

**ASEAN PLUS THREE COMPREHENSIVE STRATEGY ON FOOD SECURITY
AND BIOENERGY DEVELOPMENT (APTCS-FSBD) FRAMEWORK**

AND

**STRATEGIC PLAN OF ACTION ON FOOD AND ENERGY SECURITY
(SPA-FES)**

2010-2013

BACKGROUND

The sharp increase in the prices of international food and fossil fuel in 2007/2008 has brought serious concern on the ASEAN Plus Three (APT) countries particularly on the long-term socio-economic impacts in the region. In the light of ongoing volatility in food and energy prices, which have affected the livelihood and economic growth in the region, the APT countries bonded themselves together to ensure food and energy security and development of sustainable bioenergy through the strengthening of existing APT initiatives and frameworks.

There are a number of attributable factors and drivers to this current state of the markets for food and energy products. On the food supply side, the sharp rise of agricultural production cost led by fuel oil and fertilizers, drop in yield and production resulting from irregular climate patterns, and higher cost of storing perishable goods, among others, contribute substantially to the rise of food prices. On the food demand side, structural change of global demand for food commodities, competing demand for some agricultural commodities and land use for the emerging biofuel market coupled with agricultural market speculation contributed to the soaring food prices. On the other hand, the high costs of fuel are caused largely by the supply and demand for crude oil, which is the benchmark for all energy sources.

The interplay of these factors led the rapid growth of bioenergy over the last few years, particularly in liquid biofuels for transport. More specifically, the rising oil prices have had an important effect of making alternative energy sources more viable. However, this rising demand for liquid biofuels is one of several factors driving up commodity and food prices as food and bioenergy crops are now competing for land, water and other resources in many parts of the world. It has been recognised that bioenergy offers many new opportunities as it can contribute to achieving several policy objectives such as agricultural and rural development, climate change mitigation and energy security. Nonetheless, bioenergy may also carry significant risks especially if not managed carefully.

Through this recognition on the potentials and possible adverse impacts of bioenergy particularly to food security that APT countries emphasised the need for clear policy, legislative framework and supporting programme to be put in place to ensure that bioenergy, particularly biofuel production, is sustainable and not giving adverse impacts to food security and farmers' livelihood.

Providing impetus to this need include the 2nd Joint Statement on East Asia Cooperation and the ASEAN Plus Three Cooperation Work Plan (2007-2017) adopted at the 11th ASEAN Plus Three Summit in Singapore in November 2007 that called for wideranging areas of cooperation, including food and energy security; the Cebu Declaration on East Asian Energy Security on 15 January 2007 to improve energy efficiency and conservation, promote fuel diversification, and enhance cooperation on research and development for new and renewable energy sources and technologies, including bio-fuels; the Rome Declaration on World Food Security and the World Food Summit Plan of Action at the World Food Summit in

1996 and the Declaration adopted at the FAO High-level Conference on World Food Security: the Challenges of Climate Change and Bio-energy held in June 2008 and the Comprehensive Framework for Action for the High Level Task Force on the Global Food Security Crisis; and the Cha-am Hua Hin Statement on ASEAN Plus Three Cooperation on Food Security and Bioenergy Development on 24 October 2009 for the development of a comprehensive strategy on sustainable and integrated biofuels production and consumption that will promote a better allocation of resources for the production of both food and biofuels, which will ensure the compatibility with food production.

In progressing this mandate, the Special Senior Officials Meeting of the Ninth Meeting of the ASEAN Ministers on Agriculture and Forestry Plus Three on 4 August 2010 in Bandar Seri Begawan, supported in principle the concept note on the ASEAN Plus Three Comprehensive Strategy on Food Security and Bioenergy Development as presented by the ASEAN Secretariat and agreed to the proposed principle that the Comprehensive Strategy should foster and coordinate existing initiatives (i.e. ASEAN Integrated Food Security (AIFS) Framework, the on-going development of ASEAN Plus Three Emergency Rice Reserve (APTERR), the ASEAN Food Security Information System (AFSIS), the ASEAN Plan of Action on Energy Cooperation (APAEC), Asia Biomass Energy Principles, and ASEAN Plan of Action on Science and Technology (APAST) Flagship Programme on Biofuels) currently promoted by relevant sectors of the ASEAN Plus Three countries rather than develop a new initiative.

