

# Thailand Voluntary Emission Reduction Program (T-VER)



Thailand Greenhouse Gas Management Organization  
(Public Organization)

# Outline

- Objectives of T-VER
- Overview of T-VER
- Institutional Framework for T-VER
- Project Cycle
- T-VER Methodologies
- Recent Progress of T-VER Development
- Possible Challenges
- Next Step



# Thailand Voluntary Emission Reduction Program (T-VER)

- *The voluntary domestic GHG emission reduction program (crediting program) was initiated by TGO in 2013.*
- *Trade of the carbon credits is allowed domestically.*
- *Credits obtained from the program are mainly used for CSR purposes and voluntary carbon offsets of companies in Thailand.*



# Objectives of T-VER

- **To encourage developing GHG emission reduction projects with co-benefits by means of certifying carbon credits**
- **To promote Voluntary Carbon Market in Thailand**
- **To raise perception /awareness of climate change and encourage public and private sector involvements**
- **To prepare all stakeholders for the future new agreement in Global GHG emission reduction**
- **Credits are mainly used for CSR purposes and voluntary carbon offsets of companies**



# Basic principles in developing T-VER

- **Transparency**
- **Relevance**
- **Accuracy**
- **Consistency**
- **Comparability**
- **Completeness**



# Securing Reliability of Offset Credits (T-VER)

## The scheme is harmonized with International Standards

- **Monitoring/calculation rules based on ISO 14064-2 and CDM Methodologies**
- **Validation/verification guidelines based on ISO 14064-3**
- **Validation body and verification body based on ISO14065/DOE**





# General Overview of T-VER



# Characteristics of T-VER

- **GHG reduction**
  - Project based
  - Baseline-and-credit
- **Size of projects**
  - No limitation
  - Can be bundled (Not currently)
- **Carbon Credits**
  - TVERs (Thailand Verified Emission Reductions)
- **Gas coverage**
  - CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O



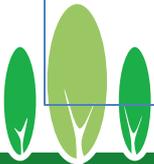
# T-VER General Guidelines

## ➤ Types of Project

1. Energy Efficiency
2. Alternative Energy
3. Renewable Energy
4. Transportation
5. Waste Management
6. Forestation and Green area
7. Agriculture
8. Other

## ➤ Type of GHG

- $\text{CO}_2$ ,  $\text{CH}_4$ ,  $\text{N}_2\text{O}$



# T-VER General Guidelines

## ➤ Eligibility criteria

### New project activities

The project activities with a starting date after the Regulation of the Board of Director of Thailand Greenhouse Gas management on T-VER project approval goes into effect

### Existing project activities

The project activities must not start before the year 2007



# T-VER General Guidelines

## Crediting Period

### ➤ New Project

- For new project, crediting period is 7 years for general project and 20 years for forestry project. The crediting period starts from the date that all required documents are submitted to TGO for registration as a T-VER project
- **In case that the project has not started, the crediting period shall begin no later than 1 year from the date that all required documents are submitted to TGO for registration as a T-VER project**

### ➤ Existing project

- For existing project, crediting period is also 7 years for general project and 20 years for forestry project. But the crediting period can be started retroactively no later than 1 year before the date that all required documents are submitted to TGO for registration as a T-VER project



# Additionality of Projects

- **For micro scale and small scale projects, no need to prove additionality**
- **For large scale project, PP has to prove additionality of the project.**
- **At an initial stage, payback period is used for proving additionality.**



# Co-benefits

## ➤ **Project Developer should declare co-benefits rising from the project**

- Types of co-benefits
  - Environmental co-benefits
  - Economic co-benefits
  - Social co-benefits
- Guidelines for co-benefits : Biogas, Solar power, Hydro power, Wind power
- Assessment : Check list and evidence attached
- Co-benefit Evaluation Report

