



Technical Assistance Report

Project Number: 36620
June 2006

Expansion of Subregional Cooperation in Agriculture in the Greater Mekong Subregion (Cofinanced by the Government of the People's Republic of China)

Asian Development Bank

ABBREVIATIONS

ADB	–	Asian Development Bank
AINS	–	agriculture information network service
ASEAN	–	Association of Southeast Asian Nations
CASP	–	core agriculture sector program
CGIAR	–	Consultative Group on International Agriculture Research
FAO	–	Food and Agriculture Organization
FECC	–	Foreign Economic Cooperation Center
GMS	–	Greater Mekong Subregion
PRC	–	People's Republic of China
TA	–	technical assistance
WGA	–	working group on agriculture

TECHNICAL ASSISTANCE CLASSIFICATION

Targeting Classification	–	Targeted intervention
Sector	–	Agriculture and natural resources
Subsector	–	Agriculture sector development
Themes	–	Regional cooperation, sustainable economic growth, capacity development
Subthemes	–	Promoting economic efficiency and enabling markets, institutional development, organizational development

NOTE

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

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I. INTRODUCTION

1. The Greater Mekong Subregion (GMS) Economic Cooperation Program, initiated in 1992 with assistance from the Asian Development Bank (ADB), promotes sustainable economic growth and helps reduce poverty in the subregion by strengthening the economic linkages between the six participating countries.¹ In the GMS countries, agriculture sector plays a vital role in reducing rural poverty, and is a priority sector under the GMS Program. In April 2002, ADB provided small-scale technical assistance (TA)² to facilitate consultations and identify opportunities for increased cooperation in the agriculture sector among GMS members. Based on these consultations, in July 2002, the GMS countries established a working group on agriculture (WGA) as a forum for identifying and realizing opportunities to increase cooperation among GMS countries in the agriculture sector. In June 2003, ADB provided a regional TA³ for providing technical, financial, and administrative support for the operationalization of the WGA. This TA was implemented successfully, and has brought about greater awareness and closer cooperation in several areas in GMS agriculture.

2. During the second GMS Leaders' Summit held in Kunming, People's Republic of China (PRC) on 4–5 July 2005, the GMS heads of governments affirmed that agricultural development is essential for poverty reduction and pledged to (i) accelerate cooperation in the agriculture sector, and (ii) focus on collaborative efforts on the cross-border dimensions of agriculture. Citing ADB's unique role as lead coordinator, facilitator, and catalyst of the GMS Program, the GMS leaders urged ADB to play an even larger role in bringing GMS to the center stage of economic integration in Asia by mobilizing higher levels of resource and knowledge transfers. The GMS leaders also called on ADB to help organize an agriculture ministers' meeting to galvanize support for the sector within a common framework of partnership among GMS countries and other stakeholders.

3. In response to the Kunming Declaration, ADB assisted in preparing a draft strategic framework and a core agriculture sector program (CASP) for regional cooperation in agriculture. This was discussed and endorsed in principle by all six countries at the third meeting of the GMS WGA, held in Hue, Viet Nam on 15–16 February 2006. The CASP (2006–2010) provides a common vision for policy and program development in the region. It comprises (i) cross-border agricultural trade program, (ii) partnership program for a GMS agriculture knowledge network, (iii) cooperative program for capacity building in agriculture, and (iv) emergency preparedness and response program for agricultural crises. The proposed TA will support the operationalization of the CASP. The TA design and monitoring framework is in Appendix 1.

II. ISSUES

4. Reducing poverty is the overriding priority of all GMS countries, where more than 30% of the population (about 310 million) lives below the poverty line. Despite strong economic performance and improving living conditions over the last decade, poverty remains widespread. Agriculture is the major source of employment in GMS countries and a significant contributor to export earnings, much of which is intra-GMS trade in agriculture and agro-based products. Agriculture's contribution to gross national product ranges from about 60% in Myanmar, 53% in Lao People's Democratic Republic, and 37% in Cambodia to 24% in Viet Nam, 21% in Yunnan,

¹ Cambodia, Lao People's Democratic Republic (Lao PDR), Myanmar, Thailand, Viet Nam, and Yunnan Province and Guangxi Zhuang Autonomous Region of the People's Republic of China.

