



**Asia-Pacific  
Economic Cooperation**

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**2012/SOM2/PPFS/005**

Agenda Item: 7

## **Summary Report - APEC Food Emergency Response Mechanism Working Meeting in April 2012**

Purpose: Information  
Submitted by: Chinese Taipei



**Policy Partnership on Food Security  
Meeting  
Kazan, Russia  
28-29 May 2012**

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**Summary Report**  
**APEC Food Emergency Response Mechanism Working Meeting**  
**Taipei, Chinese Taipei**  
**April 10-11, 2012**

**Grand Formosa Regent, Taipei, Chinese Taipei**

The APEC Food Emergency Response Mechanism Working Meeting was held on 10-11 April 2012 in Taipei, Chinese Taipei. The meeting was attended by 60 participants from the APEC Secretariat and 19 member economies. After enthusiastic deliberations, the participants have reached the following key findings and recommendations on the proposed AFERM:

Key Findings

- The AFERM would be a regional network of virtual food stocks, composed of earmarked multiple crops. Based on the cost-benefit analysis and socio-economic impact assessment conducted by the AFERM Expert Team, it would be cost-effective above certain levels to have the AFERM applied to rice and maize in-kind, and wheat in-cash.
- Economies would have the option to voluntarily contribute any of the earmarked rice, and/or maize, and/or wheat donations either in kind and/or in cash.
- The AFERM is designed to be a cost-effective and cooperative mechanism under the principles of voluntary contribution, collective action, risk-sharing, self-management, and non-trade-distorting. It is to be used for short term emergency food relief in times of natural disasters. The proposed AFERM is to be used as a targeted and fully-grant form of food relief from earmarked reserves (in-kind and/or in-cash) to be pledged by member economies. Thus, it would not distort the international food market.
- The AFERM is designed to serve as a second line of defense complementing the existing humanitarian food aid programs. The AFERM should be consistent with existing humanitarian food relief programs (multilateral, bilateral, and regional mechanisms, which cut across governments and NGOs).
- The AFERM would require commitment on the pledges of the voluntary contributions with some flexibility, taking into consideration changing economic and other circumstances.

Recommendations

Pursuant to the outcome of the feasibility study conducted by the AFERM Expert Team and the key findings deliberated at the working meeting, delegates agree to the following subsequent actions to be taken:

- Members to consider endorsement of AFERM as a pathfinder initiative.
- Chinese Taipei, with assistance of the AFERM Expert Team, is to further refine the distributed report, *A Feasibility Study of APEC Food Emergency Response Mechanism (AFERM)*, by incorporating the participants' comments and suggestions as described in the Meeting Report.
- By using the revised version of the aforesaid report as the background paper, Chinese Taipei is to report the proposed AFERM to the upcoming meetings to be held in Kazan, Russia, including Policy Partnership on Food Security, Agricultural Technical Cooperation Working Group Annual Meeting, Friends of the Chair Meeting and subsequent Ministerial Meeting on Food Security for their consideration to adopt as a pathfinder initiative.
- The meeting also suggested members to further consider the issue of the form and details of the commitments to be pledged by members so as to facilitate the participation in the AFERM.

The meeting is summarized as follows:

1. The APEC Food Emergency Response Mechanism Working Meeting was held on 10-11 April 2012 in Taipei, Chinese Taipei. The meeting was attended by 60 participants from the APEC Secretariat and 19 member economies including: Australia; Brunei Darussalam; Canada; Chile; China; Indonesia; Japan; Republic of Korea; Malaysia; Mexico; New Zealand, Papua New Guinea; Peru; Republic of the Philippines; Singapore; Chinese Taipei; Thailand; the United States; and Viet Nam.

#### **Opening Session:**

2. The Minister of the Council of Agriculture, Chinese Taipei, Dr. Bao-Ji Chen, welcomed delegates and stressed the importance of food security in APEC region in light of increased frequency of natural disasters that often tied with global warming and extreme weather conditions. He gave a historical account of how the APEC Food Emergency Response Mechanism (AFERM), was proposed and coordinated by Chinese Taipei since April 2010, of how it has evolved through discussions in subsequent APEC meetings, and he felt confident that strong consensus would be built on findings of the feasibility study and other recommendations to be made for AFERM at this meeting.
3. APEC ATCWG lead shepherd Dr. Feng-Ying Nie congratulated Chinese Taipei and the Expert Team on their efforts of conducting the feasibility study and underlined the importance of finding effective means to address disaster-incurred food insecurity. This meeting was just a start and more cooperation will be needed in many respects in the future.
4. Mr. Thanawat Sirikul, Director of the APEC Secretariat, identified food security as a high APEC agenda item and introduced PSU colleagues present at the meeting and their work on sketching the landscape of food security and related methods. He also acknowledged Chinese Taipei's efforts made since last meeting in August 2011 to produce a proposal for discussions at this meeting.
5. Dr. Su-San Chang, Chair of the Organizing Committee of the Working Meeting cum Director General, Department of International Affairs, Council of Agriculture, Chinese Taipei highlighted the AFERM features of voluntary contribution, collective action, risk-sharing and self-management. The APEC food security forum in Taipei in August 2011 approved its overall concept but requested further study on socio-economic impacts and cost-benefits of AFERM. Chinese Taipei has organized an expert team to work on this study, and the current meeting aims to have thorough and in-depth discussions on its findings. She also gave an overall status of the program during the meeting.

#### **Presentation: Proposed Framework for the APEC Food Emergency Response Mechanism**

**Chairperson:** *Mr. Thabani MAPHOSA, Global Director, FPMG, World Vision*

**Speaker:** *Dr. Su-San CHANG, Director General, Department of International Affairs, Council of Agriculture, Chinese Taipei*

6. The presentation by Dr. Su-San Chang is a refinement of AFERM proposal based on suggestions from the 2011 meeting and findings of the feasibility study. The rationale for establishing AFERM is to address a state where a member economy suffers from natural calamities and is unable to meet the emergency food needs on its own in the face of rising natural disasters. AFERM enhances regional capacity to prepare for and respond to natural disasters as existing regional food reserve schemes do not cover all APEC member economies and the commonly consumed staple crops. AFERM's objectives are to build a cost-effective and risk-sharing regional multiple food crops network; to provide a supportive buffer; and to complement existing international food aid/reserve programs.
7. Key features of AFERM are: 1) a virtual regional multiple food crops network for the humanitarian food relief; 2) a cost-effective and non-trade distorting cooperative framework under the principles of voluntary contribution, risk-sharing and self-management; 3) a mechanism targeting only short-term, emergency, and fully granted form of food relief from earmarked reserves to be

pledged by member economies; 4) a facility where both in-kind and in-cash donations can be earmarked; 5) a mechanism serving as a second defense line; and 6) a process where active cooperation with humanitarian NGOs is accommodated.

8. The proposed AFERM has a governance structure that comprises a steering committee and a secretariat, an information system, a network of earmarked emergency food stocks, liaison agencies of AFERM members, and network of humanitarian NGOs.
9. In terms of the size and composition of reserves, AFERM aims to meet consumption needs for 1-3 months for the following crops: Rice: 0.8-2.4 million MT (earmarked stock); Maize: 8,000-20,000 MT (earmarked stock); Wheat: 0.7-2.0 million MT (earmarked in-cash donation).
10. The mechanism can be triggered by requests from participating member economies or the steering committee's offers; it would be cost effective based on the analysis of AFERM's expert team, when each food relief reaches 1,000 MT for rice, 100 MT for wheat, or 50 MT for maize.
11. The expected achievements of AFERM are to safeguard emergency food security in the APEC region by offering a cost-effective, non-trade-distorting, and risk-sharing supportive buffer to complement with the existing food aid programs.
12. In conclusion, AFERM is a cost-effective, risk-sharing, non-trade distorting, and earmarked food aid network in APEC. With the establishment of AFERM, emergency food aid could be provided to participating member economies experiencing natural catastrophes.