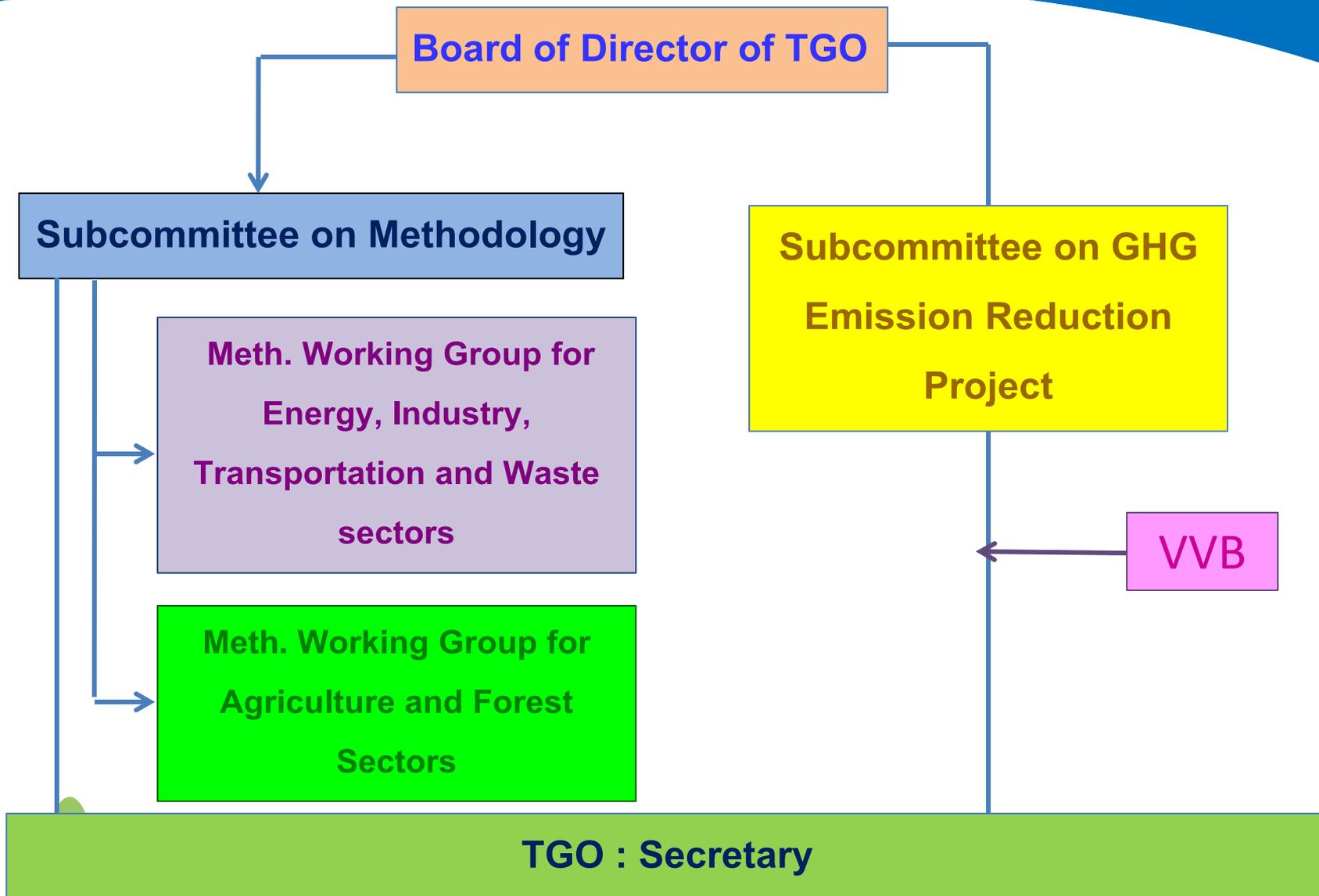


# Prevention of Double Use (Double Count) of Credits

- **Prohibition of double certification resulting from similar schemes**
- **In case that there are many projects in the same juristic area and projects are submitted separately, PP should identify in the application form, under item “double counting prevention”**
- **Prevention of double counting by providing a voluntary reporting/announcement, or through public report/announcement regimes**