² ADB. 2002. *Technical Assistance for a Study on Subregional Issues in the Agriculture Sector in the Greater Mekong Subregion*. Manila (TA 6034-REG).

³ ADB 2003. *Technical Assistance for Promoting Partnerships to Accelerate Agriculture Development and Poverty Reduction in the Greater Mekong Subregion*. Manila (TA 6110-REG).

20% in Guangxi, and 9% in Thailand. Most of the poverty occurs in rural areas where the poor continue to depend on semi-subsistence agriculture for their livelihood.

5. Current constraints to agriculture-led growth are quite different from those during the green revolution. Most readily available arable lands have already been cultivated and any increase in productivity is possible mostly through improved technology and increased access to resources. The forces of trade liberalization and globalization often shift the power structures (and values) of agricultural value chains away from producers, which prevents many producers in developing countries from reaping the benefits of increased agricultural productivity. Thus, there is a need for upgrading these value chains within GMS countries by creating conditions conducive for investments and promoting product and process innovations. Further, the increased consumer awareness on health and safety concerns and the requirements for widely recognized standards by global markets requires implementation of sanitary and phytosanitary measures in agricultural trade. Therefore, producers must actively respond to the changing structure of market demand in addition to using a new generation of technologies.

6. In GMS countries, the current policy environments are not fully conducive to producer competitiveness, and the agricultural industries are still at an early stage of development. There is a need for governments to provide trade support services to facilitate access to intra- and interregional markets, reduce transaction costs and provide the requisite trade knowledge, so that the region itself could become competitive with sufficient economies of scale. Genuine partnership between GMS countries, bilateral donors, and international and regional agricultural research institutions; and increased technical and financial resources must also be committed over extended periods to support the development of regional and national capacities for improving competitiveness, establishing the needed policy framework and common standards, removing trade barriers, and facilitating national and international marketing of export quality products.

7. With increasing urban-rural disparity, there is a need to reduce the knowledge divide to enable rural farmers to acquire the knowledge needed to adjust and meet modern challenges in agriculture. This could be achieved by establishing an agriculture information network service (AINS) and agri-knowledge platforms. Much information on agriculture is available on various information networks and knowledge banks⁴ established by specialized agencies. However, the lack of effective mechanisms to share this information among the relevant people and organizations in the subregion constrains opportunities to capitalize on it, and lack of access to timely information limits the capacity to effectively and efficiently respond to cross-border threats and opportunities in the subregion. The need to establish a subregional network covering all aspects of agriculture was endorsed by all six countries at an agriculture information network workshop⁵ in the PRC in December 2004. It was also agreed that PRC would serve as the lead for establishing and managing the network. Details of the proposed establishment and operationalization of AINS are in Appendix 2. While AINS would help in sharing the information on agriculture knowledge, there a need to help rural farmers acquire and apply knowledge to local conditions for increasing the productivity of sustainable agriculture. One way of addressing this problem is to establish rural agri-knowledge platforms that could serve as one-stop service centers to help farmers acquire and apply knowledge. These platforms could be supported by technical hubs maintained by national and regional centers of excellence.

⁴ Rice Knowledge Bank (RKB) developed by the International Rice Research Institute (IRRI); Agriculture Knowledge Platform for Mekong Countries (AGRIMEK) and Markets and Agriculture Linkages for Cities in Asia (MALICA) developed by the Centre de coopération internationale en recherche agronomique pour le développement (CIRAD).

⁵ GMS agricultural information network workshop organized by the PRC Ministry of Agriculture and held in Beijing, PRC on 7–9 December 2004.