#### Q&A

13. Japan offered to circulate the paper on APIP (Asia-Pacific Information Platform on Food Security) and was happy to cooperate with AFERM information system. AFERM comes in useful when existing food-aid programs are not enough, but its steering committee has to monitor the condition. Hence there is a need for collecting information to ensure synergy and to avoid duplication of efforts and resources.
14. Regarding decision-making process, AFERM can be triggered by request from recipient economies or by the steering committee. Nonetheless, final decisions must be made with consent of recipient economies.
15. AFERM as an emergency response mechanism focuses on staple crops, not animal protein-based food, which is also important but less essential for emergency aid. Such donations are also welcomed, but quality and sanitary and phytosanitary (SPS) requirement issue of animal protein will be difficult and complicated to handle.

#### **Presentation: The Feasibility Study on APEC Food Emergency Response Mechanism – Socio-economic Impacts and Cost-benefits**

**Chairperson:** *Dr. Andrew Powell, CEO, Asia BioBusiness*

**Speaker:** *Dr. Ching-Cheng CHANG, Research Fellow, Institute of Economics, Academia Sinica, Chinese Taipei*

16. The presentation by Dr. Ching-Cheng Chang focused on technical aspects of report of the feasibility study, featuring socio-economic impact assessment and cost-benefit analysis.
17. Emerging disaster trends show that floods, droughts and storms are the top three among the 12 disaster types and have been growing rapidly since 1980's, with number of people affected in Asia increasing much more dramatically than those in other continents. In terms of frequency, total number of events was higher in China, the US, the Philippines, and Indonesia, but declined in recent years. In terms of intensity by % of population affected, the numbers rose rapidly to more than 2% in Thailand, the Philippines, Chile, New Zealand, and Chinese Taipei, while shares of economic loss in annual GDP rose rapidly in New Zealand, Chile and Thailand, ranging from below 0.5% to 3-6%.
18. In spite of rising economic losses and populations affected by natural disasters in APEC, staple food aid has declined over the past decade. Within APEC, supply-demand and per capita

consumption differ significantly, so intra-regional trades are important to ensure food security in APEC and a global trade model is employed to conduct economic impact assessment.

19. Impact assessment results of 36 simulations using GTAP (global trade analysis project) model show that:
  - The higher the degree of assumed reductions in the production of staples due to natural disasters, the greater the economy-wide output losses and community-wide social welfare losses.
  - Reduction in production of staples due to natural disasters in the selected APEC economies is likely to exert upward pressure on world market prices in many instances.
  - Adverse production shocks to staples from natural disasters can have spillover effects to economies inside and outside the APEC region through global market signals and international trade.
20. Cost-benefit analysis is conducted by identifying potential recipients based on elements of risk, determining the annual reserve size, and finally the minimum trigger volumes. Risk criteria used for this analysis include number of disaster per year, percentage of population affected per year, percentage of economic losses in GDP per year, and per capita income per year, with the target of maintaining the average per capita consumption levels of the recent past.
21. Annual food aid needs are calculated under three options of 1-, 2-, 3-month reserves. The 3-month options for rice, wheat and maize are 2.7 million MT, 2.1 million MT, and 32,000 MT respectively; 1.1%, 0.8%, 0.01% of annual APEC production respectively; 1.4%, 1.2%, 0.08% of annual APEC consumption respectively. Assuming each economy has 18% food security reserve, the 3-month options represent 8% for rice, 7% for wheat, and 0.5% for maize. This is similar to an insurance pool for high risk emergency that helps reduce public expenditures on expanding food security reserves for natural disasters. The study calculates net benefits and benefit-cost ratios, which are then used for conducting sensitivity analyses to determine trigger level, i.e. the minimum level to maintain positive net benefits from operating the AFERM.
22. AFEERM's recommended reserve sizes of staple crops are as follows:
  - Rice: reserve size can be chosen from the three options, ranging from 0.8 million MT to 2.4 million MT, with a trigger level of 1,000 MT, subject to actual needs.
  - Maize: reserve size ranges from 8,000 MT to 20,000 MT, with a trigger level of 50 MT, subject to actual needs.
  - Wheat: most benefit-cost ratios are less than 1, so cash aid will be the option instead of in-kind food relief. Reserve size in-cash ranges from 0.7 million MT to 2.0 million MT, at a trigger level of 100 MT, subject to actual needs.
23. In conclusion, AFERM would offer a cost-effective and risk-sharing buffer and safeguard emergency food security through regional collective actions. Based on GTAP simulations and cost-benefit analysis in this study, the benefit-cost ratio of AFERM is about 1.3 for rice, 0.5 for wheat, and 7.9-8.3 for maize if the food relief is above the aforesaid trigger levels.

## **Q&A**

24. Statistics for Brunei needs correction, but it wouldn't affect the overall finding of the study.
25. More than 90% of maize is used for animal feed in this region, but economies like Mexico have it as a staple, which is why maize is included.
26. The calculation in this study is based on food consumption per capita, which is more realistic than when using nutrition requirement.
27. Understanding the reasons for the decreases in food aids require further study, as NGOs have also become more active and previous recipient economies like China may have become donors.
28. Findings of this study are consistent across simulations, though impacts of large economies like China on the calculations should be further analyzed. Impacts of natural disasters are quite minimal for the US on GDP basis, so the study may need to factor in the size of impacts of natural

disasters. For a big economy like China, natural disaster in one area may have no effect on overall production. Moreover, developed or bigger economies who are net exporters may have internal buffers. Also, more current price data instead of the 2007 baseline data should be considered, and more sensitivity study may be needed.

29. Natural disasters as a trigger of this mechanism should be clearly defined and categorized. The trigger levels presented in the study are minimal requirements for AFERM to be cost-effective. The steering committee still needs to check cost-effectiveness of in-kind relief. If it's too costly to ship low volumes, in-cash may be used instead.
30. The feature of AFERM as the second line of defense is a good argument since there may not be such needs when existing programs like APTERR (ASEAN Plus Three Emergency Rice Reserve) or the market mechanism are functioning.
31. Both upstream and downstream impacts are included in the study, so it's already quite comprehensive. That said the analysis is only part of the AFERM equation, whose special focus should be given to most vulnerable economies based on most recent data and the avoidance of spillover effects and interference with market mechanism.
32. In the study, only those APEC members identified as most vulnerable, i.e. high and medium risk economies that have received aid previously, are included in the calculation for reserve sizes and the same vulnerable group is used for cost-benefit analysis. The results may be still similar with more current data, but it needs to be confirmed with further study.

#### **Roundtable Discussion I:**

##### **The Framework for the APEC Food Emergency Response Mechanism**

##### **Chairpersons:**

**Dr. Su-San Chang**, *Director General, Department of International Affairs, Council of Agriculture, Chinese Taipei*

**Dr. Ronnie S. Natawidjaja**, *Director, Center for Agri-food Policy and Agri-business Studies, Padjadjaran University, Indonesia*

33. One consideration should be how AFERM adds value on top of existing programs. APTERR signed by ASEAN Plus 3 (Japan, China, and Korea) emphasizes quick decision-making and physical delivery. Based on the analysis, what is needed (800,000 MT) is more than what is available in APTERR (78,000 MT), so we need a second line of defense. With APTERR in place, the decision-making and response of AFERM will be even quicker.
34. AFERM is similar to APTERR's Tier 3 program (i.e. a program to release stockpiled rice reserves upon request or automatic triggering system, as the first emergency food aid after a disaster). APTERR can consider if its members are willing to support non-APTERR APEC members who have emergency needs. Likewise, members of the Food Aid Convention (FAC) can also support AFERM by simply allocating part of their FAC package for this mechanism.
35. Chinese Taipei has a reserve stock of 3 months for food security reasons, and it's willing to earmark certain amount for humanitarian aid. For any of the in-kind or in-cash earmark, budget has to be made available, but there won't be any actual costs if no such needs arise.
36. Humanitarian NGOs are usually the first mover in disaster situation, and usually these NGOs will consult the recipient economy to confirm the need. So the recipient economy can make the appeal, or the NGOs can make the request with consultation with recipient economy. The steering committee can also make the appeal. Final decisions are still based on actual need and the request from the recipient economy.
37. The AFERM steering committee would avoid duplicating efforts. Economies who currently are the donors for food-aid programs may not need to increase the pledged amount because of AFERM, but allocate parts of the existing pledge for AFERM. The hope is that all APEC economies will pledge certain amounts to AFERM and collectively create enough virtual reserve for such needs.

