



Technical Assistance Report

Project Number: 47208
Research and Development Technical Assistance (RDТА)
July 2014

Food Security and Resilience of the Association of Southeast Asian Nations Member States to Food Price Volatility (Financed by the Japan Fund for Poverty Reduction)

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Asian Development Bank

ABBREVIATIONS

ADB	–	Asian Development Bank
AEC	–	ASEAN Economic Community
AFSIS	–	ASEAN Food Security Information System
AFSRB	–	ASEAN Food Security Reserve Board
AIFS	–	ASEAN Integrated Food Security Framework
APTERR	–	ASEAN Plus Three Emergency Rice Reserve
ASEAN	–	Association of Southeast Asian Nations
SOM-	–	senior officials meeting of the ASEAN ministers on agriculture
AMAF		and forestry
SPAFS	–	Strategic Plan of Action on Food Security
TA	–	technical assistance

NOTE

In this report, "\$" refers to US dollars.

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RESEARCH AND DEVELOPMENT TECHNICAL ASSISTANCE AT A GLANCE

1. Basic Data		Project Number: 47208-001	
Project Name	Food Security and Resilience of the Association of Southeast Asian Nations Member States to Food Price Volatility	Department /Division	RSDD/RSDD-AR
Country	REG, BRU, CAM, INO, LAO, MAL, MYA, PHI, SIN, THA, VIE	Executing Agency	Asian Development Bank
Borrower	not applicable		
2. Sector	Subsector(s)	Financing (\$ million)	
✓ Agriculture, natural resources and rural development	Agricultural policy, institutional and capacity development		0.80
		Total	0.80
3. Strategic Agenda	Subcomponents	Climate Change Information	
Inclusive economic growth (IEG)	Pillar 2: Access to economic opportunities, including jobs, made more inclusive	Climate Change impact on the Project	Low
Regional integration (RCI)	Pillar 4: Other regional public goods		
4. Drivers of Change	Components	Gender Equity and Mainstreaming	
Partnerships (PAR)	Implementation Regional organizations	No gender elements (NGE)	✓
5. Poverty Targeting		Location Impact	
Project directly targets poverty	No	Not Applicable	
6. TA Category:	B		
7. Safeguard Categorization	Not Applicable		
8. Financing			
Modality and Sources		Amount (\$ million)	
ADB		0.00	
None		0.00	
Cofinancing		0.80	
Japan Fund for Poverty Reduction		0.80	
Counterpart		0.00	
None		0.00	
Total		0.80	
9. Effective Development Cooperation			
Use of country procurement systems		No	
Use of country public financial management systems		No	

I. INTRODUCTION

1. This technical assistance (TA)¹ will support the Association of Southeast Asian Nations (ASEAN)² in its implementation of the ASEAN Integrated Food Security Framework (AIFSF)³ and the second phase of the Strategic Plan of Action for Food Security (SPAFS), which will cover 2015–2019. The Asian Development Bank (ADB) discussed the TA at the 33rd meeting of the ASEAN Food Security Reserve Board (AFSRB) in Yogyakarta, Indonesia on 6–7 June 2013. The members of the AFSRB endorsed the TA.⁴

II. ISSUES

2. Rice prices spiked by as much as 300% during some months in 2007–2008, adversely impacting about 13.7 million poor people in Southeast Asia.⁵ ASEAN responded by establishing the AIFSF and an accompanying SPAFS for 2008–2013. The AIFSF has four main components: (i) food security and emergency shortage relief; (ii) sustainable food trade development; (iii) integrated food security information system; and (iv) agricultural innovation. ADB technical assistance in 2010 for the ASEAN Plus Three Integrated Food Security Framework supported the first three components, with funding from the Government of Japan through the Japan Fund for Poverty Reduction.⁶ The TA facilitated the development of the protocols for the ASEAN Plus Three Emergency Rice Reserve (APTERR).⁷ It piloted the multi-stakeholder ASEAN Rice Trade Forum as a platform to discuss evidence-based policies that would be conducive to regional rice trade and investments and to make recommendations to a senior officials meeting of the ASEAN ministers on agriculture and forestry (SOM-AMAF). It also helped improve the regional food market information database. The TA was completed in October 2013 with the drafting of phase two of the SPAFS, which will be presented for consideration by the SOM-AMAF.