8. Following the WGA-1 meeting,⁶ ADB financed several initiatives on agriculture from 2003 to 2004,⁷ and provided an umbrella TA (footnote 3) to partly finance the cost of agriculture workshops and seminars organized by GMS countries and partner organizations, such as the Food and Agriculture Organization (FAO) and selected Consultative Group on International Agriculture Research (CGIAR) centers. These action-oriented initiatives, which included financing the WGA-2⁸ and WGA-3 meetings, have contributed to closer partnership and collaboration among GMS countries. They have also resulted in minimizing duplication of efforts and increasing investments in capacity building in the agriculture sector in GMS countries. With the preparation of the strategic framework and the CASP, the task of coordinating countrywide and intraregional programs and projects becomes more complex. Mechanisms for coordination, operational protocols and procedures, and cooperation agreements among GMS countries need to be established and national coordination support services will have to be strengthened for effective country consultation on priority issues.

III. THE TECHNICAL ASSISTANCE

A. Impact and Outcome

9. The intended impact of the TA is enhanced growth performance of the agriculture sector in the in the GMS region through increased investments and enhanced cross-border trade transactions among GMS countries, and with various regions of the globe. The outcome of the TA will be the acceleration and expansion of subregional cooperation in the with agriculture sector by promoting partnerships in priority areas identified by the WGA. The TA will help GMS countries to work together to reap the benefits of increased connectivity, enhanced competitiveness, and a greater sense of community.

B. Methodology and Key Activities

10. The TA will focus on developing and implementing programs and projects under the CASP. It will adopt a multi-stakeholder, participatory diagnosis and design approach. Partnerships will be established between GMS countries, FAO, International Fund for Agricultural Development (IFAD), and centers of excellence such as CGIAR centers—to facilitate the sharing of best practices, research results, and lessons learned. The TA will (i) provide opportunities for extensive training and consultations with GMS countries, development partners and other stakeholders; and (ii) coordinate with other GMS working groups⁹ to ensure that there is synergy among all sectors covered by GMS programs. In addition to specific activities identified under CASP, the TA will identify other activities for implementation for the next 5–10 years, which will be discussed and endorsed by the WGA. Wherever possible, the TA will also provide seed money for starting these activities and seek financial or technical support from other development partners.

⁶ Held at ADB headquarters in Manila, Philippines on 20–21 January 2003.

⁷ ADB. 2003. *Grant Assistance on Improving Poor Farmers' Income through Post Harvest Technology*. Manila (JFPR 9036-REG); ADB. 2004. *Grant Assistance on Improving Poor Farmers Income through ICT*. Manila (JFPR 9047-REG); ADB. 2004. Manila. *Technical Assistance on Control of Transboundary Animal Diseases in the GMS*. Manila (TA 6192-REG); ADB. 2004. *Technical Assistance on Strengthening the Greater Mekong Subregion Economic Cooperation Program*. Manila (TA 6186-REG); ADB. 2004. *Technical Assistance on Strengthening Capacity and Regional Cooperation in Advanced Agricultural Science and Technology in the Greater Mekong Subregion*. Manila (TA 6214-REG).

⁸ Held in Chiang Mai, Thailand on 22–23 March 2004.

⁹ GMS working groups on environment, trade facilitation, transport, and human resources development.

11. The TA will have the following components: (i) enhancement of coordination and communication among GMS countries, (ii) facilitation of cross-border agriculture trade and investment, and (iii) establishment of AINS and agri-knowledge platforms. For each of the components, the TA will provide opportunities—through WGA meetings and consultations—to strengthen active partnerships with private sector and other development partners for processing and implementation of other collaborative projects, and for implementing joint research activities.

- (i) **Enhancement of coordination and communication among GMS countries.** This will involve strengthening of institutional capacities by developing appropriate procedures and protocols among GMS countries for the implementation of WGA's programs and projects, particularly the CASP. It will support two annual meetings of WGA (WGA-4 in 2006 and WGA-5 in 2007) and one GMS agriculture ministers' meeting (in late 2006), and special studies¹⁰ to be identified during implementation. Other activities include (a) preparation of an operational manual, (b) establishment of communities of practice among GMS countries and development partners, and (c) conduct of training programs on specific subjects to be identified by WGA.
- (ii) **Facilitation of cross-border agriculture trade and investment.** This will involve (a) assessment of national and regional competitiveness on agricultural trade, (b) identification of priority agricultural trade products, (c) formulation and implementation of trade facilitation projects among GMS countries in collaboration with development partners, and (d) holding training programs and workshops. The initiatives will include studies on international sanitary and phytosanitary standards.
- (iii) **Establishment of AINS and agri-knowledge platforms.** This will involve (a) developing a web-enabled database and interface, (b) conducting training programs and consultation workshops for target users of AINS, (c) supporting improved data collection and compilation, (d) establishing protocols for data exchange standards and interoperability among GMS countries for improved information flows, and (e) facilitating the establishment of rural agri-knowledge platforms in each GMS country with regional and national technical hubs. Further details are in Appendix 2.