# Institutional Framework for T-VER



# Subcommittee on GHG Emission Reduction Project

## Mandates

- Recommend an issuance of Letter of Approval for CDM projects to Board of Director of TGO for the final decision
- Recommend the registration of T-VER projects and issuance of TVER credits
- Recommend the registration of Validation and Verification Bodies : (VVB)
- Establish working groups to work on the assignment
- Response to other works assigned by the Board



# Subcommittee on Methodology

## Mandates

- Provide guidelines, rules and standards for Methodology development
- Recommend the draft T-VER Methodologies submitted by methodology working group to the Board for the final decision
- Consider revising, improving and abolition of existing T-VER methodologies
- Establish working groups to work on the assignment
- Response to other works assigned by the Board



# Methodology Working Groups

## Compose of two Meth. Working Groups

- **Meth. Working Group on Energy, Industry, Transportation and Waste sectors**
- **Meth. Working Group on Agriculture and Forest Sectors**



# Methodology Working Group

## Mandate

1. Develop work plan for T-VER Methodology Development in each sector and submit to Subcommittee on T-VER Methodology Development
2. Develop T-VER methodologies and Tools for GHG reduction activities for each sector
3. Provide comments on development, revision and abolition of T-VER methodology
4. Develop procedures and documentations for submission of draft methodology developed by third parties or other organizations; Provide comments and recommend the draft methodology to Subcommittee on Methodology for consideration
5. Response to other works assigned by the Subcommittee on Methodology



# Roles of TGO

- Serves as Secretary of
  - **Subcommittee on GHG Emission Reduction Project;**
  - **Subcommittee on Methodology;**
  - **Meth. Working Group on Energy, Industry, Transportation and Waste Sectors;**
  - **Meth. Working Group of Agriculture and Forest Sectors**



# Validation and Verification Body: VVB

Validation and Verification Body:

**Responsibility** : Validate PPD and verify GHG Emission

reduction/removal in accordance with Validation and Verification Guidelines

**Requirement for VVB** : Comply with Rules of VVB qualification and VVB registration.



# Validation and Verification Body

## ➤ Rules of VVB qualification and VVB registration

### ■ Qualification of Juristic Person

- (1) Government agency/ Public institute/ Public organization
- (2) Juristic person registered under the Thai law – as a “Thai Juristic Person”
- (3) Juristic person registered under the Thai law – as a “Foreign Juristic Person”
- (4) Juristic person registered under the Foreign law
- (5) Designated Operational Entities (DoE) under CDM
- (6) Juristic Agency that has acquired accreditation on ISO 14065

