



CONCEPT NOTE

Thailand Initiative

ASEAN Joint Work on GHG Emission Reduction Program on Crops (AGERcrops)

I. INTRODUCTION

One among the major climate change issues is the current increase in greenhouse gases and also a major problem affecting global warming. In 2018, Thailand reported 372,648.77 MtCO_{2eq} greenhouse gas emissions, of which 58.486 million tons came from agriculture. Internationally, there is a way to respond to the pressing threat of climate change, which is important to achieve the goals of the Paris Agreement, with additional goals to curb the rise in global temperatures to not exceeding 2 °C to 1.5 °C by 2021. Thailand presented at COP26 in Glasgow that Thailand will take steps to reduce greenhouse gas emissions by moving towards carbon neutrality by 2050, hence the target emission in the agricultural sector is at 0.5 MtCO_{2eq} million tons and net zero emissions by 2065. This is in line with international and national guidelines. In this regard, the Department of Agriculture has taken steps to reduce greenhouse gas emissions in the agricultural sector by setting up guidelines for greenhouse gas emission reduction particularly in crop production. The Department of Agriculture is also moving towards as a carbon credit certification agency for the agricultural sector. In particular, the preparation of national baselines in major economic crops in farming activities. Moreover, the increase in carbon sequestration in accordance with standards that may be developed in the form of Good Agricultural Practices (GAP), Carbon Credit Plus are taken as priority in the research and development agenda of the Department of Agriculture, including the development of carbon credit standards as incentives to the farmers and producers to transform into a more sustainable and climate resilience practices. Furthermore in compliance to the emerging environment trade regulations.

Scientists at the United Nations' Intergovernmental Panel on Climate Change (IPCC) have shown that increased levels of greenhouse gases (GHG) in the atmosphere are warming the planet. This creates extreme weather changes around the world. Currently, carbon dioxide is the main GHG and is created by burning fossil fuels—coal, oil and gas. By reducing the amount of carbon dioxide we emit, we may avoid doing further damage to our climate.

It is a fact that our region is now facing challenges regarding climate uncertainties. The agriculture sector especially the crop sector plays a major role in food production, however at the same time also has a big share for greenhouse gas emission, and even a source of air pollution or PM 2.5 due to farming malpractices.

Thailand has taken steps to address these challenges by prioritizing in its agricultural policies the promotion of Good Agricultural Practices (GAP) Plus and the Good Manufacturing Practice (GMP) Plus in food production system. It also serves as standards to comply with international trade standards.

Thailand also is driving actions towards the reduction of Greenhouse Gas Emission through another program called “GAP Carbon Credit Plus and GAP PM 2.5 Plus”. The Department of Agriculture has signed an MOU with the Thailand Greenhouse Gas Management Organization (TGO) particularly for capacity building to be Validation and Verification Body) and to develop research and development on Carbon Credit Baseline.

However, Thailand alone could not solve these problems. The negative impact it caused are regional in nature. The ASEAN Member States have to join forces to tackle this threat for food security, environment sustainability, health and livelihood of the people in the ASEAN Community.

Thailand therefore would like to take this ASEAN CRN platform to propose a regional project entitled ASEAN Joint Work on Greenhouse Gas Reduction Emission Program on Crops or AGERcrops that would prioritize on baselining for carbon credits in major economic crops. Thailand would like to share Thailand's experience on how we implement our Thailand Voluntary Emission Reduction (T-VER) programme. Therefore Thailand is proposing to upscale this kind of initiatives at the ASEAN Regions, at the same time Thailand would also like to learn from all ASEAN Member States on how they manage these climate challenges we all face.

Currently, Thailand has guidelines and mechanisms for managing carbon credits to support the achievement of the country's greenhouse gas reduction targets. Nationally Determined Contribution (NDC) to reduce greenhouse gases covering the energy field. Transportation, industry and waste management to reach 20-25% by 2030.

Among the challenges faced in carbon credit scheme is the lack of Green Data to help support credit considerations: At present, the Bank has very little green data and if there are other **green** data to consider lending, together with carbon credit data such as Green Asset Ratio (GAR), it will increase the efficiency of lending. In addition, if there are more green specialists, it will help to support the knowledge and tools to better support lending. There are also data collections and storage challenges which is another important issue because the data is distributed among different departments. Therefore creating a **database** or a central platform, but have different levels of information in each sector to prevent damage from business disclosure, but still promote disclosure and equality between banks to prevent difficulties in lending would be crucial.