C. Cost and Financing

12. The total cost of the TA is estimated at \$1,000,000 equivalent. ADB will finance the equivalent of \$400,000 on a grant basis from ADB's TA funding program. The remaining equivalent of \$600,000 will be financed by the Government of the People's Republic of China, and administered by ADB. Detailed cost estimates and financing plan are in Appendix 3.

D. Implementation Arrangements

13. The Agriculture, Environment and Natural Resources Division of the Southeast Asia Department (SEAE) in ADB will be the Executing Agency for the TA, and it will establish a secretariat comprising core professional staff and secretarial service for implementing the TA activities. The secretariat will be responsible for preparing the summary reports and proceedings of the WGA and agriculture ministers meetings. GMS agriculture coordinators will, in consultation with relevant GMS national coordinators, continue to be responsible for

¹⁰ This will include assessment of biofuel as a source of rural energy.

(i) coordinating activities in the agriculture sector in GMS countries; and (ii) networking between WGA and development partners, and the private sector. The TA will be implemented over 2 years from July 2006 to June 2008 in collaboration with other GMS working groups. The progress and outputs of the TA will be shared with WGA members and, where appropriate, discussed at the annual meetings of the WGA.

14. Development of the AINS will be implemented by the Foreign Economic Cooperation Center of the PRC Ministry of Agriculture (PRC-FECC) in collaboration with relevant departments in the GMS countries.¹¹ The specifications for required hardware and software will be determined by PRC-FECC in consultation with other implementing agencies of the GMS and ADB. Procurement of equipment will be done in accordance with ADB's *Procurement Guidelines*, and will be facilitated by the respective AINS implementing departments in each GMS country through an advance payment facility provided by ADB. On completion of the TA, the equipment will be handed over to the implementing departments for continued use.

15. The TA will engage a total of 15 person-months of international and 50 person-months of national consulting services. The international specialists will comprise (i) regional coordination and communication specialist/team leader, (ii) agricultural trade strategy and facilitation specialist, and (iii) distributed data systems specialist. The national specialists will support the international specialists and their positions will be decided during implementation of the TA. Outline terms of reference for the consultants are in Appendix 4. Consultants will be engaged on an individual basis in accordance with *Guidelines for the Use of Consultants by Asian Development Bank and Its Borrowers* and other arrangements satisfactory to ADB for the engagement of national consultants. Where appropriate, the TA will also use technical resource persons and facilities available under other ongoing GMS regional TAs and, as far as is practicable, share information with them.

16. The WGA coordinators will submit regular quarterly reports on TA implementation and a separate quarterly report will be submitted by PRC-FECC on AINS. ADB will closely monitor the progress of TA implementation through quarterly progress reports on the project (submitted by consultant), and resolve any operational issues that may arise during implementation.

IV. THE PRESIDENT'S DECISION

17. The President, acting under the authority delegated by the Board, has approved (i) ADB administering a portion of technical assistance not exceeding the equivalent of \$600,000 to be financed on a grant basis by the Government of the People's Republic of China, and (ii) ADB providing the balance not exceeding the equivalent of \$400,000 on a grant basis for the Expansion of Subregional Cooperation in Agriculture in the Greater Mekong Subregion, and hereby reports this action to the Board.