3. Considerable headway was made on implementing the SPAFS with the TA support, but much still needs to be done. The TA's key lesson was that ASEAN's regional public goods and services are aimed in the right direction but need to be strengthened further to boost the resilience of ASEAN member states to volatility in rice prices. More specifically, improvements are necessary in ASEAN's (i) regional rice reserve system, (ii) rice and food trade policies, and (iii) regional food market information system.

4. Although implementation of the APTERR protocol arrangements since the reserve became operational in 2012 has been adequate and its response has been fairly quick, the APTERR is still in its infancy and key issues need to be addressed. The first involves the need to identify the appropriate size of both the total reserve and individual country pledges. Of the

¹ The TA first appeared in the business opportunities section of ADB's website on 15 May 2014.

² ASEAN comprises Brunei Darussalam, Cambodia, Indonesia, Lao People's Democratic Republic, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Viet Nam.

³ The AIFSF was drawn up in August 2008 during the 29th special senior officials meeting of the ASEAN ministers on agriculture and forestry in Chiang Mai, Thailand. Its goal is to ensure long-term food security and to improve the livelihoods of farmers in the ASEAN region. Its specific objectives are to (i) increase food production, (ii) reduce post-harvest losses, (iii) promote markets and trade for agriculture commodities and inputs, (iv) ensure food stability, (v) promote the availability of and accessibility to agriculture inputs, and (vi) operationalize regional food emergency relief arrangements.

⁴ The TA design and monitoring framework is in Appendix 1.

⁵ ADB. 2012. *Food Security and Poverty in Asia and the Pacific: Key Challenges and Policy Issues*. Manila.

⁶ ADB. 2010. *Technical Assistance for Support for the Association of Southeast Asian Nations Plus Three Integrated Food Security Framework*. Manila.

⁷ The agreement establishing the APTERR was signed by the ASEAN Plus Three Ministers on Agriculture and Forestry on 7 October 2011 and came into force on 12 July 2012.

current virtual regional rice reserve, which is equivalent to 780,000 metric tons, more than two-thirds have been committed by the Plus Three, non-ASEAN countries—the People’s Republic of China, Japan, and the Republic of Korea. The second relates to the as yet unmet need for the APTERR to harness the untapped potential of the private sector and civil society to expand and sustain the reserves through institutional multiparty arrangements such as forward contracts and management contracts. It may also be necessary to involve organizations such as the World Food Programme to strengthen the APTERR, since they have a track record in emergency response to food shortages and food storage and distribution. This could enlarge the sources of reserves and ensure efficient and effective delivery systems. A third issue relates to harnessing the role of regional reserves in assisting ASEAN member states that are in distress by complementing their national reserves. Other effective reserves are those that are easily accessible to risk-prone and vulnerable communities within each country, such as community-based food reserves or seed banks, all of which may need to be pilot tested.

5. ASEAN countries play a critical role in the international rice markets, both globally and within Asia and the Pacific. In 2012–2013, the region accounted for 52% of the world’s net rice exports, 17% of the net rice imports, 29% of the harvested area, 24% of global rice production, and 22% of the world’s rice consumption.⁸ Policy decisions by ASEAN member states can help calm or can shake the rice market, as witnessed during the food price crisis in 2007–2008. The crisis undermined the confidence of market stakeholders in the rice trade. This was particularly true of ASEAN governments, which then revived national rice self-sufficiency programs. The aggressive implementation of these programs has thinned the international rice trade further.⁹ The programs have also adversely affected both the urban and rural poor, particularly by making it more difficult for consumers to procure affordable rice.¹⁰

6. Building confidence in the international rice trade remains an important challenge as the 2015 launch of the ASEAN Economic Community (AEC) draws closer. The AEC is aimed at freer movement of goods and persons within ASEAN, but the ASEAN Trade in Goods Agreement allows the ASEAN member states to request waivers on their individual obligations to eliminate tariffs and nontariff measures on imports of rice and sugar. They can also ban rice exports. How ASEAN decides to address these trade-restrictive policies will have important implications for the integrity of the AEC. The rice policies of ASEAN countries will also affect their prospects for cooperating on food trade with other Asian and non-Asian players in the international rice market. To keep pace with progress in other sectors when the AEC integration kicks off in 2015, ASEAN should prepare as early as possible to bring the rice trade under a more rules-based regime.