ASEAN PLUS THREE COMPREHENSIVE STRATEGY ON FOOD SECURITY AND BIOENERGY DEVELOPMENT (APTCS-FSBD) FRAMEWORK

In addressing the long-term food and energy security in the APT countries, this APTCS-FSBD Framework is developed to provide scope and joint pragmatic approaches for cooperation among ASEAN Plus Three Countries.

The APTCS-FSBD Framework provides Goal, Objectives, Definition of Terminology, Guiding Reference and Principles, and Components, which are supported by a Strategic Plan of Action on Food and Energy Security (SPA-FES).

GOAL

The goal of APTCS-FSBD is to foster multi-sectoral cooperation among the ASEAN Plus Three Countries in ensuring long-term food security and bioenergy development.

OBJECTIVES

To achieve the goal, the APTCS-FSBD has the following objectives:

- a) To clarify potentials, implications and interlinkages of biofuels to food and energy security;
- b) To promote bio-energy development for sustainable agricultural development and farmers' livelihoods; and
- c) To strengthen national policy on sustainable bio-energy development

DEFINITIONS

Bioenergy is the energy derived from biofuels. **Biofuel** is the fuel produced directly or indirectly from biomass such as fuelwood, charcoal, bioethanol, biodiesel, biogas (methane) or biohydrogen. Biomass is a non-fossil material of biological origin, such as energy crops, agricultural and forestry wastes and by-products, manure or microbial biomass (FAO).

Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life. (World Food Summit, 1996)

This widely accepted definition points to the following dimensions of food security:

Food availability: The availability of sufficient quantities of food of appropriate quality, supplied through domestic production and/ or imports (including food aid).

Food accessibility: Access by individuals to adequate resources (entitlements) for acquiring appropriate foods for a nutritious diet. Entitlements are defined as the set of all commodity bundles over which a person can establish command given the legal, political, economic and social arrangements of the community in which they live (including traditional rights such as access to common resources).

Utilization: Utilization of food through adequate diet, clean water, sanitation and health care to reach a state of nutritional well-being where all physiological needs are met. This brings out the importance of non-food inputs in food security.

Stability: To be food secure, a population, household or individual must have access to adequate food at all times. They should not risk losing access to food as a consequence of sudden shocks (e.g. an economic or climatic crisis) or cyclical events (e.g. seasonal food insecurity). The concept of stability can therefore refer to both the availability and access dimensions of food security.

GUIDING REFERENCE AND PRINCIPLES

To support the formulation and implementation of APTCS-FSBD Framework and SPA-FES, the following guiding references and principles should be taken into consideration:

- 2nd Joint Statement on East Asia and the APT Cooperation Work Plan (2007-2017) including AMAF Plus Three and AMEM Plus Three Cooperation Plans
- Complementing and supporting existing initiatives such as the AIFS Framework for Food Security, and APAEC, Asia Biomass Energy Principles, APAST Flagship Programme: Biofuels, on Bioenergy Development
- Correlation between food and energy security with the view to balance food and fuel crop production so as to ensure sustainable food security
- Each country needs to maximise the use of its own potential resources and to achieve greater agricultural production in a sustainable manner

COMPONENTS

The APTCS-FSBD Framework comprises three Components, which are distinctive but inter-related in nature to facilitate cooperation in addressing food security and bio-energy development in the region. The APTCS-FSBD Framework's Components are supported by six corresponding Strategic Thrusts as follows:

Component 1: *Bio-fuel Production vis-a-vis Food and Energy Security*

Strategic Thrust 1: Expounding the potentials and implications of bio-fuel production to food and energy security

Strategic Thrust2: Identification and addressing emerging issues on bio-fuel development with food and energy security

Component 2: *Alternative Sources of Energy and Agricultural Innovation*

Strategic Thrust3: Promotion of bio-energy development from agricultural wastes towards cost reduction of agricultural inputs, improvement of farmer's livelihoods, long-term rural development and food security