¹¹ Initially identified as the Department of Planning Statistics and International Cooperation of the Ministry of Agriculture, Forestry and Fishery, Cambodia; Information Center, Ministry of Agriculture and Forestry, Lao PDR; Association of Southeast Asian Nations (ASEAN) Unit, Department of Agricultural Planning, Myanmar; Ministry of Agriculture and Cooperatives, Thailand; and Informatics Center, Ministry of Agriculture and Rural Development, Viet Nam. The cooperating agencies will be confirmed during the TA inception phase.

DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets/ Indicators	Data Sources/Reporting Mechanisms	Assumptions
<p>Impact</p> <p>Enhanced performance of agriculture sector in the Greater Mekong Subregion (GMS)</p>	<p>Accelerated expansion of GMS cooperation in agriculture</p> <p>Increased investments in commercial agriculture in the GMS region</p>	<p>Government's monitoring and evaluation system for the integrated socioeconomic development plan and the national growth and poverty reduction strategy</p> <p>Asian Development Bank (ADB) sector and economic reports</p> <p>Annual trade statistics</p>	<p>Assumption</p> <ul style="list-style-type: none"> • Commitment from GMS countries for subregional cooperation in agriculture
<p>Outcome</p> <p>Acceleration and expansion of GMS cooperation in the agriculture sector</p>	<p>Enhanced capacities for improved coordination and communication among GMS countries</p> <p>Increased cross-border agribusiness/agriculture trade transactions and investment</p> <p>Development of policies and programs for regional cooperation and competitiveness</p> <p>Increased demand for business development services from commercial agriculture enterprises in GMS countries</p> <p>Operational agriculture information network service (AINS)</p>	<p>Project generated quarterly progress reports</p> <p>Back-to-office reports (BTOR) of ADB review missions</p> <p>Meetings of GMS working group on agriculture (WGA) and GMS agriculture ministers</p> <p>Dialogue and consultations with key stakeholders, including the Food and Agriculture Organization (FAO) Regional Office for Asia and the Pacific, Consultative Group on International Agriculture Research (CGIAR) institutions, development partners, and the private sector</p>	<p>Assumptions</p> <ul style="list-style-type: none"> • Strong sense of ownership and continued commitment to GMS subregional cooperation prevails among GMS countries • Sustained and increased support from development partners and partner institutions, including the private sector, is assured • Association of Southeast Asian Nations (ASEAN) Free Trade Agreement rules are observed and trade is not hampered by nontariff barriers and rent-seeking at border crossings

Design Summary	Performance Targets/ Indicators	Data Sources/Reporting Mechanisms	Assumptions
<p>Outputs</p> <p>1. Enhanced capacities for improved coordination and communication among GMS countries</p> <p>2. Increased cross-border agriculture trade and investment</p> <p>3. Development of policies and programs for regional cooperation and competitiveness</p>	<p>WGA-4 and WGA-5 meetings convened, progress discussed, and issues resolved</p> <p>GMS agriculture ministers' meeting convened, and ministers' endorsement of the GMS strategic framework for subregional cooperation in agriculture</p> <p>GMS WGA endorsement and implementation of Core Agriculture Sector Program (CASP) action plans</p> <p>Establishment of a partnership between GMS countries, FAO, and CGIAR centers; and implementation of collaborative projects on GMS cross-border concerns, including workshops, conferences, and training programs</p> <p>CASP action plans receive funding support from ADB and other development partners for implementation</p> <p>Report on the assessment of national and regional competitiveness of agricultural products</p> <p>Agricultural trade products at national and regional level prioritized</p> <p>Increased agribusiness development services in the GMS countries</p> <p>Report on cluster analysis of agriculture firms and trade facilitation program</p> <p>Formulation and implementation of projects to facilitate trade development</p>	<p>Summary of proceedings of WGA meetings and exchanges of communications</p> <p>Summary of proceedings of ministerial meeting</p> <p>Quarterly project progress reports</p> <p>Quarterly progress reports from WGA coordinators</p> <p>Number of new projects financed by ADB and development partners</p> <p>BTORs of ADB review missions</p> <p>Quarterly project progress reports</p> <p>Quarterly progress reports from WGA coordinators</p> <p>Number of new projects financed by ADB and development partners</p> <p>BTORs of ADB review missions</p> <p>Quarterly project progress reports</p> <p>Quarterly progress reports from WGA coordinators</p>	<p>Assumptions</p> <ul style="list-style-type: none"> • Effective coordination, harmonization, and integration of subregional concerns in agriculture • Economic and political stability in the GMS countries • Effective coordination of implementation arrangements • Effective linkages and coordination with other existing databases and knowledge banks • Continued commitment from all stakeholders to support subregional cooperation initiatives in agriculture • Effective coordination of implementation arrangements

