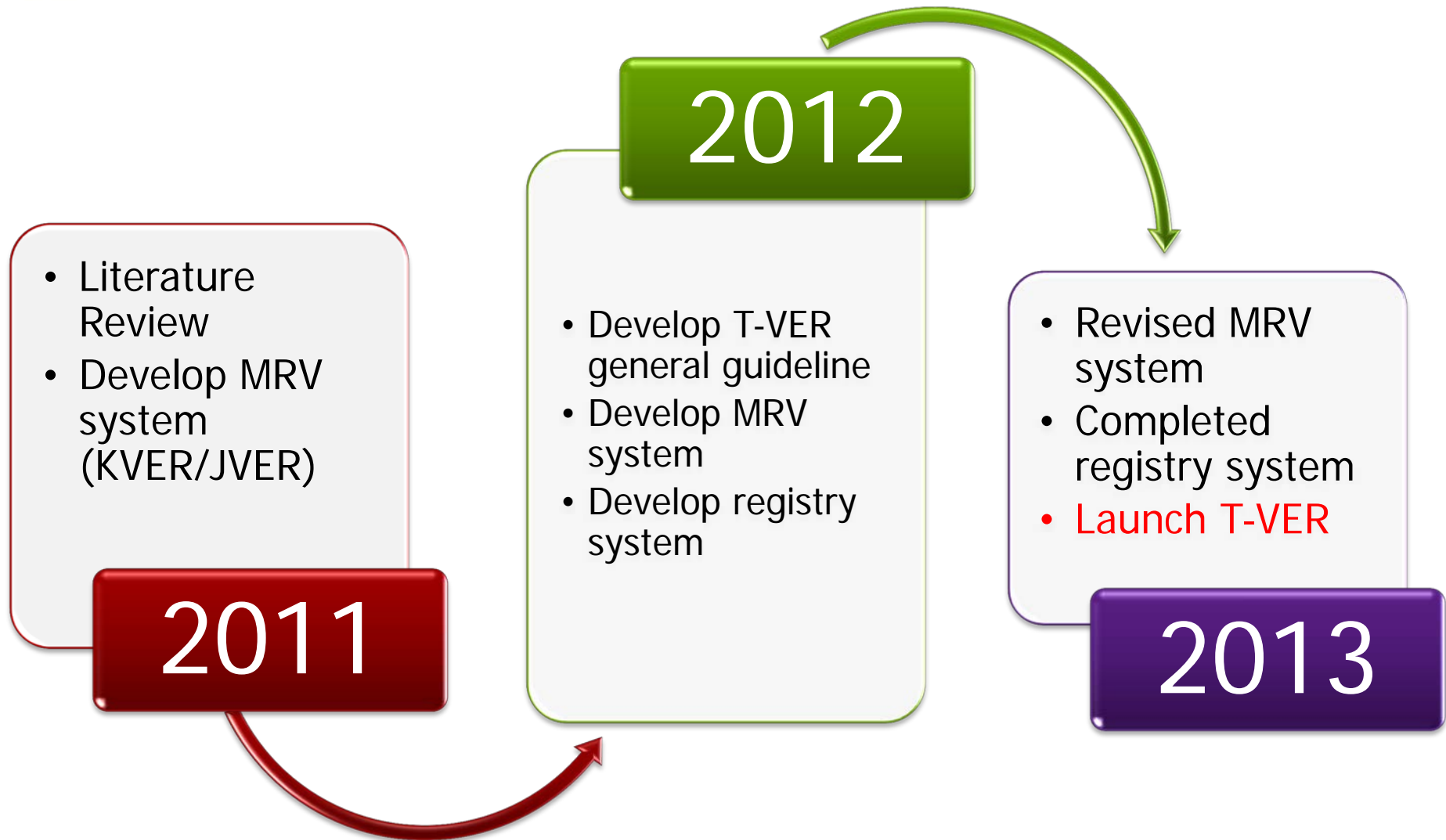
# Development of Infrastructure for VCM





# Thailand Voluntary Emission Reduction Program (T-VER)

# Roadmap for T-VER



# Characteristics of T-VER

- GHG reduction projects
  - Baseline-and-credit
- Size of project
  - No limitation
  - Can be bundled
- Carbon Credit
  - TVERs (Thailand Verified Emission Reductions)
- Gas coverage
  - CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O
- Crediting period
  - 7 years for non-forestry project / 20 years for forestry project
  - The crediting period takes into effect from the starting date of a project and/or not more than one year prior to submission for T-VER registration
- Starting date
  - The first date of recording data on GHG emission, as indicated in methodology
- Assessment tools for co-benefit and additionality
  - under development

