GREATER MEKONG SUBREGION ECONOMIC COOPERATION PROGRAM

DEVELOPMENT PARTNERS MEETING ON GMS BIOFUELS AND RURAL RENEWABLE ENERGY Bangkok, Thailand, Morning, 5 March 2009

Summary of Proceedings

Introduction

1. The GMS Core Agriculture Support Program (CASP) endorsed by the GMS Agriculture Ministers' Meeting in 2007 outlines the key objectives, program components, and indicative projects for subregional cooperation to be pursued by the Working Group on Agriculture (WGA) between 2006-2010. One of the 5 components of the CASP is the enhancement of capacity in agriculture science and technology. The development of biofuels and rural renewable energy is one of the priority projects identified under this component. At the Third GMS Summit held in March 2008, the GMS Leaders issued a number of directives for future action under the priority sectors of cooperation of the GMS Economic Cooperation Program. In the agriculture sector, the Leaders directed the implementation of the GMS initiative on biofuels and rural renewable energy development. The Asian Development Bank (ADB), with technical and funding support from the International Fund for Agricultural Development (IFAD), commissioned the Southeast Asian Regional Center for Graduate Study and Research in Agriculture (SEARCA) to do a study that developed short-, medium-, and long-term development strategies, a policy framework for RRE and biofuels development in the subregion, and an action plan covering further analysis/evaluation studies, pilot demonstration projects, research and development, and capacity building and training. The draft Strategic Framework and Action Plan on RRE Development in the GMS resulting from the study was endorsed at a regional workshop held immediately preceding the 5th Meeting of the WGA held in September 2008.

2. A Development Partners' Meeting on Biofuels and Rural Renewable Energy was held at the FAO Regional Office in Bangkok, Thailand on 5 March 2009, morning. Participants included senior officials from the GMS countries (Cambodia, People's Republic of China, Lao PDR, Myanmar, Thailand, and Viet Nam), and representatives of FAO, IFAD, and ADB. The objectives of the Development Partners' Meeting were to: (i) review the findings, recommendations, and lessons learned from the GMS study on biofuels and RRE and discuss forward-looking strategies and next steps; (ii) share experiences on ongoing initiatives on biofuels and RRE; and (iii) explore potential areas of collaboration and investment options in biofuels and RRE development. A list of participants is in Appendix 1 and a copy of the program and agenda is in Appendix 2.

Highlights of the Meeting

Introductory Remarks

3. Representatives of key development partners, i.e., ADB, FAO, and IFAD gave introductory remarks.

4. Mr. He Changchui, Assistant Director-General and FAO Regional Representative for Asia and the Pacific, stated that bioenergy development presents a unique opportunity to promote rural development in the GMS, given its potential both as an energy resource and as alternative market for the region's small farmers. He highlighted the attendant risks in uncontrolled expansion of biofuels that could threaten the food security of vulnerable communities, and deplete scare natural resources. He underscored the need for cooperation, particularly in the sharing of experiences on policies and programs to better inform each other on the potentials and limitations of bioenergy development; the sharing of expertise, capacities, and good practices in bioenergy development; and the development of strategies that put the livelihood of vulnerable communities at the forefront of policy development and implementation. He noted that ADB, IFAD, FAO, and the GMS countries have joined hands in collaborative efforts. The next steps would be to identify the gaps and areas where further work is required. He looked forward to continuing to work together in a truly cooperative spirit in bioenergy for rural development and poverty reduction in the GMS.

5. Ms. Sununtar Setboonsarng, Senior Agricultural Economist, Agriculture, Environment and Natural Resources Division, Southeast Asia Department, ADB, welcomed participants and expressed gratitude that ADB could work with FAO, IFAD, and the GMS countries on this important meeting on biofuel strategy for the GMS. The aims of this meeting are to review findings, recommendations and lessons learned from the GMS study on biofuels and rural renewable energy to identify gaps, and to discuss forward-looking strategies to operationalizing the strategy through mutually beneficial investments. She also expressed apologies on behalf of Mr. Urooj Malik, Director of the Southeast Asian Agriculture and Natural Resources Division, and Mr. Mahfuz Ahmed for not being able to attend the meeting as originally planned.