7. Trade policies in ASEAN on foods other than rice also need to be seriously assessed, since they will affect the development of food value chains and the building of a dynamic AEC. It is important to strengthen the linkages of rice and food trade and investment policies among and between the ASEAN member states and other regional partnerships to achieve the robust availability and access of quality and nutritious food at affordable prices. The ASEAN Rice Trade Forum developed under the previous TA needs to be expanded to cover other food commodities and to broaden regional cooperation to achieve stronger, evidence-based policy analyses. This will require that procedures be developed and the AFSRB be strengthened so

⁸ E. Wailes and E. Chavez. 2013. ASEAN Rice Outlook 2012–2022. Paper presented at the Second ASEAN Rice Trade Forum. Yogyakarta. 4–5 June .

⁹ The global rice trade is considered thin because only 7% of world rice production is traded, compared with 10% of coarse grain and 16% of wheat production (footnote 8).

¹⁰ R. Clarete. 2013. Rice Self-Sufficiency and Trade: An Option for Food Security in ASEAN. Paper presented at the Second ASEAN Rice Trade Forum. Yogyakarta. 4–5 June.

that it can serve as the fulcrum for elevating the forum's evidence-based results and recommendations to ASEAN policy makers (e.g., the SOM-AMAF).

8. Abnormal market behaviors that led to the 2007–2008 crisis—hoarding at the household level, oversized import tenders, and export bans, for example—were partly triggered by the absence of accurate, timely information. To address this problem, the ASEAN Food Security Information System (AFSIS) established network centers in 2013 to strengthen its capacity as a food information service provider to the ASEAN Plus Three governments. This was a step in the right direction, but rice market players need more than just information. They also need market intelligence to keep abreast of the latest developments, emerging issues, and market directions over the short and medium terms in the rice and food value chain. This includes information on ongoing or planned policy changes, harvest forecasts, and logistical bottlenecks. The AFSIS needs to build what is now nationally based remote sensing system capacity that lacks international links into an ASEAN regional network. The development of this system is necessary for the efficient and effective implementation of a regional rice reserve system and for policy analysis.

III. THE RESEARCH AND DEVELOPMENT TECHNICAL ASSISTANCE

A. Impact and Outcome

9. The TA impact will be reduced food price volatility in the ASEAN region.¹¹ The TA outcome will be improved resilience of the food trade to natural and economic shocks.

B. Methodology and Key Activities

10. The TA will have three outputs: (i) regional rice reserve system strengthened; (ii) policies that will increase ASEAN rice and food trade and investments developed; and (iii) market intelligence capacity of AFSIS developed.

11. **Output 1: Regional rice reserve system strengthened.** Key activities will focus on giving the APTERR the capacity to (i) develop transparent and accountable protocols for tier 1 (use of forward contracts) of the APTERR protocols; (ii) provide mechanisms for the consideration of ASEAN or ASEAN Plus Three to identify the appropriate size of the regional reserve, ensure greater transparency of government-to-government transactions, and enhance the participation of the private sector, international bodies such as the World Food Programme, and civil society in managing the reserve and possibly mobilizing resources for it; (iii) pilot test community-based rice or food reserves or seed banks in at least two low-income rural communities in one ASEAN member state, with the support of internationally reputable Asian farmers' associations—such as the Asian Farmers' Association for Sustainable Rural Development and its Japan-based partner, Ainoukai;¹² and (iv) disseminate knowledge products based on the results of the pilot tests and other potential approaches to local and regional rice reserve and community-based seed banking. These activities will improve the APTERR's capacity to respond to natural and economic disasters in ASEAN member states efficiently and effectively and thereby avert surges in rice and other food prices and minimize the potential

¹¹ The Food and Agriculture Organization of the United Nations provides annual estimates on domestic food price volatility index. <http://www.fao.org/economic/ess/ess-fs/ess-fadata/en/>

¹² Together with the Asian Farmers' Association, Ainoukai will assist in the community food and farming needs assessment through a participatory approach; conduct good agriculture practices on organic farming, storage, and processing; document and facilitate community-to-community and farmer-to-farmer learning exchange; and muster lessons and experiences for case study reports and forums.

impact on the poor. The APTERR will also be able to showcase ex ante disaster preparedness measures that are community-driven and sustainable.