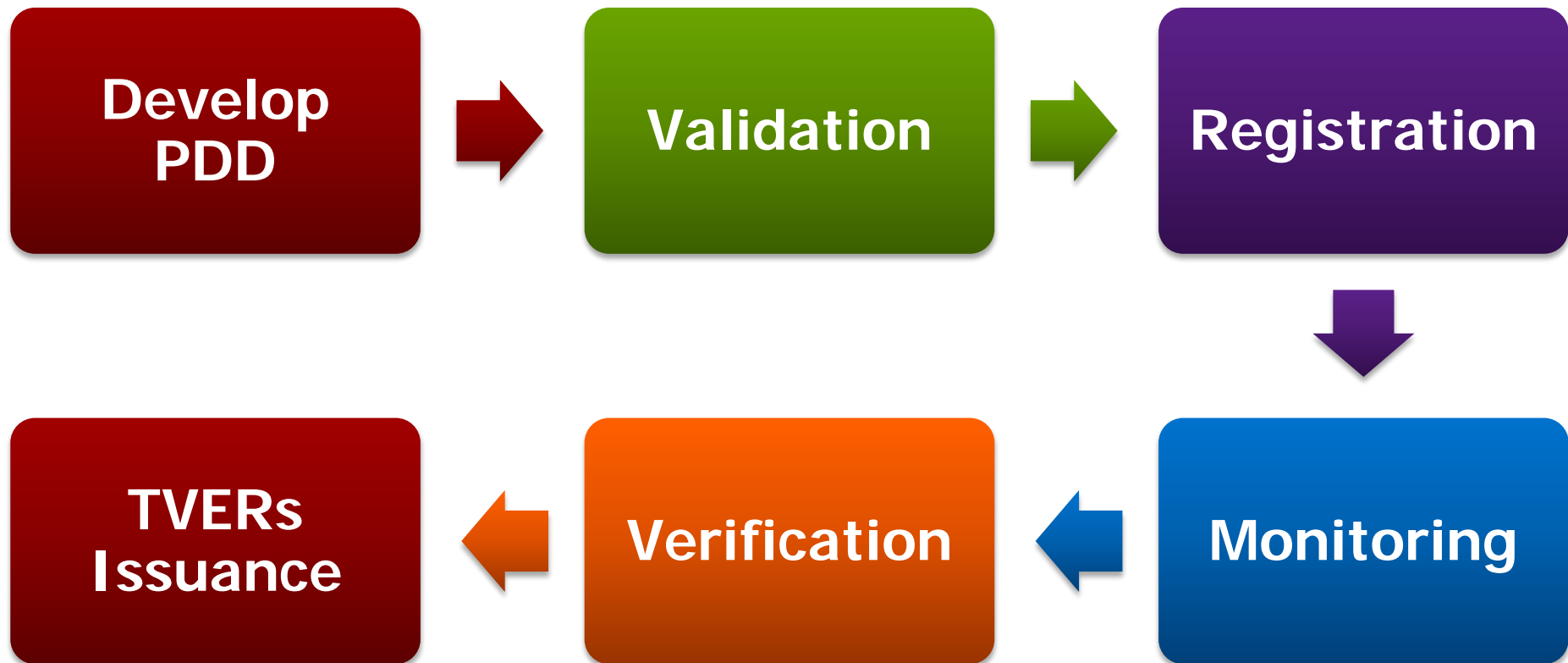




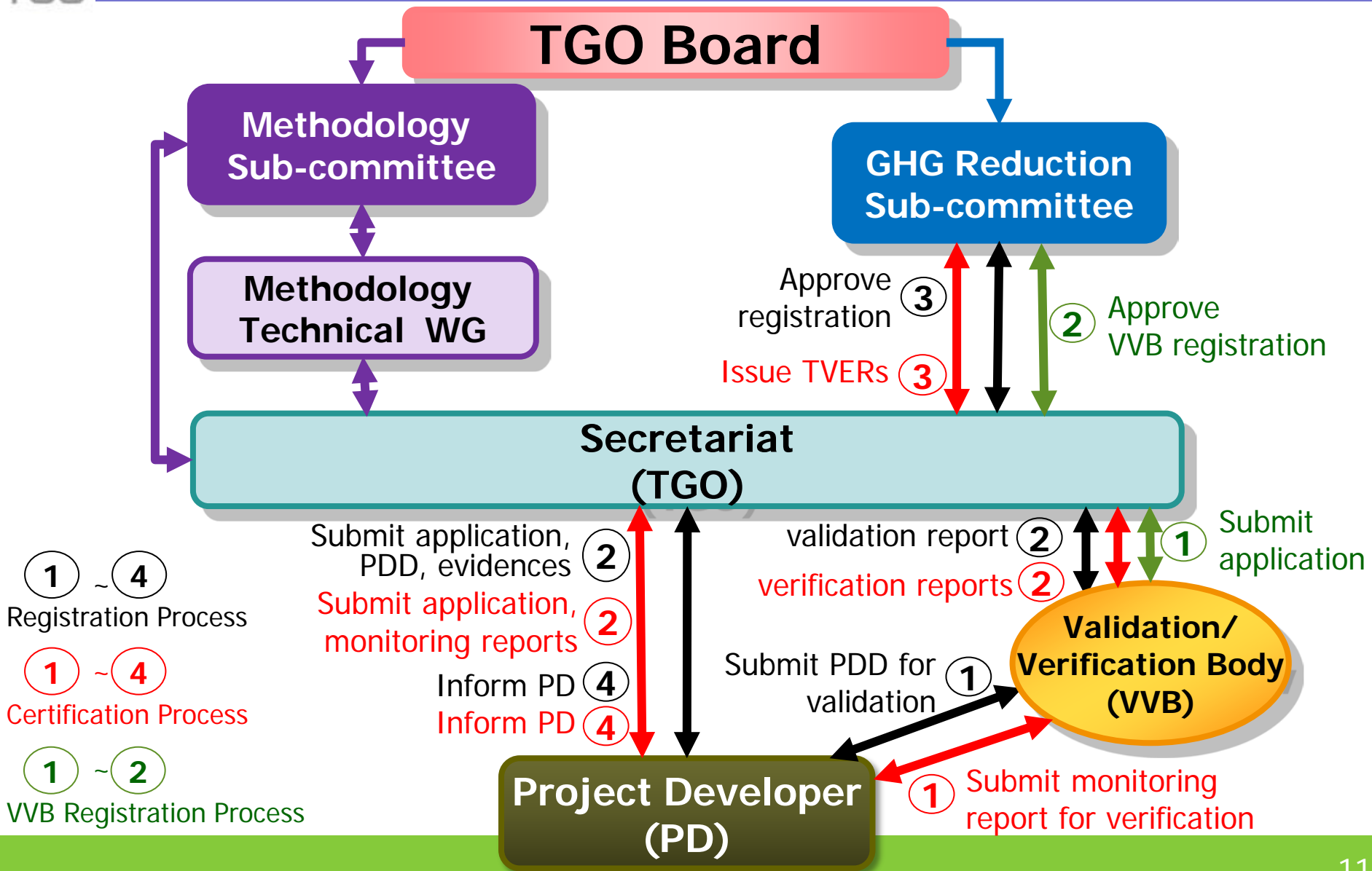
# T-VER: Eligible Projects

Types of Project	Potential list
Energy Efficiency	Efficiency improvement on electricity consumption and/or generation
	Efficiency improvement on heat consumption and/or generation
Alternative Energy	GHG emission reduction from utilization of Bio-diesel
	GHG emission reduction from utilization of Ethanol
Renewable Energy	Electricity generation from renewable resources
	Heat generation from renewable resources
Solid Waste Management	Emission reduction through landfill management
	Emission reduction through fertilize organic waste
	Waste to energy (RDF)
Transportation Management	Fuel switching in vehicle
	Emission reduction through non-motorized transportation
	Fuel switching in transportation system
	Energy saving vehicle
Forestry and Green Area	Carbon capture through public parks and urban forest
	Vertical gardening
	Forest conservation (A/R, REDD+)
	Agro-forestry
Agriculture	Good practice on using fertilizers in agricultural areas
	Low carbon rice from management of agricultural practice
Others	Any type of project/activities approved by TGO