38. The recipient economy may have concerns that their food market will be distorted by such aid relief. AFERM is only for short-term, emergency purpose and the amounts to be pledged are relatively small, accounting for less than 1% of regional production, so it would not disrupt normal trade and food production.
39. Following the practices of APEC, AFERM is consensus-based and non-binding in its nature, with voluntary contributions based on capacity of member economies. If endorsed by all members, it will become a working body under APEC. Of course its implementation will require political commitment and internal legislative process of member economies to set aside a budget for that commitment.
40. AFERM is complementary to existing food-aid programs such as bilateral aids, WFP (World Food Programme) and APTERR, and it will be used only when there is still a need after such existing programs could not cope with the demand.
41. The underlying concept of AFERM is to deal with severe natural disasters. Many areas are already covered by existing humanitarian food-aid programs, but they are often for medium- or long-term projects. The ultimate objective of AFERM is to prepare for and respond to natural disasters and alleviate a short-term food insecurity issue.
42. The critical gap is associated with aid itself, and there is a need for harmonizing existing food-aid programs – APTERR, UN, bilateral, etc. – to see what has already been covered, and then see what AFERM can cover. One positive feature of AFERM is that it is triggered some time after the disaster, which should allow for sufficient time for sound judgment on the actual needs. Perhaps we also need to review humanitarian appeals in the past to see to what extent they have been met, and hence the gap.
43. Another aspect is the need for data from member economies, including list of voluntary NGOs and domestic agencies who may help deliver food aid. Japan's offer to support with its APIP is welcomed and appreciated.
44. There is a need for investigation into why food aid has dropped in recent years and the delivery issue that is not covered in the study. Other factors like financial crises and oil price hikes may have implications for results of the study, and real case examples from member economies will be appreciated to help refine the study.
45. Experience with APTERR has been difficult as the whole process took almost 10 years. It was voluntary but later on became binding, when China, Japan and Korea came in and pushed for fulfillment of the political commitment.
46. Existing mechanisms like WFP, AFSIS (ASEAN Food Security Information System), and APIP have very sophisticated data. AFERM needs more specific data related to humanitarian food aid, but the work load is much smaller because its reserves are earmarked, self-managed and virtual, not centralized physical stocks. Political commitment is certainly needed but the emphasis is still on its nature of voluntary contribution. If one member economy makes the commitment, it has to go through internal legal process to allocate needed budget, which means it's binding domestically.
47. AFERM has the potential to bring in the private sector. For instance, in the case of World Vision's work with Horn of Africa crisis, Chinese Taipei and Brazil have pledged, but aid needs to be shipped to that economy. The World Vision had to be creative by asking for help from the private sector, which is very different from working with multinationals when all is included in the package and NGOs are not required to push their limits/boundaries.
48. Will nutritional issues arise after 1 or 2 months when AFERM comes in? In APEC economies, we may need to look at it from resilience perspective to see if people have the capacity to go back to what life was before.
49. Last year Chinese Taipei Buddhist Tzu Chi Foundation bought milk powder from China for need in NE Asia and the decision was based on needs on the ground. In the 2<sup>nd</sup> half of 2011, the Foundation had a hard time buying 30,000 tons of rice by shopping around neighboring economies. The existence of AFERM would make the job easier.

## Roundtable Discussion II:

### **The Socio-economic Impacts and Cost-benefits on APEC Food Emergency Response Mechanism**

#### **Chairpersons:**

*Dr. Don Gunasekera, Senior Economist, Centre for Complex Systems Science, CSIRO, Australia*

*Mr. Amos Tin, Deputy Director, Canadian Trade Office in Taipei, Canada*

50. The AFERM trigger must be a catastrophe as it's not meant to be used frequently, and severity of the disaster should be more clearly classified. Such database systems, with types, intensities and levels, are available, but not all disasters can be classified. AFERM is voluntary-based and accessible and available to regional needs, so the design is to leave the flexibility of either the recipient economy or the steering committee to make the appeal.
51. Based on difficult experienced with APTERR, political commitment is important and AFERM may want to have a clear stipulation of such commitment in writing. Also, there should be clearer definition of AFERM as an emergency response rather for other purposes like hunger and poverty alleviation.
52. The Expert Team can consider conducting comparative studies on this AFERM approach versus others, including no actions or those for capacity building.
53. AFERM is a short-term, highly-targeted and focused mechanism, whereas capacity building and broader food security and poverty alleviation issues are more for long term. AFERM has positive impacts in the short term to bring victims back to the longer term development path. Even developed communities can be vulnerable in the face of abrupt natural disasters and need longer time than expected to recover. AFERM can help the vulnerable to expedite the process of going back on track. AFERM is compatible with, and not a substitute for, other existing programs, including those for long-term development.
54. Regarding next steps after the meeting, hopefully concrete recommendations for AFERM will emerge as a consensus from the meeting, including suggestions on refining the framework. The refined report will be submitted to a series of food security related meetings including ATCWG annual meeting, PPFS, Friends of the Chair and subsequent Ministerial Meeting in Kazan, Russia, to get the green light for AFERM as a pathfinder approach, to be followed by seeking endorsement from member economies and asking for commitment to earmarked stocks, and seeking APTERR member economies to join the AFERM and to consider the possibility of incorporating Tier-3 program of APTERR into AFERM.
55. On the definitions of short/long-term humanitarian aid in general, it depends on if the economy has systems in place to identify the level of needs and the scale of operations. Short term period is usually 90 days to 6 months.
56. AFERM features virtual stocks, but what will happen when it's not in harvest seasons or physical stocks are not available in a disaster? Many economies do have food stocks, e.g. Chinese Taipei has public food stocks and is willing to earmark part of it for emergency food need. Some economies also provide in-cash food aid, which is also welcome and can be more effective when used to buy food in neighboring markets or cover transport costs.
57. On the issue of reserve replenishment under AFERM, annual commitment and replenishment would be made by member economies, and the specific amounts will be decided by the economy itself.
58. In terms of justifying if AFERM can benefit the most vulnerable, the feasibility study identifies people in need based on risk assessment; uses food aid recipient database to calculate potential benefits; and focuses on the short-term need. The benefit is calculated in comparison with no-action scenario and doesn't consider long-term benefits.
59. The proposed AFERM targets could be calculated in different ways, and the current study looks at empirical, historical data on economies most affected and their respective levels of vulnerability in a robust framework. Currently, we've been trying to use existing emergency mechanisms to respond to emerging disasters. How can we fully utilize existing data in a robust research



framework to find implications? How can we use existing response mechanisms in innovative ways to effectively meet the emerging challenges in the future? For AFERM, the issue concerned here is risk management and not crisis management, and data collection requirements and analytical frameworks need to be further improved and refined for such purposes.

60. On the question of the cost-effectiveness of the mechanism when the total pledge is way below the target, sensitivity analysis can be conducted to verify cost-benefit, and the recommended amounts in this study are the minimal for AFERM to be cost-effective. Such numbers are offered as reference; they provide us insights and should be seen as broad parameters.
61. One question needs to be asked is: why one APEC economy should support another economy? What's in it for them to do that? It's important that member economies think about it. A number of economies like the US, Japan and Canada are already committed to the Food Aid Convention. The tied food aid concept (i.e., food aid which is tied to the procurement of goods and/or services from the donor economy and/or a restricted number of economies) can be a subset in that convention, meaning that when these governments make such pledges, certain part of the whole package can be designated for AFERM.
62. Member economies are encouraged to send further comments to Chinese Taipei before the ATCWG meeting on 28 May during the Food Security Week in Kazan, Russia.

### **Roundtable Discussion III: Other Issues and Business**

#### **Chairpersons:**

*Dr. Mignonne Man-jung Chan, Executive Director, Chinese Taipei APEC Study Center*

*Mr. Angelito T. Banayo, Administrator, National Food Authority, The Philippines*

63. This session aimed to discuss AFERM concept and concerns, including trade distortion, and to address outstanding issues. Delegates reviewed the draft of Key Findings and Recommendations of AFERM Working Meeting, prepared by the organizers with support from volunteer experts. Specific suggestions on wording were exchanged to revise the text.