12. Output 2: Policies that will increase ASEAN rice and food trade and investments developed. Key activities will include building the abilities of the AFSRB to (i) develop at least two rice and food trade-related policies for the SOM-AMAF to consider that reduce food price volatility and are consistent with the AEC framework, (ii) create a food trade and investment road map for the consideration of the SOM-AMAF, (iii) expand the ASEAN Rice Trade Forum into the ASEAN Food Trade Forum and put mechanisms in place for sustaining the forum, and (iv) conduct policy analysis and provide evidence-based policy recommendations to the SOM-AMAF.¹³ These activities will help facilitate rice and food trade and investments in ASEAN member states and increase the confidence of these countries that this trade can be an expeditious way to respond to exogenous shocks and prevent food price volatility.

13. Output 3: Market intelligence capacity of AFSIS developed. Key activities include (i) training the AFSIS and its associated research institutes on food security risks by using satellite remote sensing, the Arkansas global rice and rice flow models, and inclusive food value chains analysis; and (ii) producing market intelligence reports, rice market outlooks, and weather assessment reports. The TA will work with the Japan Aerospace Exploration Agency in linking all ASEAN member states to the remote sensing database system of the Greater Mekong Subregion economies and Indonesia.¹⁴ The TA will enhance this database to provide a regional perspective and develop a sustainable, satellite-based drought monitoring and warning system for ASEAN. These activities will help provide timely and accurate projection reports that will be needed for food reserve management and by food market players.

14. Assumptions and risks. The TA has a low risk profile. Key assumptions are that (i) food security will remain a priority of the ASEAN countries; (ii) ASEAN countries will continue to provide resources to implement the APTERR, the Food Trade Forum, and the AFSIS; (iii) access will be available to accurate, up-to-date information on government and private rice reserves; (iv) ASEAN governments will be open to reducing trade restrictions; and (v) AFSIS network centers have a financial plan in place for sustaining operations. The risks are that (i) a series of natural calamities could drain the region's rice inventories, and (ii) non-ASEAN players in the rice markets could adopt food trade restrictions.

C. Cost and Financing

16. The TA is estimated to cost \$1,000,000, of which \$800,000 will be financed on a grant basis by the Japan Fund for Poverty Reduction and administered by ADB. ASEAN will provide counterpart support in the form of office accommodation, domestic transportation, remuneration and per diem of counterpart staff, and other in-kind contributions. The cost estimates and financing plan are in Appendix 2.

¹³ Examples of policies that can be developed are (i) collective action on minimizing ad hoc rice export restrictions, (ii) defined criteria for the issuance of rice and sugar waivers under the ASEAN Trade in Goods Agreement, (iii) standardized rice quality or food quality standards, and (iv) coordinated policies that expand rice and food trade with countries outside of ASEAN such as India and Pakistan.

¹⁴ The system for the Greater Mekong Subregion was supported by ADB and the Japan Aerospace Exploration Agency through the Technical Assistance on Accelerating the Implementation of the Core Agriculture Support Program (ADB, 2008. *Technical Assistance for Accelerating the Implementation of the Core Agriculture Support Program*. Manila). The system for Indonesia was supported by the Japan Aerospace Exploration Agency through its Space Application for Environment Prototype Project, "Potential Drought Monitoring over Agriculture Area in Java Island, Indonesia."

D. Implementation Arrangements

17. The TA will be implemented over 2 years (October 2014–September 2016). ADB will be the executing agency through the Environment, Natural Resources and Agriculture Division of the Southeast Asia Department.¹⁵ The ASEAN Secretariat will be the implementing agency. It has established working relations with ADB and was the implementing agency for the previous TA.