# Set up Procedure of the T-VER project



# Set up T-VER Scheme Framework



# Progress on MRV development (1)

- Pilot Project for Increasing Energy Efficiency and Reducing GHG in Building Sector
- MRV System: ISO14064-2, ISO14064-3
- Target sector: 11 pilot buildings
- Project period: Nov 2011 – Oct 2012
- Outputs
  - Templates for PDD, Monitoring report, Validation and Verification Report
  - Monitoring and Reporting Guideline (MRG)
  - Validation and Verification Guideline (VVG)
  - 9 T-VER Methodologies
    - ✓ Lighting system (approved by TGO's Methodology Development Sub-committee)
    - ✗ Air conditioning, Chiller replacement, VSD for pump and fan, Free flow, Cooling pad, Ball cleaning system, voltage regulator, UPS replacement



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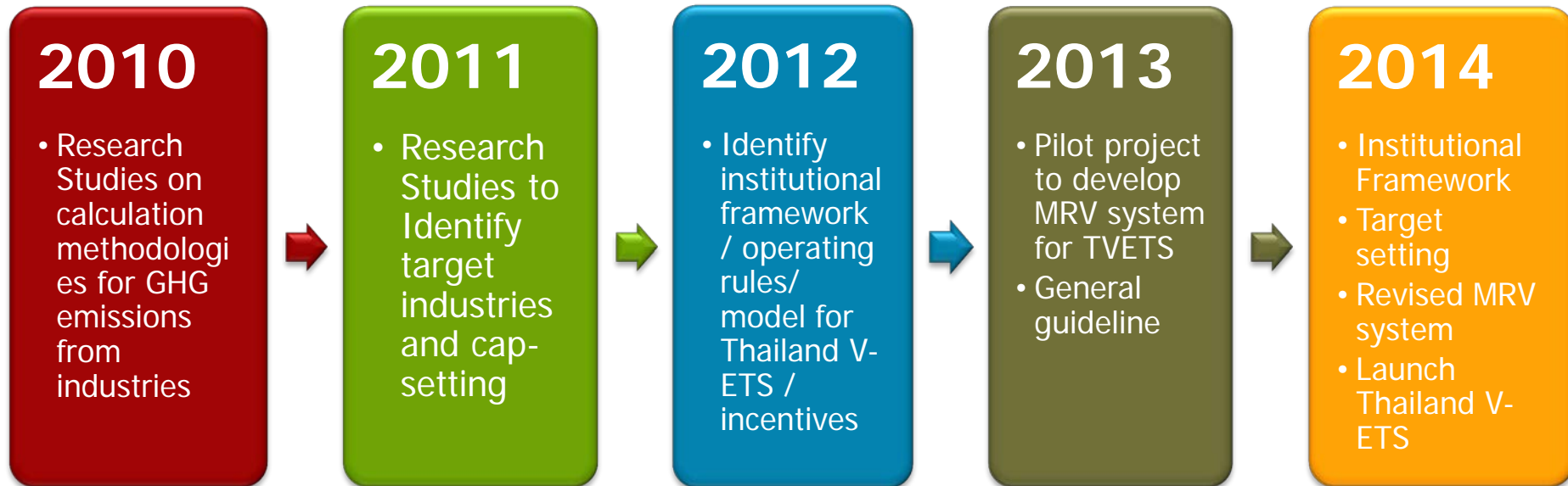
## Progress on MRV development (2)

- Established **Technical Working Groups** on Methodology Development
  - TWG 1 : Energy, Industry, Transportation, and Waste Management Sector
  - TWG 2 : Agriculture and Forestry Sector
- Methodologies will first be submitted to working group (WG) before approved by the Methodology Sub-committee
- TGO collaborates with Chiangmai University on modifying and simplifying CDM methodologies and then compare results from using both methodologies and decide which ones to use in T-VER
- In the next fiscal year, TGO will do a test run with additional 5 pilot projects (hydro, biogas, reforestation, etc)