### **Wrap-up and Recommendations**

#### **Chairpersons:**

*Prof. Feng-ying Nie, Division Director, Chinese Academy of Agricultural Sciences, PRC*

*Dr. Su-San Chang, Director General, Department of International Affairs, Council of Agriculture, Chinese Taipei*

64. This session focused on further discussions on the Recommendations from this meeting, thus finalizing the full text of Key Findings and Recommendations of AFERM Working Meeting.
65. The following is the final version of the Key Findings and Recommendations related to the proposed AFERM:

#### Key Findings

- The AFERM would be a regional network of virtual food stocks, composed of earmarked multiple crops. Based on the cost-benefit analysis and socio-economic impact assessment conducted by the AFERM Expert Team, it would be cost-effective above certain levels to have the AFERM applied to rice and maize in-kind, and wheat in-cash.
- Economies would have the option to voluntarily contribute any of the earmarked rice, and/or maize, and/or wheat donations either in kind and/or in cash.
- The AFERM is designed to be a cost-effective and cooperative mechanism under the principles of voluntary contribution, collective action, risk-sharing, self-management, and non-trade-distorting. It is to be used for short term emergency food relief in times of natural disasters. The proposed AFERM is to be used as a targeted and fully-grant form of food relief from earmarked reserves (in-kind and/or in-cash) to be pledged by member economies. Thus, it would not distort the international food market.
- The AFERM is designed to serve as a second line of defense complementing the existing humanitarian food aid programs. The AFERM should be consistent with existing humanitarian food relief programs (multilateral, bilateral, and regional mechanisms, which

cut across governments and NGOs).

- The AFERM would require commitment on the pledges of the voluntary contributions with some flexibility, taking into consideration changing economic and other circumstances.

#### Recommendations

Pursuant to the outcome of the feasibility study conducted by the AFERM Expert Team and the key findings deliberated at the working meeting, delegates agree to the following subsequent actions to be taken:

- Members to consider endorsement of AFERM as a pathfinder initiative.
  - Chinese Taipei, with assistance of the AFERM Expert Team, is to further refine the distributed report, *A Feasibility Study of APEC Food Emergency Response Mechanism (AFERM)*, by incorporating the participants' comments and suggestions as described in the Meeting Report.
  - By using the revised version of the aforesaid report as the background paper, Chinese Taipei is to report the proposed AFERM to the upcoming meetings to be held in Kazan, Russia, including Policy Partnership on Food Security, Agricultural Technical Cooperation Working Group Annual Meeting, Friends of the Chair Meeting and subsequent Ministerial Meeting on Food Security for their consideration to adopt as a pathfinder initiative.
  - The meeting also suggested members to further consider the issue of the form and details of the commitments to be pledged by members so as to facilitate the participation in the AFERM.
66. Chinese Taipei will submit the refined report of "*A Feasibility Study of APEC Food Emergency Response Mechanism (AFERM)*" and recommendations of the AFERM working meeting to the subsequent APEC meetings on food security through ATCWG in May this year. The goal is to seek endorsement at the Ministerial meeting as a pathfinder initiative. Then, Chinese Taipei will work on further specific issues and approach like-minded members for participation in AFERM.

#### **The Closing Session**

##### **Chairperson:**

**Dr. Su-San Chang**, *Director General, Department of International Affairs, Council of Agriculture, Chinese Taipei*

67. The Chair thanked delegates for their active participation and contributions to AFERM discussions. All points raised at the meeting will be taken into consideration for refinement of the proposal, and it is hoped that like-minded members will work together under AFEERM to meet emergency needs. The Chair also acknowledged the Chinese Taipei Institute of Economic Research for their administrative support.
68. Brunei Darussalam conveyed gratitude on behalf of delegates to Chinese Taipei, the meeting secretariat and AFERM Expert Team for hosting the meeting and looked forward to the successful establishment of AFERM.
71. The meeting officially adjourned at 12:00 pm, 11 April, 2012.

Annex 1. Abstract of "A Feasibility Study of APEC Food Emergency Response Mechanism "

Annex 2. APEC Food Emergency Response Mechanism (AFERM) Framework Proposed by Chinese Taipei

## **A Feasibility Study of APEC Food Emergency Response Mechanism (AFERM) Abstract**

Natural disasters increasingly harm the most vulnerable people and place a substantial financial burden on the Asia-Pacific member economies. Many of these disasters may well increase in both frequency and intensity under projected climate change and their impacts enhanced because of anthropogenic activities. Given the APEC's emphasis on food security in recent years, as stipulated in the 2010 APEC Niigata Declaration and being prioritized by Russia in the 2012 APEC agenda, there still remains no regional-wide mechanism to address the impacts of natural disasters on vulnerable peoples in the APEC region. In response, Chinese Taipei has proposed the AFERM, which is designed to be a self-managed, risk-sharing, and regional network of virtual food stocks, composed of earmarked multiple crops, for short-term humanitarian food in times of natural disasters.

The AFERM is designed to be composed of APEC member economies on voluntary basis. All APEC member economies are welcome to participate in the AFERM. The AFERM contains five components. First, the AFERM Steering Committee (SC) would be the main management body of the AFERM, in charge of decision-making, coordination, and virtual stock management. The SC reaches decisions based on consensus and decides the amount, type, and distribution of food reliefs. Second, the supportive AFERM Secretariat should be established to provide administrative support to the SC and coordinate the release of food stocks, while maintaining the AFERM Information System (IS).

Third, the AFERM Information System should be established for the assessment of emergency. Its purpose is to provide the SC and AFERM members with timely, accurate, and comprehensive information for the early preparation and warning of natural disasters, as well as relevant information for the SC to make decisions. The IS would draw on the information from existing international/regional entities, like FAO and APIP, and keep close cooperation with AFERM members. Fourth, the decentralized Network of Virtual Emergency Food Stocks would be established, which is composed of earmarked and self-managed multiple food stocks contributed by participating economies on a voluntary basis. Finally, the Network of Humanitarian Groups and relevant government agencies would be arranged to expedite the delivery of emergency food relief.

The AFERM's mechanism could be triggered by three options: 1. By AFERM member's appeal; 2. By the SC's offer; and 3. By NGOs' appeal. First, AFERM members affected by natural disasters could report to the Secretariat and request humanitarian food relief. Second, the SC could make decisions to provide humanitarian food reliefs to any APEC member struck by natural calamities. Third, NGOs could also make a request via the Secretariat or AFERM members for food relief with consultation with the recipient economy. Regarding the cost of the AFERM, Chinese Taipei would like to support the initial and recurring expenditures of the AFERM Secretariat.

The feasibility study of the AFERM consists of two parts: an APEC-wise impact assessment and a cost-benefits analysis. The impact assessment starts with a historical review of natural disaster events and their social economic consequences addressing the potential risk facing each APEC member economy. Considering the fact that there are many dominating players in the global grain production, consumption, and trade in the APEC region, a widely cited global computable general equilibrium model (GTAP) is applied to simulate the annual direct and indirect tangible impacts from natural-disaster-induced food production losses in specific vulnerable economies under a given set of assumptions. These impacts are then used to estimate the potential benefits from the food aid relief of AFERM in the recipient economies. The impact assessment results suggest that the AFERM would significantly improve the immediate food security of vulnerable people affected by natural disasters facilitating them in the resilience effort. The positive value of the AFERM would also go beyond borders and spillover to the Asia-Pacific region as a whole.

Next, the cost-benefit analysis of AFERM is carried out by a three-step simulation procedure. First, the potential recipients of AFERM for rice, wheat and maize are identified based on the historical risk levels from EM-DAT and food aid relief data from WFP. The second step determines the food aid needs targeted at the existing per capita consumption levels of each economy from 1-month to 3-month period. The final step estimates the annual costs and benefits to examine the feasibility of AFERM. The trigger volumes are also estimated as minimal requirements for AFERM to be cost-effective by undertaking a set of sensitivity analysis. Since the anticipated benefits of the AFERM would surpass its costs, it is indisputable that the AFERM would be a cost-effective mechanism.