18. The TA proceeds will be disbursed in accordance with *ADB's Technical Assistance Disbursement Handbook* (2010, as amended from time to time). All procurement will be carried out in accordance with ADB's Procurement Guidelines (2013, as amended from time to time), and consultants will be recruited in line with ADB's Guidelines on the Use of Consultants (2013, as amended from time to time).

19. The TA will require 30 person-months of international consulting services from a food security economist, a community-based reserve expert, a food trade expert, an economist modeler, a food market expert, and an expert in remote sensing. It will also require 24 person-months of national consulting services from a project coordinator, a project facilitator, and an editor. In view of the diversity of the TA's activities and needs, consultants will be selected on an individual basis. The outline terms of reference for consultants is in Appendix 3.

20. The ASEAN Secretariat will hold an inception workshop within 2 months after TA effectiveness to firm up project activities and the schedule for each output. A midterm workshop will be held within 12 months of TA effectiveness and the final workshop within 22 months. The ASEAN Secretariat will submit the following reports to ADB: (i) an inception report, (ii) a midterm progress report, (iii) the proceedings of the Food Trade Forum, (iv) draft reports of experts for each output, (v) a draft final report, and (vi) final report. The TA will be monitored and evaluated based on the performance indicators outlined in Appendix 1 and through the timely submission of reports from the three ASEAN food security organizations—the APTERR, the AFSRB, and the AFSIS—to the ASEAN Secretariat following on-site consultations and training. Performance will be assessed during TA review missions.

21. The knowledge products will be disseminated by the farmers' groups involved such as the Asian Farmers' Association for Sustainable Rural Development; the ASEAN Secretariat; the three ASEAN food security organizations and their government counterparts; and ADB. The TA will disseminate knowledge products and good practices through social media, networks of participating stakeholders, policy papers, and briefing notes.

IV. THE PRESIDENT'S DECISION

22. The President, acting under the authority delegated by the Board, has approved ADB administering technical assistance not exceeding the equivalent of \$800,000 to be financed on a grant basis by the Japan Fund for Poverty Reduction for Food Security and Resilience of the Association of Southeast Asian Nations Member States to Food Price Volatility, and hereby reports this action to the Board.

¹⁵ The administration of the TA by the Southeast Asia Department will help link the TA directly with ADB's investment operations in ASEAN countries, and ensure that both policy and investment recommendations of the TA will be addressed timely by the governments and ADB.

DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
Impact Reduced food price volatility in the ASEAN region	By 2018: The domestic food price volatility index stabilized around 13.0. Baseline: 19.3 in 2009 following the 2007-2008 food price surge.	FAO Food Security Indicators database	Assumption Food security remains a priority of the ASEAN countries.
Outcome Resilience of food trade to natural and economic shocks improved	By 2016: APTERR increases the rice reserve pledge by 10%. Baseline: rice reserves pledges of 787,000 metric tons in 2013. Ratio of rice imports to total rice production of ASEAN rice-importing countries increases to 10%. Baseline: 8% in 2011 (the most recent year with complete data).	ASEAN Secretariat reports AFSIS website FAO's Rice Market Monitor	Assumption ASEAN countries continues to provide resources to implement APTERR, the Food Trade Forum, and AFSIS.
Outputs 1. Regional rice reserve system strengthened	By 2016: Mechanisms of APTERR developed for the participation of the WFP, the private sector, and civil society in regional reserve management. Community-based rice and food reserve system and seed banking system pilot tested in at least two low-income rural communities in one ASEAN country. Study on the potentials of local and regional seed banking conducted. Study on the optimal regional rice reserve conducted.	ASEAN Secretariat reports	Assumption There is access to accurate and up-to-date information on government and private rice reserves. Risk A series of natural calamities drain the region's rice inventories.
2. Policies that will increase ASEAN rice and food trade and investments developed	By 2016: ASEAN countries agree on at least two policies related to rice and food. Conduct at least one ASEAN rice or food trade forum, with mechanisms for sustaining the forum. A food trade and investment road map produced.	AFSRB documents ASEAN Secretariat reports	Assumption ASEAN governments are open to reducing trade restrictions. Risk Non-ASEAN players in the rice market adopt food trade restrictions.
3. Market intelligence capacity of AFSIS developed	By 2016: AFSIS technical staff and at least 3 technical staff from ASEAN countries (possibly technical staff of APTERR and AFSRB) trained on (i) food security risk instruments, such as use of satellite remote sensing and the Arkansas	AFSIS documents ASEAN Secretariat report	Assumption AFSIS network centers have a financial plan in place for sustaining