6. Mr. Thomas Elhaut, Director, Asia and Pacific Division, Programme Management Department, IFAD, underscored the task ahead to identify the gaps and what can be done to fill those gaps and upscale to future investments. IFAD's key interest is in rural poverty reduction and contributing to increased agricultural productivity in rural areas. Interest in RRE is consistent with IFAD's interest in addressing environmental issues. RRE development has the potentials for creating growth, raising income in rural areas, and creating decentralized local energy systems. Work on clean energy should proceed even as the world price of fossil fuel has recently gone down, in view of the continued volatility of oil prices. Bioenergy work needs to be linked also with new forms of financing, access to additional resources, particularly from the private sector. He noted that WGA has the unique opportunity and a strong drive for regional cooperation in RRE without compromising food security. He looked forward to learning from the meeting and staying engaged with the GMS, in partnership with ADB, FAO, and the GMS countries.

Status and Progress of the GMS Biofuels and Rural Renewable Energy Initiative: Recommendations of the Study and Regional Strategic Framework

7. Ms. Mercedita Sombilla, Consultant, ADB, summarized the findings, conclusions and recommendations of the study on the GMS Biofuels and Rural Renewable Energy Initiative. The study (i) covered a preliminary assessment of the potentials of developing the biofuels

subsector in the GMS, given its resources; (ii) identified the technologies currently used for biofuel production, the research and training needs and the agri-business options best suitable for integrating small farmers in the biofuel chain; and (iii) reviewed current policies on biofuel development and identified policies to facilitate the implementation of the biofuel strategic framework to achieve greater energy security in the rural areas and promote rural development without threatening food and feed markets.

8. Several factors have prompted biofuel development in the subregion. These include rapid economic growth leading to increased energy consumption, particularly fossil fuel; expanding fossil fuel imports at high and unpredictable volatile prices; the need for "green energy" in response to the challenge of climate change; and the need to ensure energy security, particularly in rural areas. Biofuel production (bioethanol and biodiesel) in commercial scale is actually undertaken in PRC and Thailand, while in the other GMS countries, biofuel production is either just starting or in still in the experimental/pilot stage. The potential of biofuel production in the GMS is determined by the availability of selected feedstocks that could grow in marginal lands, processing technologies, and human resources. There are agri-business options that can integrate small farmers and promote cross-border trade, including community-based biodiesel processing plants, commercial-scale processing ventures under contract growing arrangements, and cross-border trade in feedstocks and biofuels. Although statements of policy support for biofuel development exist in all the GMS countries, strategies need to be carefully formulated to ensure sustainable development and food security. The expansion of feedstock supply to meet biofuel production targets poses a big challenge and require a coordinated subregional strategy that would address such key elements as (i) development of carefully designed biofuels production plans; (ii) strong R & D, complemented by strong human resource capacity in feedstock production and biofuel processing technologies; (iii) expansion of small-scale biofuel business ventures; (iv) cross-border trade arrangements; and (v) effective public awareness campaign. Several scaling up and follow-up activities and the nature of support requirements were outlined in the study. These include (i) resource database development, management, and maintenance at the national and subregional levels; (ii) additional market/research studies on feedstock production and trade, research on non-grain energy crops, and potential and environmental impact on marginal areas for energy crop establishment; (iii) technology transfer, including establishment of pilot demonstration projects, and biofuel processing-related training; and (iv) institutional strengthening through creation of national biofuel coordinating committee and public awareness campaigns.

FAO TCP Project "Integrating Community-level Perspectives into GMS Bioenergy Policies: Project Rationale, Design and Timeline"

9. Mr. Beau Damen, Bioenergy Officer, Forestry Department Group, FAORAP, outlined the conceptual background and structure of a new FAO TCP Project on Integrating Community-level Perspectives into GMS Bioenergy Policies that will complement the earlier work under the ADB-IFAD-FAO partnership. The project aims to encourage informed, coordinated, and holistic policy approaches to bioenergy development, and provide direction for more effectively utilizing bioenergy for poverty reduction in the subregion. Project components consist of the following: (i) community-level energy and related service needs assessments; (ii) community-level impact assessments of existing biofuel policy frameworks; (iii) best practice case studies; and (iv) a

final GMS regional workshop to discuss the findings and further action required. Budget requirement amounts to US$374,000, and activities commence with consultations with potential project partners and GMS countries in February-March 2009, culminating in national and regional workshops in early 2010.

Open Forum: "Lessons Learned and the Way Forward: Regional and Country Perspective"

10. FAO suggested the desirability of including in the study report some information on the amount of biofuel production per capita per country, and also the need for second and third generation research on new technologies. Ms. Sombilla expressed that per capita figures on biofuel production and consumption are in the report. She added that the report also made mention on the need to explore 2nd generation research on biofuel technologies.