The ASEAN Climate Resilience Network (ASEAN-CRN) was established in 2014 by the ASEAN Technical Working Group on Agricultural Research and Development (ATWGARD) has been an important channel and platform to ensure that the agriculture sector of ASEAN member states (AMS) is better-positioned to adapt to climate change and optimize its mitigation potential. ASEAN-CRN promotes climate resiliency through the exchange of information, expertise, and experiences on climate-smart approaches to food systems. Since its formation, the network has significantly advanced the agenda of agriculture and climate change in ASEAN by providing a dialogue platform and linking policymakers with the scientific community. ASEAN-CRN has also supported the establishment of the ASEAN Negotiating Group for Agriculture (ANGA) which has engaged with the United Nations Framework Convention on Climate Change (UNFCCC) in shaping policies relevant to agriculture, most notably the Koronivia Joint Work on Agriculture and its follow-up implementation plan at COP27 in Sharm El Sheikh, Egypt.

The ASEAN-CRN and ANGA have produced a variety of policy guidelines and outputs to support ASEAN in its transformation to low emissions and resilient agrifood systems through the publications of ASEAN Regional Guidelines for Promoting Climate Smart Agriculture Practices, Volumes 1, 2 and 3; ASEAN Public-Private Partnership Regional Framework for Technology Development in the Food, Agriculture and Forestry (FAF) Sectors; and ASEAN Guidelines for Gender Mainstreaming in the Food, Agriculture and Forestry Sectors. The network also put forward joint submissions to UNFCCC calls for views in every

session of the Conference of the Parties (COP). Furthermore acted as a very active platform for knowledge exchanges which have resulted in several collaborations and partnerships with multi-stakeholders across the region.

In recognition to the one of the world's first multi-country and sectoral proposals to the Green Climate Fund's Readiness Grant, the just recently approved GCF project on Agriculture Sector Readiness for Enhanced Climate Finance and Implementation of Koronivia Joint Work on Agriculture Priorities in Southeast Asia developed by the Food and Agriculture Organization to create business plans backed by climate science that will bring the necessary investments for accelerating transformation in the agrifood systems for the region. Thailand therefore takes this golden opportunity to develop a proposal for Thailand's Initiative on ASEAN Joint Work on Greenhouse Gas Reduction Emission Program on Crops or AGERcrops aimed to share lessons from the Thailand Voluntary Emission Reduction Program (T-VER) and aimed towards upscaling this initiative to the ASEAN Region in order to scale-up a more ambitious climate actions specifically on meeting GHG emission targets.

II. WHAT ARE CARBON CREDITS?

Carbon credits, also known as carbon offsets, are permits that allow the owner to emit a certain amount of carbon dioxide or other greenhouse gases. One credit permits the emission of one ton of carbon dioxide or the equivalent in other greenhouse gases. the carbon credit system leads to measurable, verifiable emission reductions from certified climate action projects, and that these projects reduce, remove, or avoid greenhouse gas (GHG) emissions.

Proponents of Carbon credits were devised as a mechanism to reduce greenhouse gas emissions. Carbon credits create a monetary incentive for producers to reduce their carbon emissions. Nations are allotted a certain number of credits and may trade them to help balance total worldwide emissions.

Worldwide Carbon Credit Initiatives

The United Nations' Intergovernmental Panel on Climate Change (IPCC) developed a carbon credit proposal to reduce worldwide carbon emissions in a 1997 agreement known as the Kyoto Protocol. The agreement set binding emission reduction targets for the countries that signed it. Another agreement, known as the Marrakesh Accords, spelled out the rules for how the system would work.

The Kyoto Protocol divided countries into industrialized and developing economies. Industrialized countries, collectively called Annex 1, operated in their own emissions trading market. If a country emitted less than its target amount of hydrocarbons, it could sell its surplus credits to countries that did not achieve its Kyoto level goals, through an Emissions Reduction Purchase Agreement (ERPA).

The separate Clean Development Mechanism for developing countries issued carbon credits called a Certified Emission Reduction (CER). A developing nation could receive these credits for supporting sustainable development initiatives. The trading of CERs took place in a separate market.