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
	<p>global rice and rice flow models; and (ii) the conduct of inclusive food value chains analysis.</p> <p>AFSIS produces 2 rice market outlooks, 2 weather assessment reports, and 2 food market reports.</p> <p>ASEAN countries access the satellite remote sensing system and develop coordinated early warning systems.</p>		operations.
<p>Activities with Milestones</p> <p>1. Strengthen regional rice reserve system</p> <p>1.1 Develop mechanisms for the participation of other parties in APTERR (private sector, civil society, WFP) to try out forward contracts and other institutional arrangements (October 2014–September 2015).</p> <p>1.2 Study the optimal size of the regional rice reserve and potential for regional and local seed banking (November 2014–February 2015), as well as for national and local or community-based reserves (October 2014–May 2015).</p> <p>1.3 Pilot test community-based rice, food, and seed reserves (January 2015–August 2016).</p> <p>1.4 Coordinate with AFSIS on assessment tools for logistics, disasters, and other food security risks (December 2015–February 2016).</p> <p>2. Develop policies that will increase ASEAN rice and food trade and investments</p> <p>2.1 Conduct policy analytical tools training for the AFSRB (November 2014–May 2015).</p> <p>2.2 Undertake studies with AFSRB on current and emerging issues on food trade and investments (December 2014–May 2015; January–May 2016).</p> <p>2.3 Develop procedures for elevating policy recommendations of the ASEAN Food Trade Forum for the consideration of the SOM-AMAF (November 2014–January 2015).</p> <p>2.4 Organize an ASEAN Food Trade Forum, including post-event tasks. Seek cofinancing for the conduct of the forum and participation of civil society (May 2015; May 2016).</p> <p>3. Develop the market intelligence capacity of AFSIS</p> <p>3.1 Train AFSIS and selected technical staff from APTERR, AFSRB, and associated research institutes on the use of the Arkansas global rice and rice flow models (October 2014–August 2016, intermittent).</p> <p>3.2 Produce two rice outlooks (March 2015 and March 2016) and presentations for the ASEAN Food Trade Forum.</p> <p>3.3 Conduct training on assessment of food security risks through the use of satellite remote sensing technology (April–December 2015).</p> <p>3.4 Produce two weather-related assessment maps and reports,</p>		<p>Inputs</p> <p>Japan Fund for Poverty Reduction: \$800,000</p> <p>ASEAN will provide counterpart support in the form of office accommodation, domestic transportation, remuneration and per diem of counterpart staff, and other in-kind contributions.</p>	

Activities with Milestones	Inputs
<p>as well as presentations for the ASEAN Food Trade Forum (August 2015–February 2016).</p> <p>3.5 Conduct training on food market and value chain analysis for small farmers and small agribusinesses (May–September 2015).</p> <p>3.6 Produce at least two food market reports (November 2015–March 2016) and presentations for the ASEAN Food Trade Forum.</p>	

AFSIS = ASEAN Food Security Information System, AFSRB = ASEAN Food Security Reserve Board, APTERR = ASEAN Plus Three Emergency Rice Reserve, ASEAN = Association of Southeast Asian Nations, ATIGA = ASEAN Trade in Goods Agreement, FAO = Food and Agriculture Organization of the United Nations, SOM-AMAF = Senior Officials Meeting of the ASEAN Ministers on Agriculture and Forestry, USDA = United States Department of Agriculture, WFP = World Food Programme.

Source: Asian Development Bank.

