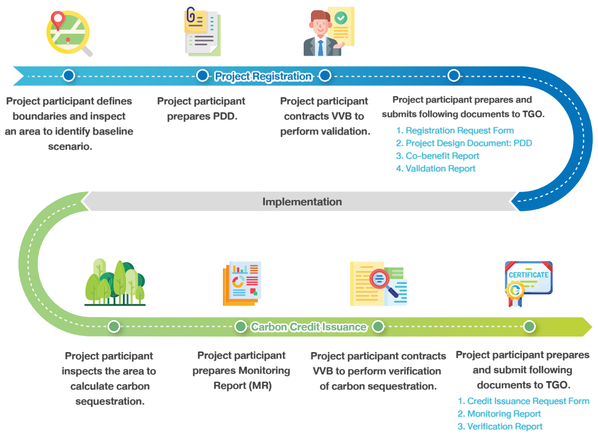
Standard T-VER Forestry Project Development Cycle

The implementation of T-VER forestry projects involves the following steps.



Step 1 Project registration

Project registration is to be completed only once and requires the following sub-steps.

1. Project participant shall assess the compliance of project activity with T-VER Methodology specified by TGO, define project boundaries and prepare the implementation plan. Project participant shall also estimate expected carbon sequestration in baseline scenarios as well as review land use rights.
2. Project participant shall prepare Project Design Document (PDD) using the template provided by TGO which can be downloaded from T-VER website.
3. Project participant shall submit PDD to VVB for validation. *(Project Participant is responsible for the VVB validation fee.)*
4. Project participant shall submit all required document to TGO to request for the registration.

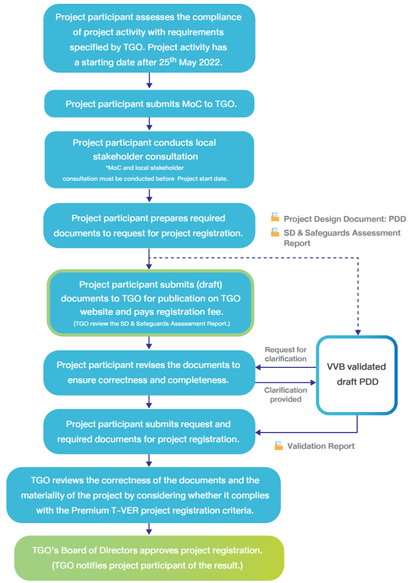
Step 2 Carbon credit issuance

TGO recommends that a request for credit issuance be submitted every 3-5 years depending on the readiness and the intended use of carbon credits by the project participant.

1. Project participant shall conduct assessment of trees in the project area to calculate additional carbon sequestration in comparison to the baseline scenario. The additional amount of carbon sequestered shall be the amount of carbon credit to be issued by TGO.
2. Project participant shall prepare Monitoring Report (MR) using the template provided by TGO which can be downloaded from T-VER website.
3. Project participant shall submit MR to VVB for verification. *(Project participant is responsible for the VVB verification fee.)*
4. Project participant shall submit verified document to TGO to request for credit issuance.

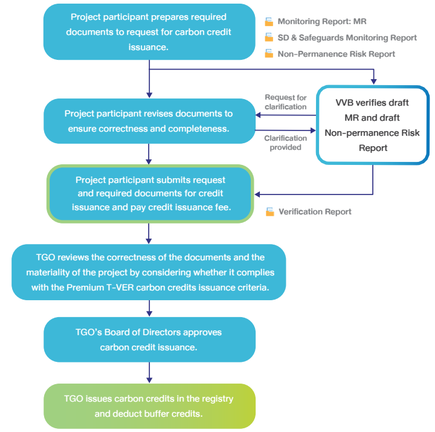
Premium T-VER Forestry Project Development Cycle

Step 1 Project Registration



Step 2 Carbon Credit Issuance

TGO recommends that request for carbon credit issuance be submitted every 5 years along with the preparation of Non-Permanence Risk Report to improve cost-efficiency of VVB's verification fee.



(TGO deducts buffer credits into pooled buffer account managed by TGO before issuing the remaining credits to the account of the project participant.)