Strategic Thrust4: Enhancement of cooperation on research and development for new and renewable energy sources

Component 3: *Sustainable Food and Energy Security*

Strategic Thrust5: Strengthening of national policy on sustainable bio-energy development striking the balance of food and fuel crop production under the food security principles

Strategic Thrust6: Enhancement of consultation mechanisms between the food and energy sectors

STRATEGIC PLAN OF ACTION

The Strategic Plan of Action outlines the six corresponding Strategic Thrusts of the APTCS-FSBD Framework's Components. Each Strategic Thrust is supported by Action Programme(s), Activity, Responsible Agencies and Work Schedule. As a basis for elaboration of future projects, initial Sub-activities are identified. Detailed information of the Action Plan is summarized in a Matrix, which appears as **Appendix 1**.

STRATEGIC THRUSTS/ACTION PROGRAMMES/ACTIVITIES

Strategic Thrust 1: Expounding the potentials and implications of biofuel production to food and energy security

Action Programme 1.1: Address the development of biofuels in consideration with food and energy security

Activity 1.1.1: Review status and progress of biofuel development in the APT countries

Activity 1.1.2: Conduct comprehensive assessment to determine potential benefits and negative externalities of biofuel development on food and energy security

Strategic Thrust 2: Identification and addressing emerging issues on biofuel development with food and energy security

Action Programme 2.1: Address impacts of biofuel development on climate change and the environment

Activity 2.1.1: Conduct study to identify possible impacts of biofuel development on climate change and the environment

Activity 2.1.2: Identify measures and support initiatives to adapt/mitigate the possible impacts of biofuel development on climate change and the environment

Activity 2.1.3: Monitor the Carbon Trading Fund and its implications for the future

Strategic Thrust 3: Promotion of bio-energy development from agricultural wastes towards cost reduction of agricultural inputs, improvement of farmers' livelihoods, long-term rural development and food security

Action Programme3.1: Promote APT partnership for green development of agriculture

Activity 3.1.1: Support commercialisation of biomass energy technology and products

Activity 3.1.2: Promote investment in rural biomass energy to improve efficiency, effectiveness and safety of traditional technologies being used

Action Programme3.2: Strengthen cooperation and partnership among APT countries and international development partners on technical and institutional capacity building

Activity 3.2.1: Organise and conduct seminars and trainings to upgrade knowledge and skills of farmers and community organisations

Activity 3.2.2: Utilise and develop platforms to facilitate sharing of information and experiences particularly on appropriate technologies for rural biomass energy development

Strategic Thrust 4: Enhancement of cooperation on research and development for new and renewable energy sources

Action Programme4.1: Stimulate and support R&D on new and renewable energy sources

Activity4.1.1: Encourage development of commercially viable second generation biofuels

Activity 4.1.2: Promote R&D networking for renewable energy development

Strategic Thrust 5: Strengthen national policy on sustainable bioenergy development striking the balance of food and fuel crop production under the food security principles

Action Programme5.1: Promote clear policy/legislative/institutional frameworks and support programmes

Activity 5.1.1: Review and revise relevant national food and energy policy/legislative/institutional frameworks with the objective of aligning them with regional and international guidelines and conventions

Action Programme5.2: Promote adaptation of integrated local food-energy production systems and practices

Activity 5.2.1: Adopt good agricultural practices

Activity 5.2.2: Establish pilot farms and test facilities to determine feasibility of the system

Activity5.2.3: Conduct impact assessment studies

Action Programme 5.3: Promote conducive environment for partnership and investment on bioenergy development

Activity 5.3.1: Set clear criteria and indicators to steer decision-making and aid programme design, both at the investment and at policy level

Activity 5.3.2: Address infrastructure needs particularly for transportation and logistics

Activity 5.3.3: Promote optimisation of land use

Strategic Thrust 6: Enhance consultation mechanisms between the food and energy sectors

Action Programme 6.1: Promote closer collaboration to accelerate transfer and sharing of information