COST ESTIMATES AND FINANCING PLAN
(\$'000)

Item	Amount
Japan Fund for Poverty Reduction^a	
1. Consultants	
a. Remuneration and per diem	
i. International consultants	338.0
ii. National consultants	84.0
b. International and local travel	60.0
c. Reports and communications	15.0
2. Equipment ^b	15.0
3. Training, seminars, and conferences	154.0
4. Surveys and studies	34.0
5. Miscellaneous administration and support costs	20.0
6. Contingencies	80.0
Total	800.0

Note: The technical assistance (TA) is estimated to cost \$1,000,000, of which contributions from the Japan Fund for Poverty Reduction are presented in the table above. The Association of Southeast Asian Nations (ASEAN) will provide counterpart support in the form of office accommodation, domestic transportation, remuneration and per diem of counterpart staff, and other in-kind contributions. The value of ASEAN contributions is estimated to account for 20% of the total TA cost.

^a Administered by the Asian Development Bank.

^b Storage facilities, planting tools, farm inputs, and small farm tools for the conduct of farm experiments. The small tools and storage equipment will be turned over to the community groups.

Source: Asian Development Bank estimates.

OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

1. The technical assistance (TA) on Food Security and Resilience of the Association of Southeast Asian Nations Member States to Food Price Volatility will require 30 person-months of international consulting services and 24 person-months of national consulting services. The Asian Development Bank (ADB) will recruit the consultants on an individual basis and in accordance with ADB's Guidelines on the Use of Consultants (2013, as amended from time to time).

A. Consultant Requirements for Output 1

2. **Food security economist** (international, 4 person-months). ADB prefers that the expert have working knowledge of the Association of Southeast Asian Nations (ASEAN) Plus Three Emergency Rice Reserve (APTERR). Preference will be given to a candidate with at least 8 years of experience in undertaking research on food security in the ASEAN region or Asia. Deliverables will include APTERR working documents and assessments. The consultant will be required to

- (i) work with the APTERR secretariat in developing a mechanism for allowing the participation by or collaboration with other parties in the APTERR (e.g., the private sector and World Food Programme);
- (ii) conduct a study on the optimal size of the regional rice reserve;
- (iii) refine the procedures for the application of forward contract arrangements that involve nongovernment parties; and
- (iv) assess the possibilities of other contractual arrangements for managing the rice reserves (e.g., a management contract).

3. **Community-based food reserve expert** (international, 4 person-months). Preference will be given to an expert who has working experience with the ASEAN Integrated Food Security Framework and the APTERR protocols and procedures and in developing community-run food reserves in less-developed economies. The consultant will

- (i) evaluate the feasibility of developing the community-based food reserve systems on a test-case basis and choose the appropriate location(s) for pilot testing the system;
- (ii) identify and ensure the engagement of appropriate local civil society organizations for the preparation, establishment, development, and sustainability of community-based food reserve systems; and
- (iii) identify the appropriate mechanisms of working with and getting support from concerned government agencies, and provide policy recommendations for sustainable national and regional food reserve management.

B. Consultant Requirements for Output 2

4. **Food trade expert and forum facilitator** (international, 6 person-months). Preference will be given to an expert with working knowledge of the ASEAN Trade in Goods Agreement. Working knowledge of the ASEAN Food Security Reserve Board (AFSRB) and the ASEAN Rice Trade Forum is also preferred. She or he should have at least 8 years of professional work experience in food trade and in facilitating international conferences. The output is the smooth organization of two ASEAN Food Trade Forums. The expert will be responsible for

- (i) working with the ASEAN Secretariat and the AFSRB secretariat in designing the content of the two ASEAN Food Trade Forums;
- (ii) facilitating the organization of the forums, including the identification of resource

- (iii) persons and key participants and production of forum materials; assisting the TA project officer in the overall management of the TA with respect to output 2; and
- (iv) developing training programs for a policy tool kit for the AFSRB, conducting the requisite capacity-building programs, and assisting in the establishment of a quick policy response unit.