Based on our benefit-cost analysis, following recommendations are made:

1. **For rice:** The benefit cost ratios of three options are all greater than 1 and thus we recommend the reserve size for rice to range from **0.8 million MT to 2.4 million MT** with a trigger level between **1,000-3,000 MT**, depending on the actual situation and the needs from each event.
2. **For wheat:** Because most of the benefit-coast ratios are mostly negative, we recommend that cash aid will be the best solution instead of in-kind food relief. The food aid needs for wheat range from **0.7 million MT to 2.0 million MT** with a trigger level of **100 MT**, depending on the actual situation and the needs from each event.
3. **For maize:** The benefit cost ratios of both options are all greater than 1 and thus we recommend the reserve size for maize to range from **8,000 MT to 20,000 MT** with a **50 MT** trigger level, based on the actual situation and needs from each event.

To summarize, the AFERM is designed to be a cost-effective and risk-sharing supportive buffer in providing emergency food relief from earmarked reserves stemmed from voluntary donations of its members. The AFERM would cooperate with the experienced humanitarian NGOs to deliver the emergency food aids and complement the existing regional food aid/reserve programs through collective actions. Data refinement, monitoring and evaluation procedures should also be dedicated to enhance its cost-effectiveness. Given the encouraging economic results of the AFERM in this report and numerous strengths of the AFERM, Chinese Taipei will continue to move forward the AFERM proposal as an APEC pathfinder initiative in 2012 in order to safeguard the food security in the APEC region and also respond to Russia's appeal of strengthening food security in 2012.

**Proposed Framework for the APEC Food Emergency Response Mechanism (AFERM)  
by Chinese Taipei**

April, 2012

## 1. The Rationale for the APEC Food Emergency Response Mechanism

Natural disasters and extreme weathers caused by global warming have increased their frequency and intensity in recent years. Their impacts have wreaked havoc in various parts of the world that led to food insecurity. The situation was further compounded by the soaring international food prices in recent years. To address these emergency food security issues, the World Food Programme (WFP)<sup>1</sup> recently reveals that the volume of global food aid deliveries has decreased in the past years<sup>2</sup>, despite a growing need for emergency food aid. Furthermore, the WFP has also stated that the food supply for several of its projects could face interruptions because of low funding and increased food prices, resulting in food aid shortages<sup>3</sup>.

On the other hand, the Asia-Pacific region is most prone and vulnerable to natural disasters owing to its geographical and geological characteristics<sup>4</sup>. To address such severe challenges and achieve food security in the region, as stipulated in Paragraph 10 of the 2010 APEC Niigata Declaration on APEC Food Security (APEC, 2010: FSMM/000)<sup>5</sup>, the APEC Ministers responsible for food security agreed on “*the importance of social protection measures such as safety nets and other policies that protect the most vulnerable from shocks such as natural disasters. In this context, we agreed to examine the feasibility of establishing cooperative approaches to address emergency food needs.*”

As per the Ministers’ recommendation, Chinese Taipei has initiated a cost-effective, cooperative APEC Food Emergency Response Mechanism (AFERM) (APEC, 2011:ATCWG 022011A) in accordance with the principles of voluntary contribution, collective action, risk-sharing, and self-management. The AFERM would be capable of reinforcing a sense of food security in times of unforeseen emergencies. In this context, an emergency refers to a state or condition where a member economy suffers from an unexpected and extreme natural calamity, and is unable to cope with using only its own food stocks.

Specifically, the function of AFERM is to offer short-term emergency food aids in times of natural disasters. The target of reserve is rather small compared to the trade volume and will be released in the fully granted form; thus one of the major characteristics of AFERM is non-trade distorting. Furthermore, the AFERM is not designed to replace the existing food aid programs. On the contrary, it is aimed at working in parallel with the existing schemes and providing a secondary defense for tackling the food insecurity situation in the Asia-Pacific region.

The 2011 G20 Ministerial Declaration<sup>6</sup> puts forward concrete actions to address the challenges facing vulnerable economies and peoples with little resilience to external shocks from natural disasters, extreme weathers, etc. It has asked the WFP and others to propose the design of a targeted emergency humanitarian food reserves system. Before this declaration, the ASEAN plus Three Emergency Rice Reserve (APTERR)<sup>7</sup> has been established to safeguard food security during emergencies resulting from calamities. And one of the APEC-2012 priorities proposed by Russia is to strengthening food security, especially the accessibility of food for vulnerable people. The AFERM is proposed very much in line with this spirit and strive.

### **To sum up, why APEC needs to establish AFERM?**

- The Asia-Pacific is the world’s most disaster prone region. There is a need to enhance regional capacity to prepare for and respond to disasters affecting the agri-food sector.

<sup>1</sup> WFP Website, 2011. Available at <http://www.wfp.org/operations/resourcing>.

<sup>2</sup> From 13.2 million mt in 1990 to 5.7 million in 2009. 2009. “Food Aid Flows”, *World Food Programme*, p.10.

<sup>3</sup> WFP, 2009. “Donors’ food aid cut”, *World Food Programme*.

<sup>4</sup> Rodriguez et al. 2009. “*Annual disaster statistical review 2008: The numbers and trends.*” *Center for Research on the Epidemiology of Disasters (CRED)*. 2009. p. 15.

<sup>5</sup> APEC, 2010, “Niigata Declaration on APEC Food Security”, *1st APEC Ministerial Meeting on Food Security*, Niigata, Japan, October 16-17, 2010

<sup>6</sup> G-20, 2011. “Ministerial Declaration-Action Plan on Food Price Volatility and Agriculture Draft1”, *Meetings of G-20 Agriculture Ministers*, June 22-23, 2011.

<sup>7</sup> ASEAN, 2010. “Bridging Markets and Connecting People”, *ASEAN Annual Report 2009-2010*; ASEAN. 2009. “East Asia Emergency Rice Reserve (EAERR) pilot project.” *Fact sheet*. 2009/AEC/016.; “ASEAN Integrated Food Security (AIFS) Framework, and Strategic Plan of Action on Food Security in the ASEAN Region (SPA-FS)”, 2009-2013.

- The existing regional emergency food reserve schemes do not cover all APEC member economies.
- The existing regional emergency food programs do not encompass all commonly consumed staple crops, such as rice, wheat, maize, etc.
- Volume of international food aid has declined dramatically in the past ten years, while the need for emergency food aid has escalated.
- When extreme climate change affects food production, it often occurs within several proximate economies. The risk of a major food crisis would be decreased if the scope of emergency response mechanisms is expanded to include both sides of the Pacific Ocean and both the Northern and Southern hemispheres. Since APEC members come from diverse areas that produce multiple staple crops, APEC could be more effective to address disaster-incurred food insecurity if it were to endorse and support the AFERM.

## **2. Objectives of AFERM**

- To build a cost-effective and risk-sharing virtual regional multiple food crops network for the provision of a short-term humanitarian food relief during emergencies caused by natural disasters.
- To provide a supportive buffer to APEC member economies experiencing sudden food shortages caused by natural disasters.
- To complement the existing international food aid/reserve programs, thus ensuring that unexpected emergency food needs can be met.