Activity 6.1.1: Establish consultative fora at national and regional level to exchange information and experiences on status, trends, initiatives, technologies, policies, etc., that are of common concern to both sectors

Activity 6.1.2: Establish regional networks to foster and facilitate cooperation and exchange such as designation of focal points and use of web-based media

IMPLEMENTATION

The ASEAN Plus Three Comprehensive Strategy on Food Security and Bioenergy Development (APTCS-FSBD) Framework is supported by the Strategic Plan of Action on Food and Energy Security (SPA-FES), which covers a three-year period of 2010-2013. Consultations with relevant bodies/stakeholders at the regional and national levels should be conducted to obtain relevant inputs to ensure consistency of the Strategic Thrusts, and Action Programmes/Activities as well as promote sense of greater ownership of the APTCS-FSBD Framework and the SPA-FES.

For the successful implementation of the APTCS-FSBD Framework and the SPA-FES, the necessary institutions or mechanisms, resources, capacity and political will be accorded to the implementation process.

Implementation Mechanism

The AMAF Plus Three is the main responsible body, with support from ASEC (AINR, Infrastructure and S&T Divisions), that will coordinate the implementation of the APTCS-FSBD Framework and SPA-FES, in consultation with AMEM and development partners (e.g. ASEAN Center for Energy, World Bank, ADB, USAID). Relevant government agencies will be responsible for overseeing the implementation and preparation of more detailed action plans at the national level. Partnership and cooperation arrangements with the international organisations, donor agencies, private sector, industry associations and the wider community at the regional and national levels will also be actively sought where required to ensure participation of all stakeholders in the implementation process.

Relevant ASEAN Sectoral Working Groups under AMAF are tasked to elaborate details and arrangement of the implementation of SPA-FES on areas of their competence as outlined in the Matrix of SPA-FES.

To allow for effective implementation of the APTCS-FSBD Framework and the SPA-FES, partnership and cooperation arrangements with international organisations and donor agencies should be promoted.

Progress in the implementation of the APTCS-FSBD Framework and the SPA-FES by the APT countries needs to be monitored, reviewed and reported to relevant stakeholders annually. The ASEAN Secretariat shall review and monitor compliance of such implementation.

Resource Mobilisation

As for the financial resources, the basic arrangement to support the implementation of the APTCS-FSBD Framework and the SPA-FES is by cost-sharing among the APT countries through the APT Cooperation Fund. Additional financial support for implementation of activities and sub-activities should be sought from Dialogue Partners and international organisations and donor agencies (e.g. World Bank, ADB).

Research and capacity building support is to be mobilised from various facilities such as the ASEAN Development Fund, the ASEAN Foundation, etc.

Communication

Success of the implementation of the APTCS-FSBD Framework and the SPA-FES requires involvement by all stakeholders. A good communication programme is required to create greater public awareness of the implementation of the APTCS-FSBD Framework and the SPA-FES as well as to keep all stakeholders informed of the progress of such implementation in order to avoid confusion and misunderstanding on the status of food security in the region.

Review

The APTCS-FSBD Framework and the SPA-FES shall be reviewed periodically taking into account dynamic regional and global developments and evaluated after the end of three year period in 2013.

**Matrix of Strategic Plan of Action on Food and Energy Security in the APT Countries
2010-2013**

Strategic Thrust 1: *Expounding the potentials and implications of biofuel production to food and energy security*

Action Programme	Activities	Responsible Bodies	Work Schedule
1.1 Address the development of biofuels in consideration with food and energy security	1.1.1 Review status and progress of biofuel development in the APT countries	SOM-AMAF Plus 3 &SOME Plus 3	2011-2012
	1.1.2 Conduct comprehensive assessment to determine potential benefits and negative externalities of biofuel development	SOM-AMAF Plus 3 &SOME Plus 3	2011-2012

Strategic Thrust 2: *Identification and addressing emerging issues on biofuel development with food and energy security*