5. **Trade economist** (international, 4 person-months). Preference will be given to an expert with at least 8 years of professional experience in trade facilitation and value chain development and working knowledge of ASEAN or Asia. He or she will

- (i) undertake a study on the development of the rice hub in the Greater Mekong Subregion and food basket hub for the Brunei–Indonesia–Malaysia–Philippines East ASEAN Growth Area;
- (ii) develop a food investment strategy and opportunities for ASEAN, particularly for subregional efforts (e.g., the Brunei–Indonesia–Malaysia–Philippines East ASEAN Growth Area); and
- (iii) present his or her outputs at the ASEAN Food Trade Forum.

C. Consultant Requirements for Output 3

6. **Economist and modeler** (international, 3 person-months). Preference will be given to an expert with at least 10 years of experience in obtaining and processing rice market information and in developing rice market models. The output will be the results of simulations (scenario building), and analysis of the rice market situation and outlook and their potential impacts. She or he will

- (i) collaborate with the ASEAN Food Security Information System network centers and produce rice market situation assessment and outlook and a sample impact analysis; and
- (ii) concurrently propose options for building regional capacity in market modeling analysis.

7. **Food market expert** (international, 2 person-months). Preference will be given to an expert with at least 8 years of experience in conducting food value chain assessments and the production of food market analysis. He or she will

- (i) provide training on value chain and food market assessments and reporting, and
- (ii) assist the ASEAN Food Security Information System in drafting food value chain and market assessment reports for the second ASEAN Food Trade Forum.

8. **Remote sensing specialist** (international, 4 person-months). Preference will be given to an expert with a master's degree or higher in remote sensing technology or a relevant field. She or he should have more than 5 years of working experience in the field of earth observation satellite data analysis. The expert should also have experience in applying drought indexes obtained from satellite data, including from the Global Satellite Mapping of Precipitation project, in joint research or projects for drought monitoring with the Japan Aerospace Exploration Agency. He or she will

- (i) develop a sustainable, satellite-based drought monitoring and warning system for ASEAN,
- (ii) identify drought-vulnerable areas in ASEAN with the developed system for sustainable satellite-based drought monitoring and warning, and
- (iii) conduct capacity development for applying the developed system for drought management.

D. Consultant Requirements for all Outputs

9. **Unallocated** (international, 3 person-months). These services will be used to conduct special studies that the TA implementing agency or the project team deem necessary during the implementation of the TA.

10. **Project facilitator** (national, 12 person-months). The consultant shall be from the Philippines and will work closely with the ADB project officer. Preference will be given to an expert who has at least 8 years of relevant experience and possesses both the management and analytical skills required to administer regional technical assistance. The output will be the smooth implementation of the TA and satisfactory generation of various project documents. She or he will be required to

- (i) ensure the accomplishment of TA activities and outputs by monitoring the progress of consulting work and activities undertaken by ADB and the TA implementing agency;
- (ii) undertake analytical research on food security in the ASEAN region, including research on the global situation and outlook and how they affect the ASEAN region;
- (iii) provide research assistance support to the international consultants of the TA; and
- (iv) review the TA outputs and help package them as ADB knowledge products.

11. **Project coordinator** (national, 10 person-months). The consultant shall be from Indonesia and will work closely with the ASEAN Secretariat. Preference will be given to an expert with at least 5 years of experience in project implementation and events coordination. The output will be the smooth implementation of the TA. He or she will be required to

- (i) coordinate the TA activities undertaken by the implementing agency;
- (ii) ensure that the TA implementing agency complies with ADB policy and requirements, particularly regarding the disbursement of the TA funds; and
- (iii) facilitate the submission to ADB of regular progress reports by the TA implementing agency.

12. **Editor** (national, 2 person-months). The consultant shall be from the Philippines and will work closely with the ADB project officer. Preference will be given to an expert with a degree in journalism or communications and at least 8 years of experience in editorial and publishing work. She or he needs to be familiar with ADB's *Handbook of Style and Usage*. The outputs will consist of edited TA-related documents. He or she will

- (i) edit the reports and other documents produced under the TA;
- (ii) work on the entire process of publishing the TA outputs; and
- (iii) develop communications pieces (e.g., briefs and news releases) to disseminate the TA project's reports and findings.