11. In response to a query from IFAD on the assessment of the state of cross-border trade on biofuel feedstocks and what are the bottlenecks, Ms. Sombilla responded that although mechanisms are already in place for cross-border trade, regulations in terms of grading and pricing of feedstocks are not yet set.

12. PRC representative stated that for thousands of years, the rural people in China have re-cycled biomass to produce renewable energy for their energy requirement. These traditional technologies should not be overlooked even as discussions about biofuels development continue. Although promising, biofuels development confronts major constraints, such as: (i) land availability; (ii) water; (iii) unknown biodiversity implications; and (iv) environment and climate change impacts on the rural poor. He emphasized the need for more research on biofuels development. PRC's policy is that there should be no competition between biofuel and food crops. PRC is encouraging biogas, solar energy, and other natural energy resource development and continues to cooperate with the GMS countries and development partners, particularly in the establishment of about 1,500 units of biogas digesters for rural households.

13. Lao PDR representative presented the status and challenges of biofuel and RRE development in the country. Energy production and consumption respond mainly to the subsistence economy of the country. Major rural industries use energy for water pumping, rice milling, and other agricultural-based activities, as well as brick production and stone-crushing operations. About 95% of rural households use fuel wood. The country needs to create a legal framework for RRE development and establish an institutional structure and mechanism to address technical, social and financial barriers for dissemination. Biofuels production is from jatropha, cassava, maize and sugar cane plantations in the central and southern parts of the country – benefiting investors mostly. He emphasized the need for rigorous needs assessment, formulation of strategy, master plan and regulatory framework to guide biofuels development. He pointed out that biofuels production is still largely unplanned (wild-wild west, land-grab type) with no clear indications of benefits to national growth and poverty reduction targets, land delineation and clear implementable policies for technical support. Formal cross-border value chain production and trade arrangements need to be put in place. The roles of donors need to be clarified, and the recommended interventions in the study prioritized.

14. Representative of Cambodia recalled that the GMS Strategic Framework for Agricultural Cooperation which was endorsed by the Agriculture Ministers included a rural renewable energy development initiative which was also endorsed at the last WGA meeting in 2008. Now that the technical study has been completed and the strategy has been finalized and endorsed, WGA has to move forward in terms of concrete actions, keeping in mind the need to balance food security and energy security. He expressed agreement with the points raised by IFAD in the opening speech on the focus of attention that need to be considered. He emphasized that biofuels development must address both production and processing issues and that there should be a balance between production and processing. Issues on cross-border trade in biofuels should also be emphasized for future action, as well as agribusiness options and involvement of the private sector. There is need for clear government policy on the role of government in encouraging private sector involvement. He suggested the need to set-up targets and specific timeframes for biofuels development in the GMS.

15. Representative of Myanmar expressed agreement with the recommendations outlined in Ms. Sombilla's presentation. He stated that Myanmar is generally energy self-sufficient, given its vast natural gas reserves, still they are emphasizing RRE development for long-term energy sufficiency. The priorities identified in the study are applicable in the case of Myanmar, particularly since the country lacks the necessary knowledge and technology resources, R & D capability, and human resource capacity. He underscored the importance of private sector participation in biofuels business ventures, as well as that of cross-border trade and the need to create profit opportunities for local and foreign investors. He emphasized public-private, public-public, and private-private partnerships in setting up meaningful biofuels development policy.

16. Representative of Thailand expressed agreement with the recommendations of the study and stated that Thailand emphasizes national food policy. She suggested that the promotion of small and medium enterprises, technology transfer and training of personnel, public-private partnership, cross-border trade, and private investment should be encouraged. She agreed with the concern on the impact on the environment and the need for parallel studies to better inform policy-making bodies.

17. Representative of Viet Nam stated that energy security and environmental protection are urgent issues for the government. As a tropical country with an agro-based economy, Viet Nam has favorable conditions for producing biofuels from biomass. Viet Nam has invested in scientific and technological requirements for biofuels production, including the conduct of applied research on biofuel production and consumption, training of biologists, and the setting up of fuel blending and distributing enterprises. The production and consumption of biofuels has become widely accepted. There are a number of constraints, however, in terms of: (i) the level of technology and equipment (most are obsolete, incomplete, designed for small capacity production, and consume large amounts of energy); (ii) quality of human resources (well-trained scientists and technicians are in short supply, and lacking adequate experience in using modern technology for biofuel production); (iii) limited investment in R & D, production, distribution systems, upgrading of human capacity and physical facilities, and public awareness; (iv) lack of coordination among agencies responsible for development and applied research; (v) materials and biomass source for biofuel production training still use old strains and traditional cultivating methods, resulting in low productivity and quality; (vi) Legal system:In the field of biofuel production, Vietnam has yet to formulate mechanism and incentives for investment, attraction