Design Summary	Performance Targets/ Indicators	Data Sources/Reporting Mechanisms	Assumptions
4. Operational AINS	<p>Consultant's completion report on agricultural trade strategy and facilitation</p> <p>Pilot AINS website and database made operational</p> <p>GMS country partners populate database with basic information</p> <p>National agencies regularly update the data</p> <p>Information on agriculture traded goods within GMS countries readily available</p>	<p>Number of new projects financed by ADB and development partners</p> <p>BTORs of ADB review missions</p> <p>Quarterly project progress reports</p> <p>Quarterly progress reports on AINS</p> <p>Web statistics</p> <p>Training records and workshop proceedings</p> <p>BTORs of ADB review missions</p>	
<p>Activities with Milestones</p> <p>1.1 Planning and convening the GMS WGA-4 meeting (October 2006)</p> <p>1.2 Planning and convening the GMS WGA-5 meeting (October 2007)</p> <p>1.3 Planning and convening the GMS Agriculture Ministers' Meeting (October 2006)</p> <p>1.4 Identify special studies for implementation (December 2007)</p> <p>1.5 Establish communities of practice (June 2007)</p> <p>1.6 Conduct training programs and workshops (June 2008)</p> <p>2.1 Assessment of national and regional competitive strategy (March 2007)</p> <p>2.2 Identification of priority agricultural trade products (June 2007)</p> <p>2.3 Development of trade facilitation programs (June 2007)</p> <p>2.4 Conduct training programs and workshops (June 2008)</p> <p>3.1 Implementation of prototype web enabled database and interface as basic tools for AINS (October 2006)</p> <p>3.2 Conduct training workshop for GMS country focal points on provision of content for AINS (April 2007)</p> <p>3.3 Populate prototype database (April–July 2007)</p> <p>3.4 Conduct training programs and workshops (June 2008)</p>			<p>Inputs</p> <ul style="list-style-type: none"> • ADB: \$400,000 • People's Republic of China: \$600,000 <p>International Consultants</p> <ul style="list-style-type: none"> • Regional coordination and communication specialist: 8 person-months • Distributed data systems specialist: 2 person-months • Agricultural trade strategy and facilitation specialist: 5 person-months <p>National Consultants</p> <ul style="list-style-type: none"> • AINS: 5 person-months • Others: 45 person-months

GREATER MEKONG SUBREGION AGRICULTURAL INFORMATION NETWORK SERVICE

A. Introduction

1. The need for improved systems for capturing and making relevant agriculture-related information widely available in the GMS countries was identified as a priority issue during the second meeting of the working group on agriculture (WGA).¹ In response, the Ministry of Agriculture of the People's Republic of China (PRC), in cooperation with the Asian Development Bank (ADB), held a workshop² on agricultural information networks to (i) exchange information on existing agricultural information networks in GMS countries; (ii) discuss the development and operation of the proposed GMS agriculture information networks service (AINS); (iii) discuss the framework, function, and modules for a website to support the proposed AINS; and (iv) develop and finalize the work plan for building and piloting the AINS website.

2. Country presentations at the AINS workshop revealed a wide disparity in information and communications technology development between the GMS member countries. Notwithstanding these differences, delegates acknowledged the potential benefits that would be obtained through improved information sharing and electronic trade in agriculture and value-added agricultural products that could be facilitated by the development of a common agricultural website. Based on the workshop discussions, an outline specification for the AINS website, draft work plans, and budgets were developed. In view of the different stages of information and communications technology development among GMS member countries, the Information Center, Ministry of Agriculture, PRC accepted the request to lead the development of the AINS and host the prototype website.