The Paris Climate Agreement

The Kyoto Protocol was revised in 2012 in an agreement known as the Doha Amendment, which was ratified as of October 2020, with 147 member nations having "deposited their instrument of acceptance. More than 190 nations signed on to the Paris Agreement of 2015, which also sets emission standards and allows for emissions trading.

The Paris Agreement, also known as the Paris Climate Accord, is an agreement among the leaders of more than 180 countries to reduce greenhouse gas emissions and limit the global temperature increase to below 2 °C (36 °F) above preindustrial levels by the year 2100.

The Glasgow COP 26 Climate Change Summit

Negotiators at the summit in November 2021 inked a deal that saw nearly 200 countries implement Article 6 of the 2015 Paris Agreement, allowing nations to work toward their climate targets by buying offset credits that represent emission reductions by other countries. The hope is that the agreement encourages governments to invest in initiatives and technology that protect forests and build renewable energy technology infrastructure to combat climate change.

III. . THAILAND VOLUNTARY EMISSION REDUCTION PROGRAM (T-VER)

General Information of T-VER

T-VER is a domestic Greenhouse Gas (GHG) mitigation mechanism. It aims to promote cooperation of all relevant sectors in GHG reduction. The Thailand Greenhouse Gas Management Organization (Public Organization) or TGO has the responsibility to define criteria, project development process, methodology, registration, and credit issuance.

The objectives of T-VER is three-fold as follows;

1. To promote participation for domestic voluntary GHG mitigation in Thailand.
2. To promote domestic carbon market.
3. To prepare readiness of all sectors in cope with GHG mitigation commitment

T-VERs Credit Reliability

1. T-VER's framework is in correspondence with the ISO 14064-2, ISO 14064-2 specifies principles and requirements and provides guidance at the project level for quantification, monitoring and reporting of activities intended to cause greenhouse gas (GHG) emission reduction or removal enhancements.
2. Monitoring and Verification framework of GHG emission is also in correspondence with the ISO 14064-3, ISO 14064-3 specifies principles and requirements and provides guidance for those conducting or managing the validation and/or verification of greenhouse gas (GHG) assertions.
3. Validation and Verification Body (VVB) is an independent auditor accredited by the CDM Executive Board (CDM EB) or accredited in the ISO 14065 by accreditation body that is a member of International Accreditation Forum (IAF) and registered by TGO.

Carbon Credits of T-VER is GHGs express in the unit of tCO₂eq that can be reduced or removed from GHG reduction project which are certified and issued in the registry system.

T-VER Methodology in Agricultural Sector

Standard T-VER : Two methodologies

1. Good Fertilization Practice in Agricultural Land
2. Carbon Sequestration and Reducing Emission for Perennial Crop Plantation

Premium T-VER : One methodology

1. Enhanced Good Practices in Agricultural Land

IV. OBJECTIVES OF THE ASEAN Joint Work on Greenhouse Gas Reduction Emission Program on Crops or AGERcrops

The creation of AGERcrops is proposed with the following objectives:

1. Knowledge exchanges to develop guidelines to support greenhouse gas emission reduction in the agricultural sector to be recognized both in the national and international level.
2. Knowledge exchanges to develop standard methodology for baselining for GHG emission reduction in the agricultural sector for major economic crops both at national and international level.
3. Knowledge exchanges to develop operational guidelines for obtaining carbon credit certification for crops in farming communities and the private sectors both at national and international level.
4. Scaling-up of the carbon credits schemes in the agricultural sectors both national and regional level.

V. BASELINING ACTIVITIES

Activity 1: Preparation of baseline emissions on carbon sequestration and greenhouse gas emissions prior to the project for major economic crops (sugarcane, cassava, rubber, fruits trees/perennial crops, field corn, palm oil tree)

Activity 2: Study carbon sequestration and greenhouse gas emission reduction in major economic crops (sugarcane, cassava, rubber, fruits trees/perennial crops, field corn, palm oil tree)

Activity 3 : Development of carbon baseline database for major economic crops for carbon credits/offset market.

Activity 4 : Stocktaking on carbon pathways in the agriculture sector.

FOR CONSIDERATION BY THE 8th ASEAN CRN Meeting

1. Adoption of Thailand's Initiative on ASEAN Joint Work on ASEAN Joint Work on GHG Emission Reduction Program on Crops (AGERcrops) for submission to the 17th ATWGARD for endorsement.
2. Open for discussion and suggestions.
3. The ASEAN Secretariat to provide guidance to Thailand on the next steps.