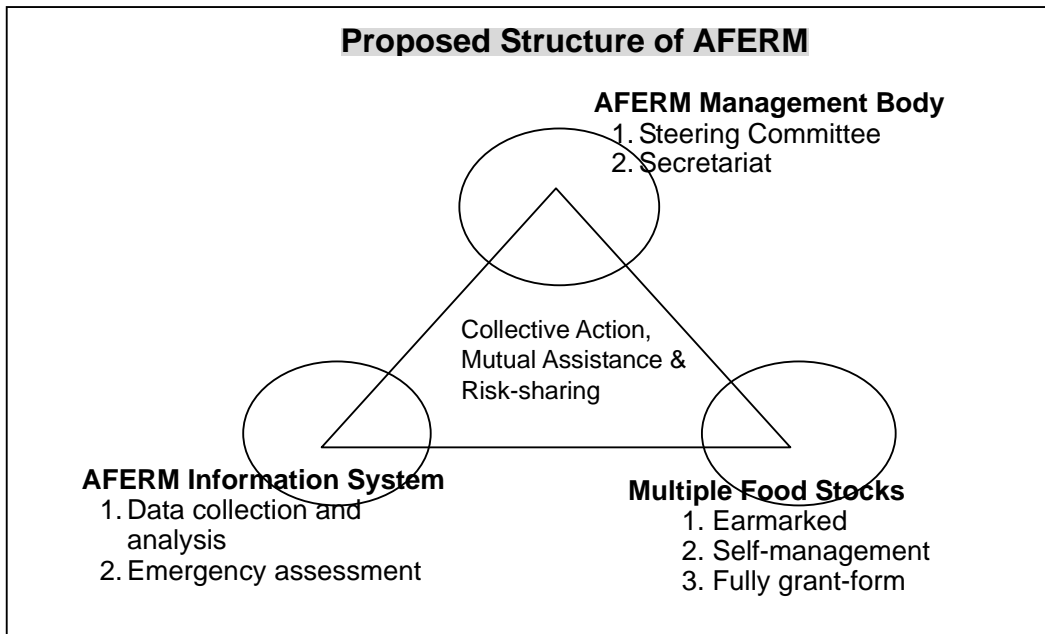
## **3. Features of AFERM**

- A decentralized, cooperative and risk-sharing virtual regional multiple food stock network for the provision of emergency food relief on a short-term basis.
- A cooperative mechanism based on voluntary contribution and mutual reliance, by forming a self-managed, virtual, and any of earmarked rice, and/or maize, and/or wheat reserve from APEC member economies. Earmarked in-cash contributions may also be pledged by member economies for purchasing food from the nearby markets of the recipient economy.
- Timely release of foods in fully granted form to the targeted recipients on a short term basis, thus would not distort the international market.
- Cooperate with the charitable, humanitarian non-profit organizations and relevant government agencies to deliver the emergency food aids.
- Complement with the existing regional food aid/reserve programs to better respond to the rising frequency and intensity of natural disasters.

Based on the all above-mentioned, the AFERM would be a cost-effective, risk-sharing and non-trade-distorting mechanism.

## **4. Proposed Structure of AFERM**

For such a food emergency response mechanism to take shape, three major elements, including AFERM management body, AFERM information system and multiple food stocks, are necessary:



➤ **Decentralized Emergency Multiple Food Stocks**

The decentralized emergency multiple food stocks will be composed of earmarked, virtual and self-managed multiple food stocks (may consist of in-kind and in-cash pledges) contributed by the APEC member economies on a voluntary basis.

➤ **Steering Committee (SC)**

The effective SC will be in place to ensure the smooth functioning of the Mechanism. The committee would monitor food emergencies and decide on the distribution of emergency food relief.

➤ **AFERM Secretariat**

The supportive AFERM Secretariat will be established to provide administrative support to the SC and coordinate the release of food stocks, while maintaining the IS.

➤ **AFERM Information System (IS)**

An up-to-date AFERM Information System will be established for the assessment of emergency, and food availability and needs.

➤ **Network of Humanitarian Groups and relevant government agencies**

A delivery network of humanitarian groups and relevant government agencies will be arranged to expedite the food deliveries. The transportation from the donor economy to the recipient economy would be determined by the parties involved. Furthermore, the relevant government agencies of the recipient economy should provide all necessary assistances for export and import of the food relief.

## AFERM Release Process



### 5. Reserve Size and Triggers

#### ➤ Reserve Size

Since one of the AFERM's characteristics is to complement with the existing regional food aid/reserve programs for short-term emergency food relief, its reserve size is designed to the estimated one- to three-month consumption of staple food for affected people subtracts the average food aid potentially provided by the existing food aid/reserve programs. Therefore, the recommended reserve size will be 0.8 million MT to 2.4 million MT for rice, 8,000 MT to 20,000 MT for maize, and 0.7 million MT to 2 million MT for wheat. Based on the analysis of cost-benefit, for wheat, the cash aid will be the best solution instead of in-kind food relief. Furthermore, the operation of AFERM will not be affected if the earmarked stocks could not reach the recommended reserve size.

#### ➤ Trigger and delivery

- The food relief of AFERM will be proceeding either by Member's appeal or by the Steering Committee's offer. The humanitarian groups could also make a request to the AFERM Steering Committee. All of the procedures should be fully communicated and cooperated with the recipient economies.
- Based on the analysis of cost-benefit, the trigger level of rice, maize and wheat will be 1,000 MT to 3,000 MT, 50 MT, and 100 MT respectively. However, the Steering Committee could make decision for the volume of food aid based on the consideration of humanity.
- After determining the volume of food relief, the AFERM Secretariat will notify its members nearby the affected economies for the earmarked stock release. The food will consequently



be delivered and distributed to affected people through the assistance of humanitarian groups and recipient economies.

## 6. Expected Achievements

- **To offer a cost-effective and risk-sharing supportive buffer**  
The AFERM will offer member economies facing extreme weather conditions the needed emergency food relief and serve as a supportive buffer through collective assistance in a cost-effective manner.
- **To complement existing programs**  
The AFERM would work in parallel with and complement existing regional schemes. This mechanism will try to incorporate a greater number of member economies covering a wider geographical area with diverse geological characteristics.
- **To safeguard emergency food security**  
With the active participation from the majority of APEC member economies and in the spirit of regional cooperation, the AFERM will provide effective food security for economies in emergencies through collective action.

## 7. Appeal

With the establishment of the AFERM, emergency food aids could be provided to APEC member economies experiencing natural catastrophes. Since the AFERM is a self-managed, virtual, and earmarked food reserve pledged by APEC member economies, it does not need extra costs for maintaining the stocks. The outcomes of *A Feasibility Study of APEC Food Emergency Response Mechanism (AFERM)*<sup>8</sup> finalized in March, 2012 also provide an indisputable evidence that the AFERM would be a cost-effective and non-trade distorting mechanism. For these very reasons, Chinese Taipei seeks the endorsement of this initiative from all APEC member economies at the coming 2<sup>nd</sup> APEC Food Security Ministerial Meeting to be held in Kazan, Russia in May, utilizing a pathfinder approach.

## Q&A

### 1. Why should APEC member economies consider the establishment of AFERM?

The Asia-Pacific region is most prone and vulnerable to natural disasters owing to its geographical and geological characteristics. Its food insecurity problem caused by natural disasters is more severe than other regions. The situation is worsened by the increasing frequency and intensity of natural disasters caused by climate change in recent years. The AFERM is therefore designed to offer short-term, emergency and humanitarian food aids in times of natural disasters, with an aim at tackling the problems caused by natural disasters within the Asia-Pacific region. With the establishment of AFERM, emergency food aids could be provided to those vulnerable people of APEC member economies affected by the natural catastrophes.

### 2. Will the AFERM duplicate the existing schemes of food aids?

The AFERM is not designed to replace the existing schemes of food aid, such as WFP, APTERR and other bilateral agreements. On the contrary, it is aimed at working in parallel with the existing schemes and providing a secondary defense for tackling the food insecurity situation in the Asia-Pacific region.

### 3. Will the AFERM be a trade-distorting framework?

The function of AFERM is to offer short-term emergency food aids in times of natural disasters. Since the target of reserve is rather small compared to the trade volume and will be released in the fully granted form, one of the major characteristics of AFERM is non-trade distorting.

### 4. Will the AFERM be a cost-effective mechanism?

Since the AFERM is a self-managed, virtual, and earmarked food reserve pledged by APEC member economies, it does not need extra costs for maintaining the stocks. The outcomes of *A Feasibility Study of APEC Food Emergency Response Mechanism (AFERM)* finalized in March, 2012 provide an indisputable evidence that the AFERM would be a cost-effective mechanism, providing the anticipated benefits of the AFERM would significantly surpass its costs.

### 5. What will the recommended reserve size of AFERM be? Will it still be workable if the earmarked stocks could not reach the recommended reserve size?

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<sup>8</sup> The Study has been discussed at the APEC Food Emergency Response Mechanism Working Meeting to be held on 10-11 April, 2011, in Chinese Taipei.

Since one of the AFERM's characteristics is to complement with the existing regional food aid/reserve programs for short-term emergency food relief, its reserve size is designed to the estimated one- to three-month consumption of staple food for affected people subtracts the average food aid potentially provided by the existing food aid/reserve programs. Therefore, the recommended reserve size will be 0.8 million MT to 2.4 million MT for rice, 8,000 MT to 20,000 MT for maize, and 0.7 million MT to 2 million MT for wheat. Based on the analysis of cost-benefit, for wheat, the cash aid will be the best solution instead of in-kind food relief. Furthermore, the operation of AFERM will not be affected if the earmarked stocks could not reach the recommended reserve size.