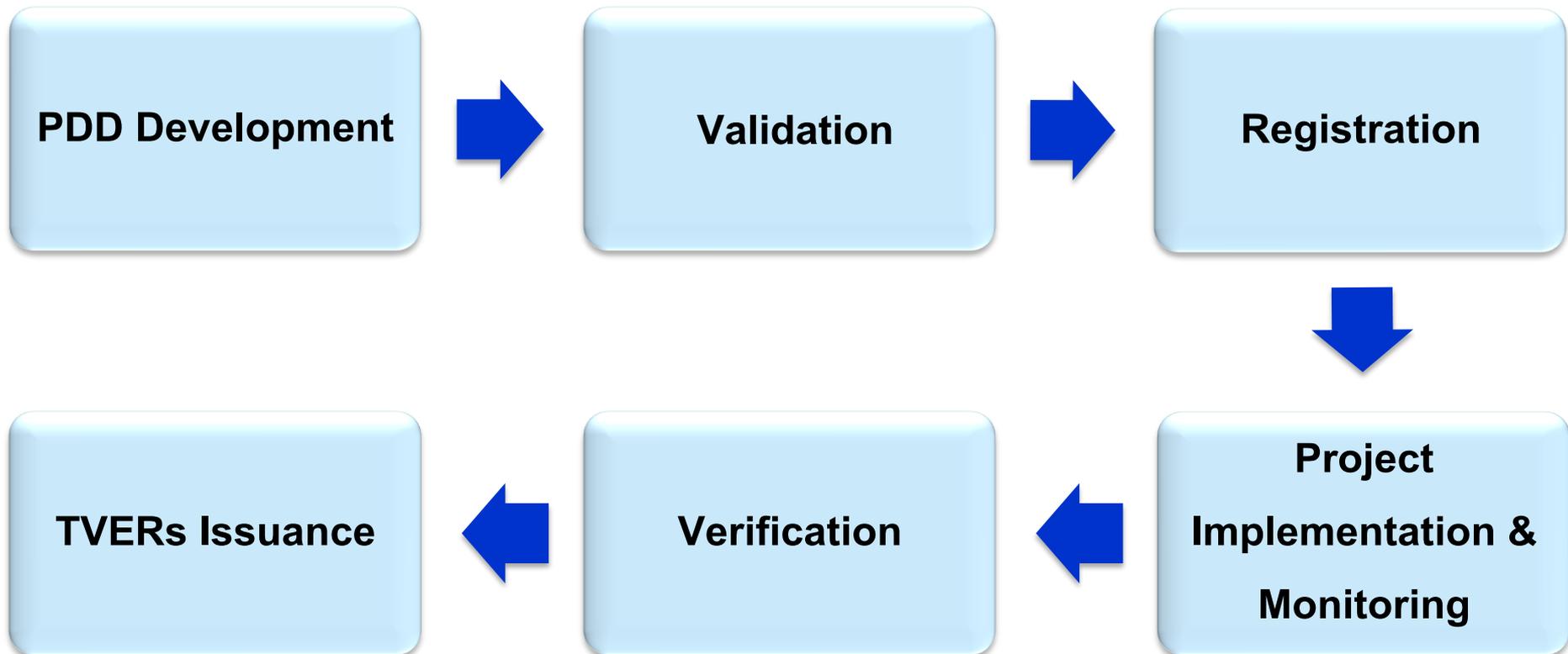


# Validation and Verification Body

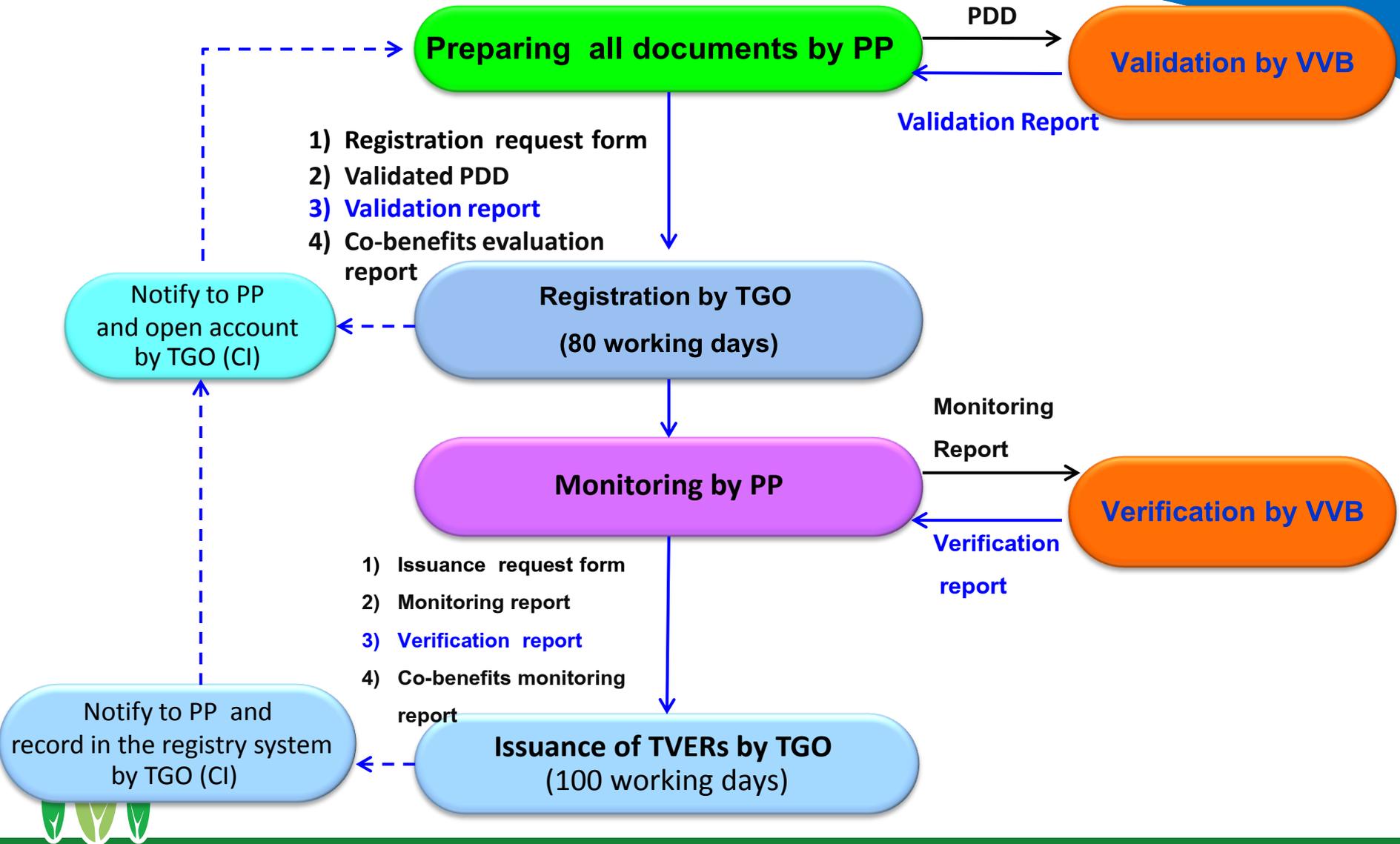
- **Has qualified experts with relevant experiences at least 2 years.**
- **Has expertise on specific type of T-VER project**
- **Pass the training courses as specified by TGO**
- **Has never been suspended/repealed for being DoE or from ISO 14065**
- **Has to register with TGO**



# T-VER Development Procedure



# T-VER Project Cycle



# T-VER Methodology

- Methodology for Energy, Industry, Transportation and Waste sectors
- Methodology for Agriculture and Forest Sectors
- Adapted from CDM Meth, J-VER Meth, etc.



# Approved Methodologies

## For Energy, Industry, Transportation and Waste Sectors

Meth. No.	Methodology	Date of approval
T-VER-METH-EE-01	1. Energy Efficiency Improvement from Lightings	August 2013
T-VER-METH-EE-02	2. High Energy Efficiency Lighting Installation in Buildings	August 2013
T-VER-METH-RE-01	3. On-Grid Renewable Electricity Generation	August 2013
T-VER-METH-RE-02	4. Off-Grid Renewable Electricity Generation	August 2013
T-VER-METH-WM-01	5. Methane Capture from Anaerobic Wastewater Treatment for Utilization or Flaring	August 2013