and development of human resources, improvement and development of materials, technological transfer, intellectual property rights protection and investors' interest. Regulations on environmental protection regarding the promotion of clean fuel consumption as well as standardization of biofuel have yet to be introduced; (vii) limited international cooperation in R & D, developing a legal framework for production and consumption of biofuels, training, and transfer of technology and equipment. To address these constraints, the Vietnamese government has issued several policy directives but the lack of financial resources remains a challenge.

Gap Analysis and Results Matrix on Next Steps

18. FAO presented a draft matrix summarizing the conclusions and recommendations from the study, the proposed actions, and identified gaps. FAO suggested for the participants to review the matrix and give further inputs on how to progress work arising from the study, particularly on the gaps and other considerations that need to be followed up in the near term at both the country and subregional levels.

19. Lao PDR pointed out that in their case as a supplier of land, a critical concern is how much land can be set aside for biofuels production, and that while cross-border value chain has regional bearing, Lao PDR is not getting any at all. There is a need to come up with a common agreement to develop and ensure a healthy cross-border value chain, political sensitivities aside, given the previous sad experience in the case of exports of sugar cane and maize that were affected by the closure of borders with Thailand.

20. ADB (RSDD) representative shared information on promoting green agriculture supply chain to improve long-term sustainable food security system, mitigate climate-change and reduce adverse impacts on agricultural productivity. She stressed the need to factor in other considerations such as the accentuation of the north-south divide on a business-as-usual approach, the challenge of balancing the trade-offs between food security and biofuels, and the need for new institutional arrangements for land and water ecosystems as well as new financing mechanisms.

21. IFAD shared information regarding planned studies in PRC, the Philippines, and Indonesia that will help policy makers develop coherent policies on biofuels development and food security, environment, and natural resources management. The subsequent biofuels studies will hopefully provide responses to issues raised in relation to the use of marginal lands, productivity potentials of the non-food feedstocks, etc.

22. ADB (SERD) representative reiterated the general sentiment that biofuels development must not compromise food security. While there is no one-size-fits all measure, there is room for improvement to benefit small holders, reduce greenhouse grass emission, strengthen public-private partnership, and trade facilitation arrangements. She pointed out that research on second generation biofuel technology which produce biofuel from cellulose are progressing rapidly. When the technology will be viable, it will ensure that biofuels development does not compromise food security. Given the range of required actions in biofuel development, she suggested the need to prioritize activities.

23. Some countries, however, pointed out that WGA has already done earlier prioritization exercises and has previously agreed on prioritization criteria. They suggested that these be applied in the case of biofuels development.

24. After lengthy consideration and confirmation from Ms. Sombilla that the conclusions and recommendations contained in the study were drawn and culled from the individual country studies in which country experts participated actively, the Meeting expressed general agreement and satisfaction with the results of the study and decided that the gap analysis questionnaire handed out by FAO to be filled during the meeting was not necessary. What was needed was to move on with specific actions at the subregional level as outlined in the study.

25. Copies of presentations and other reference materials are in Appendix 3.

Closing Remarks

26. ADB representative reiterated the principle that biofuels development should not compromise food security. With regard to issues related to cross-border production and processing of feedstock, ADB will continue the dialogues and discussions in the cross-border contract farming and trade the following day. In this context, she also referred to the comments made by FAO during the WGA-5 Meeting in Vientiane about the significant role played by the GMS countries as the world's food basket. As a food surplus region, the GMS has a moral obligation to facilitate the availability and affordability of food to meet world demand. She thanked everyone for their inputs and enjoined their continued cooperation to work together on specific actions to implement the recommendations of the study.

27. FAO representative thanked everyone for their participation. He recalled that the previous consultation on biofuels development was held at a time when oil price was at high levels and stressed that biofuels development should be associated with long-term rural development – whether oil price is high or low, and there should be flexible policies to adjust to changing economic environment. He noted that the meeting provided a good opportunity to renew the partners' common goals and commitment to work together for their common objective.

28. IFAD representative noted that conditions have indeed changed – food and oil prices are down, but long-term biofuels development should not be confused with short-term realities. The challenge is to help farmers adjust to changing conditions. IFAD will continue to look at biofuels investments in the context of rural development, the strengthening of institutional arrangements, and co-financing possibilities.