**6. How can the food relief of AFERM be triggered and delivered?**

- The food relief of AFERM will be proceeding either by Member's appeal or by the Steering Committee's offer. The humanitarian groups could also make a request to the AFERM Steering Committee. All of the procedures should be fully communicated and cooperated with the receipt economies.
- Based on the analysis of cost-benefit, the trigger level of rice, maize and wheat will be 1,000 MT to 3,000 MT, 50 MT, and 100 MT respectively. However, the Steering Committee could make decision for the volume of food aid based on the consideration of humanity.
- After determining the volume of food relief, the AFERM Secretariat will notify its members nearby the affected economies for the earmarked stock release. The food will consequently be delivered and distributed to affected people through the assistance of humanitarian groups and receipt economies.

**7. How could AFERM set up the network of Humanitarian Groups and relevant government agencies to effectively deliver the food relief?**

- The AFERM Secretariat will request its members to recommend the humanitarian groups which have had the experiences of food aids and been recognized by the international community. By setting up the network of humanitarian groups and relevant government agencies, the food relief could be delivered. In this regard, the relevant government agencies of the recipient economy should provide all necessary assistances for export and import of the food relief.
- In addition, the AFERM Secretariat can closely work with the humanitarian groups for sharing relevant information and be benefited for the assessment of the food needs when the disasters occur.

**8. How could APEC member economies join the AFERM?**

The AFERM will be established and operated using a pathfinder approach. Since the AFERM is a non-binding cooperative mechanism, for the APEC member economies joining this framework, they would have the option to voluntarily contribute any of earmarked rice, and/or maize, and/or wheat donations either in-kind and/or in-cash exclusively for the AFERM.

**9. Who will provide the financial support for the establishment and operation of AFERM?**

Chinese Taipei will support the initial and recurring cost of the AFERM, including the establishment of the Secretariat and the Information System. The contributions from APEC member economies or other sources will be very much welcome.

**Policy Partnership Food Security Meeting**

**Mechanism Design of the  
APEC Food Emergency Response  
Mechanism (AFERM)**

**(ATCWG 02/2011A, ATCWG 05/2011S)**

**Chinese Taipei**

**May 29, 2012**

**Kazan, Russia**

## **Outline**

- 1. Rationale for Establishing the AFERM**
- 2. Food Security Forum and AFERM Working Meeting**
- 3. Objectives of AFERM**
- 4. Key Features of AFERM**
- 5. Governance of AFERM**
- 6. Potential Participants of AFERM**
- 7. Size and Composition of AFERM**
- 8. Operation of AFERM**
- 9. Financing of AFERM**
- 10. Contact**

## 1. Rationale for Establishing AFERM (1/4)

- Natural disasters, often tied to climate change, are on the rise in recent years (UNEP/GRID)
- The Asia-Pacific region bears the brunt of natural disasters that account for 80% of lives lost globally (WB 2011)



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## 1. Rationale for Establishing AFERM (2/4)

- Recent Natural Disasters in the APEC Region
  - Chinese Taipei: Typhoon Morakot in Aug. 2009
  - Chile: Coastal earthquake in Feb. 2010
  - Australia: Queensland floods in Jan. 2011
  - New Zealand: Christchurch earthquake in Feb. 2011
  - Japan: Earthquake coupled with tsunami in Mar. 2011
  - Thailand: Months of monsoon flooding in 2011
  - Philippines: Typhoon Washi in Dec. 2011

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## 1. Rationale for Establishing AFERM (3/4)

- Rising natural disasters but less food aids
- The 2010 APEC Niigata Declaration on Food Security – “... we agreed to examine the feasibility of establishing cooperative approaches to address emergency food needs.”
- The 2011 G20 Agriculture Ministerial Declaration has called for the strengthening of societies’ resilience and enhancement of food supply capacities by **targeting regional emergency humanitarian food reserve.**

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## 1. Rationale for Establishing AFERM (4/4)

- APEC Food Emergency Response Mechanism (AFERM)
  - In 2010, Chinese Taipei proposed a cost-effective, cooperative **AFERM** under the principles of **voluntary contribution, collective action, risk-sharing and self-management**
  - It is to address a state where a member economy suffers from natural calamities and is unable to meet the emergency food needs on its own

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## 2. Food Security Forum and AFERM Working Meeting(1/7)

- 2011 APEC Food Security Forum (August 9-10)
  - 65 participants from 17 economies, APEC Secretariat and NGOs attended
  - Agreed to the overall concept of AFERM
  - Called for a detailed proposal and cost-benefit and socio-economic impact analyses of AFERM



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## 2. Food Security Forum and AFERM Working Meeting(2/7)

- 2012 AFERM Working Meeting (April 10-11) (1/6)
  - Chinese Taipei organized an expert team to prepare a report entitled “*A Feasibility Study of APEC Food Emergency Response Mechanism (AFERM)*” for the discussion
  - Attended by 60 participants from 19 member economies, APEC Secretariat, ATCWG and NGOs



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## 2. Food Security Forum and AFERM Working Meeting(3/7)

### ● 2012 AFERM Working Meeting (2/6)

#### Key Findings (1/3)

- The AFERM is designed to be a **regional network of virtual food stocks**, composed of **earmarked multiple crops**
- It would be **cost-effective** above certain levels to have the AFERM applied to **rice and maize in-kind**, and **wheat in-cash**
- Economies would have the option to **voluntarily contribute** any of earmarked rice, and/or maize, and/or wheat donation either in-kind and/or in- cash

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## 2. Food Security Forum and AFERM Working Meeting(4/7)

### ● 2012 AFERM Working Meeting (3/6)

#### Key Findings (2/3)

- The AFERM is designed to be a cost-effective, cooperative mechanism under the principles of **voluntary contribution, collective action, risk-sharing, self-management, and non-trade-distorting**
- The AFERM is to be used for **short term** emergency food reliefs in times of **natural disasters**, and it is a **fully-grant** form of food relief from earmarked reserves (in-kind and/or in-cash) to be pledged by member economies. Thus, it would **not distort the international food market**

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## 2. Food Security Forum and AFERM Working Meeting(5/7)

### ● 2012 AFERM Working Meeting (4/6)

#### Key Findings (3/3)

- The AFERM is designed to serve as a **second line of defense** complementing the existing humanitarian food aid programs
- The AFERM would **require commitment** on the pledges of the voluntary contributions with **some flexibility**, taking into consideration changing economic and other circumstances

(Please refer to the [Summary Report of AFERM Working Meeting](#) for the original text) 10

## 2. Food Security Forum and AFERM Working Meeting(6/7)

### ● 2012 AFERM Working Meeting (5/6)

#### Recommendations (1/2)

- Delegates agree to the following subsequent actions to be taken:
  - > Members to consider the **endorsement** of AFERM as a **pathfinder initiative**
  - > Chinese Taipei, with the assistance of the AFERM Expert Team, is to further refine the distributed report on **A Feasibility Study of APEC Food Emergency Response Mechanism (AFERM)** by incorporating the participants' comments and suggestions as described in the Meeting Report

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## 2. Food Security Forum and AFERM Working Meeting(7/7)

### ● 2012 AFERM Working Meeting (6/6)

#### Recommendations (2/2)

- > By using the revised version of the aforesaid report as the background paper, Chinese Taipei is **to report the proposed AFERM** to the **upcoming meetings** to be held in **Kazan, Russia**, including PPFs, ATCWG Annual Meeting, Friends of the Chair Meeting and subsequent Ministerial Meeting on Food Security **for their consideration** to adopt as a **pathfinder initiative**



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## 3. Objectives of AFERM

- To build a **cost-effective**, and **risk-sharing** regional **multiple food crops network** for the provision of **short-term humanitarian food reliefs** during emergencies caused by natural disasters
- To provide a **supportive buffer**
- To **complement** existing international food aid/reserve programs

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#### 4. Key Features of AFERM (1/2)