B. Outline Specification of AINS

3. The objective of AINS is to provide up-to-date information on agriculture in the GMS³ to support increased exchange of information and to foster increased intraregional trade of agricultural produce and value-added products. In line with the focus of the WGA, the information will concentrate on crop production, livestock, fishery, and forestry. In the initial phase the website is conceived with eight main information "columns": (i) news; (ii) GMS background information; (iii) news and information on the WGA program and activities; (iv) agricultural policy, legislation, and new developments in GMS; (v) agricultural technology, (vi) information on cooperation projects and activities in GMS; (vii) information for agricultural traders and merchants on supply and demand within GMS; and (viii) information exchange forum. The website, developed using open-source software, will at first include only two user interfaces: (i) a public website with information accessible to any interested users, and (ii) a secure user authentication system to manage access to data entry and site management pages.

4. Initial development and testing of the prototype AINS website will be led by the Information Center, Ministry of Agriculture, PRC. However, provision, updating, and management of website content will be a distributed responsibility, shared by agencies in each GMS country. To further ensure the sustainability and continued relevance of information available through the AINS website, participating agencies will develop cost-sharing and service

¹ WGA-2 was held in Chiang Mai, Thailand on 22–23 March 2004.

² The AINS workshop was held in Beijing, PRC on 7–9 December 2004.

³ The GMS comprises Cambodia, Lao People's Democratic Republic, Thailand, Viet Nam, and People's Republic of China (Yunnan and Guangxi Provinces, although other provinces in the People's Republic of China may provide information where the agro-climate conditions are similar to elsewhere in GMS).

charge policies during the proposed 4-year development, pilot test, and dissemination period, for which ADB support is sought. A step-by-step introduction of cost-recovery is proposed as the AINS proves its value to the agricultural community in GMS, through improved research and increased intraregional trade in agriculture produce and products.

5. To ensure that information provided through AINS remains up-to-date and readily accessible to end users in each GMS member country, the provision of multilingual interfaces, use of distributed web servers, and interoperability with other data services will be investigated for implementation during the pilot and dissemination phase.

C. Initial AINS Development Plan

6. The 2004 AINS workshop (footnote 2) participants agreed a 4-year development, pilot testing, and dissemination phase to implement AINS, which is summarized as follows:

- (i) 2005: Establish data standards and structure of database; develop website and related software; organize and implement training courses and workshops in GMS countries; begin information accessions to database and publish through AINS website; begin development of e-commerce system.
- (ii) 2006: Begin distributed information collection, sorting, analysis, and data entry among GMS member countries, using unified information exchange standards and data structures.
- (iii) 2007: Implement AINS membership systems and develop policies for information exchange.
- (iv) 2008: Implement full electronic business service for GMS agricultural produce through AINS website.

7. The resources required to implement this development program were estimated at \$1.3 million, for which ADB financing of \$800,000 was initially proposed, with additional funding to be provided by GMS countries.

D. Current Status of AINS development (March 2006)

8. An application for ADB funding was not made during 2005 but the Information Center of the Ministry of Agriculture, PRC initiated design and development of the AINS website, with funding provided by the Government of the PRC—leading to registration of the AINS domain and a pilot release of the website⁴ in 2005. The prototype site includes the elements agreed during the AINS workshop (footnote 2), although the site content is provided mainly by organizations from the PRC. Furthermore, the main page of the interface includes template entries for parallel sites in each of the GMS languages, but only the main English language interface has been developed. The Foreign and Economic Cooperation Center, PRC hosted an AINS training workshop for GMS country focal points to enable remote information uploads by member countries.

9. The pilot AINS website has achieved only a relatively slow rate of upload of content by member countries. This is thought to be due in part to the interface being currently limited to English language. But, it is also noted that information networks with distributed data entry have been observed to suffer from three major problems: access to adequate infrastructure to provide

⁴ The AINS pilot website can be accessed at <http://www.gms-ain.org/> (as of 31 March 2006).

acceptable connectivity and bandwidth, uncertainty regarding use of content and organizational constraints in host institutions.