THAILAND GREENHOUSE GAS MANAGEMENT ORGANIZATION
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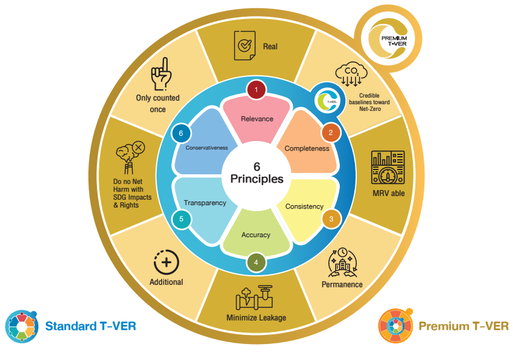
T-VER Forestry Projects

Thailand Voluntary Emission Reduction Program: T-VER

T-VER Forestry Projects

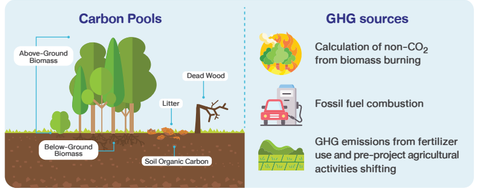
Thailand Greenhouse Gas Management Organization (Public Organization) or TGO, as an agency responsible for promoting mitigation action and management of GHG emissions in Thailand, has developed "Thailand Voluntary Emission Reduction Program" or "T-VER" to encourage voluntary mitigation action in Thailand. Emission reduction and/or removal or "carbon credits" generated from T-VER projects can be exchanged or traded and used to offset GHG footprints of organizations, events, individuals or products.

There are 2 types of T-VER: **Standard T-VER** and **Premium T-VER.**



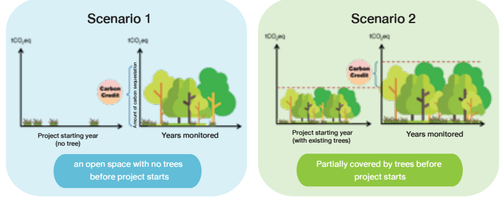
What kind of forestry activities can request carbon credit issuance?

An activity eligible to be developed into a T-VER project shall be **an activity that increase carbon stock in land**, **additional to what is required by law** and dose not violate any law relating to such activity. In case where an activity is implemented by government agencies, state enterprises and/or any agencies under the supervision of the government where the existing project area is forest, no alteration shall be made to the native ecosystems, and the document showing land use right such as a title deed (N.S.4), a certificate of utilization (N.S.3), or a document authorizing land utilization issued by relevant government agency shall be presented.



Calculation of GHG emissions from activities such as use of fossil fuel, use of nitrogen fertilizers and biomass burning shall comply with applicable T-VER methodologies.

Calculation of carbon sequestration for Standard T-VER projects



Standard T-VER Methodologies

1 Sustainable Forestation

- Proper tree planting, maintenance and management.
- Planting of perennial woody plants with no clear cut of project area for the period of 10 years from project start date.
- Having a minimum project area of 10 Rai with GHG removals must be less than 16,000 tCO_2eq/year.

2 Large-scale Sustainable Forestation

- Proper tree planting, maintenance and management.
- Planting of perennial woody plants with no no clear cut of project area for the period of 10 years from project start date.

3 Economic Fast-growing Tree Plantation

- Proper tree planting, maintenance and management.
- Planting of fast-growing trees as specified in TGO's announcement such as eucalyptus, acacia, mahogany and bamboo.
- Before project start date, no harvesting of timbers prior to the rotation age shall have been carried out in project area to planting of new cycle of fast-growing trees.
- No harvesting of all trees throughout project crediting period except for the purposes of conservation and forest management as specified in project management plan.

4 Reducing Emission from Deforestation and Forest Degradation and Enhancing Carbon Sequestration in Forest Area Project: (P-REDD+)

- Project area shall be forest with a minimum crown cover of 30 percent and trees reaching a minimum height of 3 meters when fully grown.
- Project area shall be an area with tendency conversion of forest land to non-forest land.
- Practices to prevent alteration of forest area for other purposes and/or involving activities to reduce forest degradation and/or activities contributing to enhanced carbon sequestration in forest area
- If project activity includes planting, planted species shall be compatible with the native ecosystems.

TGO certifies the amount of increased carbon sequestration or the amount of reduced GHG emissions from planting of trees and forest conservation compared to baseline scenario throughout the project duration of 10 years.

Calculation of carbon sequestration of trees in the area can be conducted by the following methods:
1. Tree counting (for a sub planting area of less than 30 Rai with total project area of less than 1,000 Rai)
2. Measurement of tree
3. Deployment of credible, technically reliable remote sensing technology

Premium T-VER Methodologies

Afforestation/Reforestation of Land (except wetlands)

- Planting of perennial woody plants.
- Preject area before **project start date is not forest.**

Forest = Area with a minimum crown cover of 30 percent and trees reaching a minimum height of 3 meters when fully grown

Afforestation/Reforestation of Degraded Mangrove Habitats

- Project area before **project start date is not forest.**
- Project activity can be a combination of mangrove and non-mangrove planting if the planting of mangrove species accounts for more than 90 percent of project area.

Reducing Emissions from Deforestation and Forest Degradation and Enhancing Carbon Sequestration in Forest Area Project Level: P-REDD+ (except wetlands)

- Project activity shall include at least one of the following.
  1) Practices to prevent alteration of forest area for other purposes.
  2) Practices to reduce forest degradation/practices to reduce GHG emissions from deforestation.
  3) Activities which contribute to increased carbon sequestration in forest area.
- Project area shall be forest.
- Project area shall be an area with high tendency conversion of forest land to non-forest land.