Action Programme	Activities	Responsible Bodies	Work Schedule
2.1 Address impacts of biofuel development on climate change and the environment	2.1.1 Conduct study to identify possible impacts of biofuel development on climate change and environment	SOM-AMAF Plus 3 &SOME Plus 3	2011
	2.1.2 Identify measures and support initiatives to adapt/mitigate the possible impacts of biofuel development on climate change and environment	SOM-AMAF Plus 3 &SOME Plus 3	2011-2012
	2.1.3 Monitor the Carbon Trading Fund and its implications for the future	SOM-AMAF Plus 3 &SOME Plus 3	2010-2013

Strategic Thrust 3: *Promotion of bioenergy development from agricultural wastes towards cost reduction of agricultural inputs, improvement of farmers' livelihoods, long-term rural development and food security*

Action Programme	Activities	Responsible Bodies	Work Schedule
3.1 Promote APT partnership for green development of agriculture	3.1.1 Support commercialisation of biomass energy technology and products	SOM-AMAF Plus 3	2011-2013
	3.1.2 Promote investment in rural biomass energy to improve efficiency, effectiveness and safety of traditional	SOM-AMAF Plus 3	2011-2013

	technologies being used		
3.2 Strengthen cooperation and partnership among APT countries and international development partners on technical and institutional capacity building	3.2.1 Organise and conduct seminars and trainings to upgrade knowledge and skills of farmers and community organisations	SOM-AMAF Plus 3	2011-2013
	3.2.2 Utilise and develop platforms to facilitate sharing of information and experiences particularly on appropriate technologies for rural biomass energy development	SOM-AMAF Plus 3	2011-2013

Strategic Thrust 4: Enhancement of cooperation on research and development for new and renewable energy sources

Action Programme	Activities	Responsible Bodies	Work Schedule
4.1 Stimulate and support R&D on renewable energy sources	4.1.1 Encourage development of commercially viable second generation biofuels	SOM-AMAF Plus 3 & SOME Plus 3	2011-2013
	4.1.2 Promote R&D networking for renewable energy development	SOM-AMAF Plus 3 & SOME Plus 3	2011-2013

Strategic Thrust 5: Strengthen national policy on sustainable bioenergy development striking the balance of food and fuel crop production under the food security principles

Action Programme	Activities	Responsible Bodies	Work Schedule
5.1 Promote clear policy/legislative/institutional frameworks and support programmes	5.1.1 Review and revise relevant national food and energy policy/legislative/institutional frameworks with the objective of aligning them with regional and international guidelines and conventions	SOM-AMAF Plus 3 & SOME Plus 3	2011-2013
5.2 Promote adaptation of integrated local food-energy production systems and practices	5.2.1 Adapt good agricultural practices	SOM-AMAF Plus 3 & SOME Plus 3	2011-2013
	5.2.2 Establish pilot farms and test facilities to determine feasibility of the integrated system	SOM-AMAF Plus 3 & SOME Plus 3	2011-2012
	5.2.3 Conduct impact assessment studies	SOM-AMAF Plus 3 & SOME Plus 3	2013
5.3 Promote conducive environment for partnership and investment on	5.3.1 Set clear criteria and indicators to steer decision-making and aid programme design, both at the	SOM-AMAF Plus 3 & SOME Plus 3	2012-2013

bioenergy development	investment and policy levels.		
	5.3.2 Address infrastructure needs particularly for transportation and logistics	SOM-AMAF Plus 3 &SOME Plus 3	2011-2013
	5.3.3 Promote optimisation of land use	SOM-AMAF Plus 3 &SOME Plus 3	2011-2013

Strategic Thrust 6: Enhance consultation mechanisms between the food and energy sectors

Action Programme	Activities	Responsible Bodies	Work Schedule
6.1 Promote closer collaboration to accelerate transfer and sharing of information and experiences	6.1.1 Establish a consultative forum at national and regional levels to exchange information and experiences on status, trends, initiatives, technologies, policies, etc., that are of common concern to both sectors	SOM-AMAF Plus 3 &SOME Plus 3	2011-2013
	6.1.2 Establish regional networks to foster and facilitate coordination and exchange such as designation of national focal points and use of web-based media	SOM-AMAF Plus 3 &SOME Plus 3	2011-2013

final