# Approved Methodologies

## For Agriculture and Forest Sectors

Meth. No.	Methodology	Date of approval
T-VER-METH-FOR-01	6) Sustainable Forestation	August 2013
T-VER-METH-ARG-01	7) Good Fertilization Practice in Agricultural Land	August 2013



# Methodologies (work in process)

Meth. No.	Methodology	Date of approval
T-VER-METH-RE-03	Switching or Increasing of Renewable Energy to Generate Thermal Energy for Supply or Own Use)	-
T-VER-METH-RE-04	New Installation of Renewable Energy System to Generate Thermal Energy for Supply or Own Use)	-
T-VER-METH-EE-03	Power Generation from Cogeneration System	-



# Methodologies (work in process)

Type	Methodology	Date of approval
T-VER-METH-FOR-2	Reducing Emission from Deforestation	-
T-VER-METH-AGR-02	Carbon Stock in Orchards	-



# Issuance of TVER Credits

- Subcommittee on GHG Reduction Project considers the issuance of TVER credits.
- TGO Board deducts 2% of the TVER credits issued and lodge in Voluntary GHG Emission Reduction Promotion Fund (T-VER Fund) except for small T-VER Project which generates less TVER credits than 1,000 tCO<sub>2</sub>e/year.
- T-VER Fund reserves those credits for buffer account.
- At the first stage of the program, 2% TVER credit deduction is exempted.