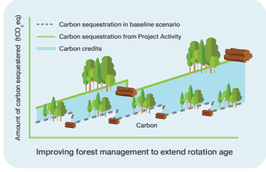
Mangrove and Seagrass Restoration

- Project activity shall be the restoration of intertidal wetlands which are mangroves and seagrass and shall include at least one of the following.
  1) Planting of mangrove or seagrass.
  2) Creating, restoring and/or managing hydrological conditions such as removing tidal barriers, improving hydrological connectivity etc.
  3) Altering sediment supply such as beneficial use of dredge material or diverting river sediments to sediment-starved areas etc.
  4) Improving salinity characteristics such as restoring tidal flow to todally restricted area etc.
  5) Improving water quality such as reducing nutrient level and reducing water turbidity to expand seagrass etc.
  6) Improving management practice such as removing invasive species etc.

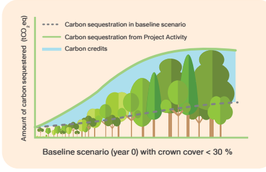
Improved Forest Management

- Improving forest management through extension of rotation age
- Project shall not be eligible under this methodology if commercial logging or harvesting of timbers would not occur in the baseline scenarios.
- Project shall be certified under at least one of sustainable forest management schemes i.e., FSC, PEFC or TFCC, before the first verification is performed. If commercial harvesting is carried out during the crediting period, certification shall be acquired before harvesting.

Methods for assessing carbon sequestration



Improving forest management to extend rotation age



Baseline scenario (year 0) with crown cover < 30 %

Additionality

Project activities has a starting date after 25th May 2022.

Demonstration of additionality for small-scale forestry projects (estimated amount of GHG sequestration not exceeding 16,000 tCO_2eq/year)

Project participants shall demonstrate that the project activity would not have occurred anyway due to at least one of the following barriers:

1. Investment barrier
2. Institutional barrier
3. Technological barrier
4. Barrier relating to local tradition
5. Barrier due to prevailing practice
6. Barrier due to local ecological condition

Demonstration of additionality for large-scale forestry projects

Step 1 Identification of alternative land-use scenarios
Step 2 Barrier analysis on each land-use alternative
Step 3 Investment analysis
Step 4 Common practice analysis

Differences between Standard T-VER and Premium T-VER

	Standard T-VER	Premium T-VER
Project start date	N/A	after 25th May 2022
Size of Project Area	Minimum 10 Rai	No minimum requirement
Additionality	Forestry project is under positive list	Demonstration of project activity additionality is required
Local stakeholder consultation	N/A	Project participant shall conduct a local stakeholder consultation, including informing the local stakeholders about the project details, calling for comments and input, participating in relevant problem solving and reaching a mutual agreement.
SD and Safeguard Assessment	N/A (Project Participant shall prepare Co-benefit Report)	The report shall include the assessment of SDG contribution (more than 2 goals), the consideration of legal rights/domestic regulations and the assessment on safeguards as required by laws/ regulations. Safeguards assessment shall include the assessment of negative impacts of project and proposed measures to ensure project do-no-net-harm which shall be reviewed by TGO.
Non-permanence Risk Report	N/A	Project participant shall prepare Non-Permanence Risk Report every 5 years throughout project crediting period. Non-Permanence Risk Report shall be verified by VVB.
Buffer Credit	N/A	Credits shall be deducted and recorded in the registry system as a collateral from Non-Permanence Risk from project implementation as specified by TGO.
Crediting Perlod	10 years (unlimited renewal)	15 years (renewal for 2 times) except otherwise specified in the applicable methodology.

Permanence

The achieved GHG reduction shall be permanent. The implementation of forestry and agriculture projects is subject to Non-Permanence Risk due to events such as illegal logging, wildfires, disease and pest outbreaks. Therefore, certain amount of credits shall be deducted and reserved in the pooled buffer account in the registry as a collateral where trading of such credits is not allowed. Project participant shall be eligible to withdraw buffer credits once Non-Permanence Risk Report is verified by VVB, demonstrating Project's capacity in managing Non-Permanence Risk and reducing long-term risks.

Non-permanence Risk Report

Internal risks	External risks	Natural risks
1.1 Project failure due to personnel	2.1 Land use right/Land ownership	3.1 Fire
1.2 Project failure due to technical	2.2 Community	3.2 Disease outbreaks
1.3 Project cumulative cash flow break-even point	2.3 Political	3.3 Storm
1.4 Opportunity cost	2.4 Illegal logging	3.4 Wildlife/ Pet invade
1.5 Financial stability and funding		3.5 Flood
1.6 project longevity		3.6 Droughts
		3.7 Changing Climate
		3.8 Landslide