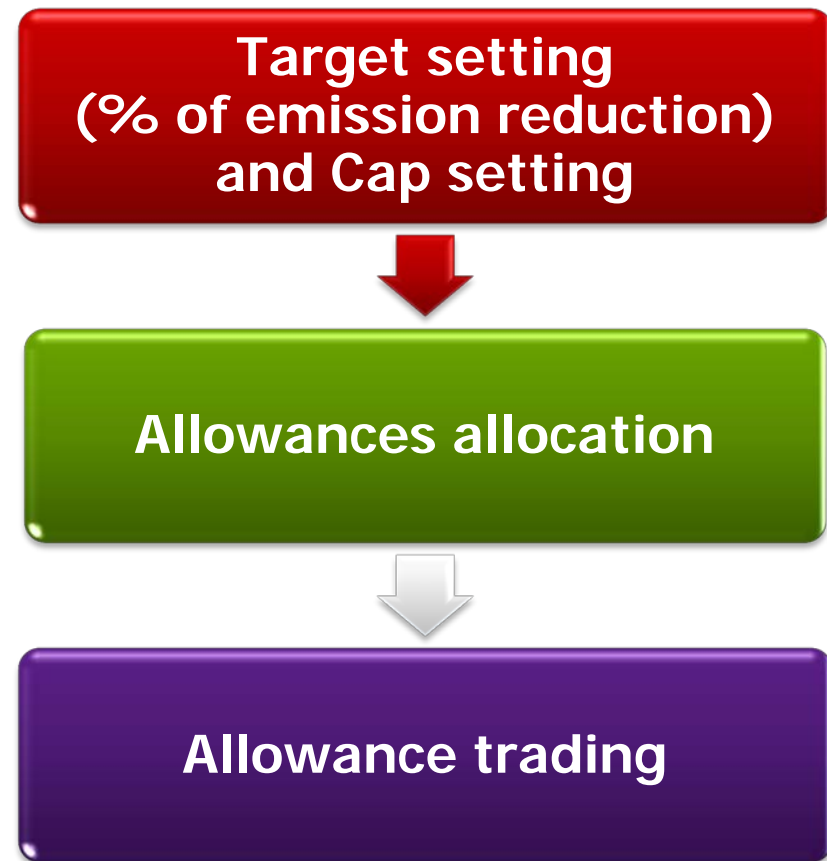
# Thailand Voluntary Emission Trading Scheme (Thailand V-ETS)

# Roadmap for Thailand V-ETS



# Thailand V-ETS Characteristics

- Emission Trading Scheme
  - Cap and trade system
- Target group
  - Allow firms to enter the carbon market **voluntarily without** identifying **target industries**.
- Carbon credit
  - Allowances
- Gas coverage
  - Energy related CO2
- Determination of Reduction Targets
  - Absolute reduction target
- Determination of Emission Baselines
  - Include both Scope 1 and Scope 2 (Further discuss with participants on how to avoid double counting)
- Allocation of allowances
  - Grandfathering in trial phase and further consider this issue later on





# Progress on MRV development

- Pilot Project for MRV Development
- **MRV System:** ISO 14064-1, ISO 14064-3
- **Target sector:** 7 industrial plants (Petrochemical, Food processing, Electronics, Automobile)
- **Project period:** Oct 2012 – Oct 2013
- **Expected Outputs**
  - Templates for Monitoring report, Verification Report
  - Monitoring and Reporting Guideline (MRG)
  - Verification Guideline (VG)

# Dissemination of Knowledge and Consultation with Industries

- 15 May 2012
  - Steel, Cement, Glass industries
- 3 July 2012
  - Thai Chamber of Commerce
- 20 July 2012
  - Petrochemical, Plastic, Power, Refinery industries @ Rayong province
- 10 August 2012
  - Textile, Pulp and Paper, Non-metal industries
- 22 November 2012
  - Pulp and Paper Industrial Association

# Next Step





Thank you for your attention



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