# Compensation of TVERs

➤ **In case that issued credits are not in accordance with the actual GHG emission reduction, PP must compensate the missing credits by**

- 1) Buying TVERs from T-VER Fund
- 2) Buying TVERs from other T-VER projects
- 3) Buying credits from CDM projects
- 4) Buying credits from other projects defined by TGO



# Administration Fee

- Administration fee is exempted until 2016



# Rejection/withdrawal of T-VER Project

TGO can reject or withdraw the registration of the T-VER Project in accordance with:

- Rule of cancellation of the registration
- No Activity implementation after 2 years of registration



# Recent Progress of T-VER Development



Activities	status
<ul style="list-style-type: none"> <li>✓ 7 Approved Methodology</li> </ul>	<ul style="list-style-type: none"> <li>- Submitted to TGO Board 28 Aug 13</li> <li>- Issued Notification on Meth. 19 Sep 13</li> </ul>
<ul style="list-style-type: none"> <li>✓ Revised T-VER General Guidelines (T-VER GG) (eligibility criteria, starting date of crediting period, procedure)</li> </ul>	<p>Approval Date 16 sep 13</p>
<ul style="list-style-type: none"> <li>✓ PDD template (T-VER PDD) and Guidelines for completing PDD (T-VER-PDD Guideline)</li> </ul>	<p>Approval Date 16 sep 13</p>
<ul style="list-style-type: none"> <li>✓ Approval criteria for registration as T-VER project</li> <li>✓ Criteria for additionality demonstration</li> <li>✓ Co-benefit checklist and Co-benefit evaluation report (template)</li> <li>✓ <b>Monitoring report (template) and Guidelines for completing Monitoring report</b></li> </ul>	<ul style="list-style-type: none"> <li>-Submitted to GHG Reduction Sub-committee (9 Oct 13)</li> <li>- submitted to TGO Board (28 Oct 13)</li> </ul>



Activities	status
Validation and Verification Guidelines for VVB	Approval Date 11 March 2014
VVB qualification and VVB registration criteria	Approval Date 11 March 2014
(Draft) Validation Report for VVB (template) (Draft) Verification Report for VVB (template)	Under Development
Registry System	-The system has been developed by GHG Information Center



# Demonstration Projects

## Implementation of demonstration projects

**Objective:** To test methodologies, tools, rules and procedures etc.

- 16 projects from 8 organizations.
- Covered 7 methodologies
- Duration: start from February 2014 –January 2015



# Demonstration Project Participants

- Electricity Generation Authority of Thailand: EGAT 5 projects
- Provincial Electricity Authority :PEA 1 project
- PTT Exploration and Production Public Company Limited 1 project
- UNIVERSITY OF PHAYAO 2 projects
- Delta Electronics (Thailand) PCL. 1 project
- Connection Worldwide Co., Ltd. 1 project
- Kasikorn Bank Public Company Limited 4 project
- Wat Nongjorakae Rayong Province 1 project



# Possible Challenges

- **Completeness of the program**
- **Incentives from government**
- **How to create demand for credits**
- **Carbon Fund**
- **How to minimize cost of T-VER: validate & verify**
- **Commonality with other country's schemes**



# Next Steps

- **Develop more methodologies**
- **Develop curriculum of VVB**
- **Training for VVB**
- **Seminar for T-VER program**
- **Develop other relevance**



Thank you very  
much for your  
attention



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## Thailand Greenhouse Gas Management Organization

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