- A **virtual** regional multiple food crops network for humanitarian food reliefs
- A **cost-effective** and **non-trade distorting** cooperative framework
- Targeting only **short-term**, emergency, and **fully granted** form of food relief from earmarked reserves to be pledged by member economies. Thus, it **would not distort the international food market**

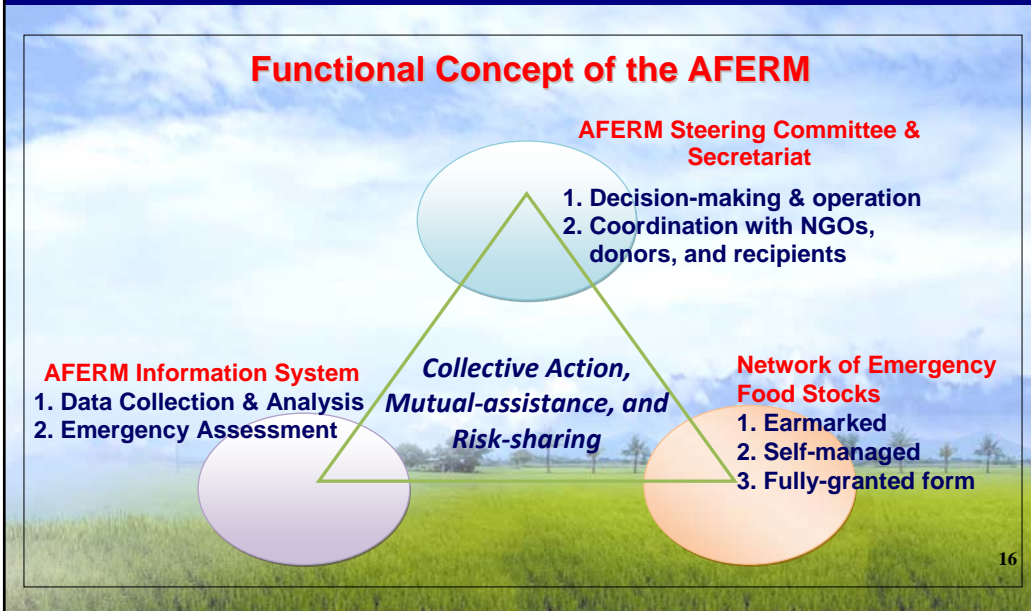
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#### 4. Key Features of AFERM (2/2)

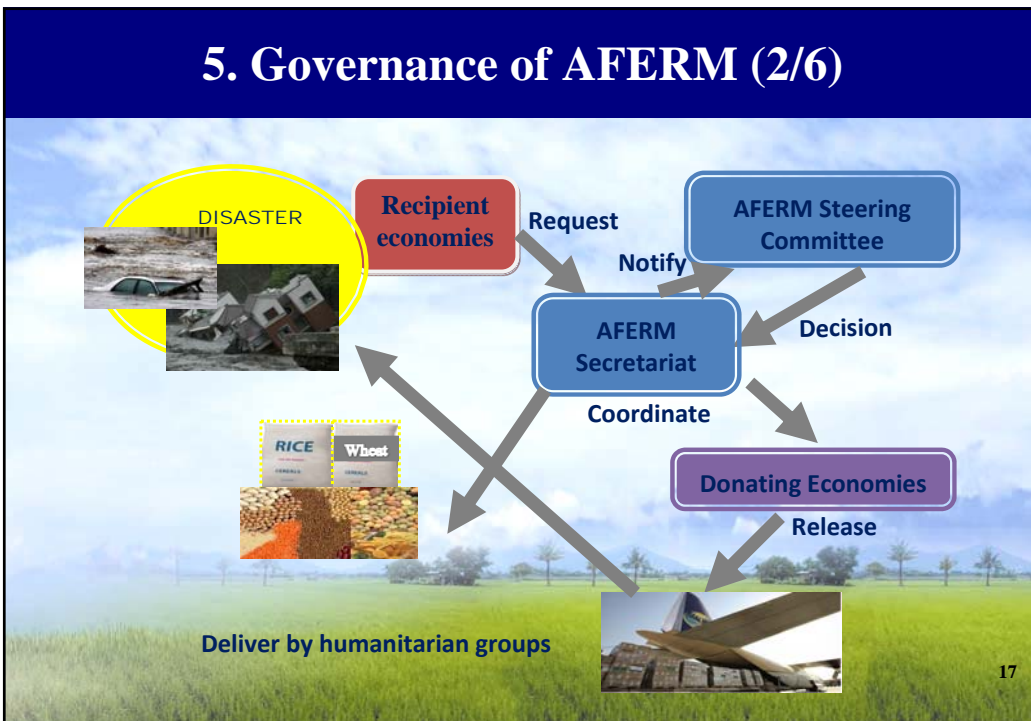
- Both **in-kind** and **in-cash** donations can be earmarked
- Complement the existing regional food aid/reserve programs and serve as **a second defense line**
- **Cooperate with humanitarian NGOs and recipient economy** to deliver the emergency food aids

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## 5. Governance of AFERM (1/6)



## 5. Governance of AFERM (2/6)



## 5. Governance of AFERM (3/6)

### ● Steering Committee (SC)

- **Membership:** Participating economies
- **Meetings:** Annual meeting and e-meetings
- **Chairperson:** Elected by participating economies
- **Responsibilities:**
  - > Supervise the AFERM Secretariat and Information System
  - > Make decisions on the release of the food stocks
  - > Report the earmarked food stocks annually
  - > Discuss food security related issues

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## 5. Governance of AFERM (4/6)

### ● AFERM Secretariat

- **Composition:** Four staff
- **Location:** At a voluntary AFERM member willing to afford the costs (Chinese Taipei is willing to set up the Secretariat and bear costs at the initial stage)
- **Tasks:**
  - > Maintaining the AFERM Information System.
  - > Implementing the tasks assigned by the SC
  - > Providing administrative support to the SC
  - > Coordinating the release of the food stocks
  - > Supervising the delivery of food stocks

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## 5. Governance of AFERM (5/6)

### ● AFERM Information System (IS)

- **Goals:** Assessment of emergency, food availability and needs
- **Tasks:**
  - > Collect and analyze relevant information on targeted products
  - > Collect and manage information on earmarked food stocks
  - > Collect information on natural disasters
  - > Collect information about humanitarian NGOs
  - > Collect information on government agencies of AFERM members relating to food aid delivery

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## 5. Governance of AFERM (6/6)

### ● Network of Humanitarian Groups

- A delivery network of **volunteer humanitarian groups** would be arranged to expedite the food deliveries and bear transportation costs
- The transportation from donor economy to recipient economy would be determined by the parties involved

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## 6. Potential Participants of AFERM

- All APEC members are welcome
- Participation understanding:
  - Pledge an earmarked food stocks (in-kind and/or in-cash) for the AFERM
  - Participate in the AFERM Steering Committee and support the AFERM Information System
  - Identify an agency to liaise with the AFERM Secretariat
  - Provide all necessary assistances for export and import of the food relief

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## 7. Size and Composition of AFERM

- The proposed target size is to meet the needs of consumption for **one to three months**
- Computation of target: Estimated needs - Existing food-aids = Target size
  - Rice: **0.8~2.4** million MT (earmarked stock)
  - Maize: **8,000~20,000** MT (earmarked stock)
  - Wheat: **0.7~2.0** million MT (in-cash)
  - Other kinds of food are welcome

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## 8. Operation of AFERM

### ● Triggers

- #1: **Requests by members**
- #2: **Steering Committee's Offers**
  - > NGOs can make a request via the AFERM Secretariat or AFERM members for food relief
  - > Based on the analysis of AFERM research team, when each food relief reaches **1,000 MT for rice, 100 MT for wheat, or 50 MT for maize**, it would be cost-benefit
  - > The amount of food relief will be decided upon the SC's discretion after consulting with the recipient economy and NGOs

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## 9. Financing of AFERM

Estimated Initial Costs (US\$)	
Initial Equipment and Other Set-up Costs	67,000
<b>Total</b>	<b>67,000</b>
Estimated Recurring Costs (US\$) Per Year	
Personnel	98,000
Administration and Facilities	47,200
Equipment	1,200
Operational Expenses	32,400
<b>Total</b>	<b>178,800</b>

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## 10. Contact

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**Thank you for your attention!**

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