E. Future Development

10. The technical assistance (TA) will assist the emerging AINS program to overcome the issues outlined above by (i) establishing AINS servers in each GMS country; (ii) providing additional training for national focal points and leaders of host organizations; (iii) making a formal release of the AINS website during the meeting of GMS agricultural ministers, scheduled for October 2006 in Beijing; (iv) supporting short-term studies in each GMS country to collate and upload information to populate the AINS database; (v) providing short-term consultant support to assist introduce interoperability of the AINS interface with other existing agricultural information services; and (vi) further development and promotion of e-commerce sections of AINS website.

11. Specific activities to be financed under the TA will include the following.

- (i) Purchase of necessary equipment: servers, network hardware.
- (ii) Development of two additional modules, i.e. enterprise information.
- (iii) Conduct of workshop on decision responsibilities of units and focal points to establish and formalize working mechanisms and procedures.
- (iv) A training course on information networking.
- (v) The formal launching of AINS, which may be timed during the proposed agriculture ministers' meeting in 2006.
- (vi) Promotion of the GMS website, web content development and dissemination.
- (vii) Annual summit on network achievements and discussion of the 2007 annual working plan.

COST ESTIMATES AND FINANCING PLAN
(\$'000)

Item	Cost
A. Asian Development Bank (ADB) Financing	
1. Consultants (International)	
a. Remuneration and Per Diem	300.0
b. International and Local Travel	25.0
c. Reports and Communications	5.0
2. Meetings and Workshops ^a	40.0
3. Miscellaneous Administration and Costs	10.0
4. Contingencies	20.0
Subtotal	400.0
B. Government of the Peoples' Republic of China^b	
1. Consultants (National)	
a. Remuneration and Per Diem	150.0
b. International and Local Travel	40.0
c. Reports and Communications	10.0
2. Meetings, Seminars, Workshops, and Trainings ^c	160.0
3. Field Surveys	10.0
4. Special Studies	30.0
5. Computer Hardware and Software for AINS	120.0
6. Miscellaneous Administration and Costs	20.0
7. Contingencies	60.0
Subtotal	600.0
Total	1,000.0

AINS = agriculture information network service

^a Working Group on Agriculture (WGA-4) meeting.

^b Administered by ADB.

^c Fifty percent of this estimate will be used by AINS.

Source: ADB estimates.

OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

A. International Consultants

1. **Regional Coordination and Communication Specialist** (8 person-months, intermittent). The specialist will be a graduate in social sciences with postgraduate training, and report writing, organizational, and leadership skills. The person will have extensive experience in (i) Greater Mekong Subregion (GMS) countries, and with intergovernmental agencies, such as the Association of Southeast Asian Nations (ASEAN), Consultative Group on International Agriculture Research (CGIAR), and Food and Agriculture Organization (FAO); (ii) agriculture and rural development; (iii) facilitation of institutional, social, and electronic networks; and (iv) program and project management.

2. The specialist will have the following tasks.

- (i) Provide GMS countries with necessary technical and advisory support for activities and discussions related to the working group on agriculture (WGA). This will include reviewing the WGA's annual work programs as well as design and implementation of selected priority activities of the core agriculture sector program (CASP).
- (ii) Organize consultations and facilitate dialogue among GMS countries and other key stakeholders—including development partners and the private sector—on various issues and concerns relating to agricultural subregional cooperation.
- (iii) Plan and coordinate the implementation of WGA-4 and WGA-5 meetings and the agriculture ministers' meeting.
- (iv) Organize and conduct training programs and seminars on priority subregional issues and facilitate other WGA meetings and high-level dialogue, including the GMS agriculture ministers' meeting.
- (v) Promote dissemination, sharing, and reuse of applied research results among GMS countries in coordination with the relevant national research institutes and the CGIAR institutions.
- (vi) Assist in facilitating the establishment of a community of practice among WGA coordinators and partner agencies.
- (vii) Coordinate with other ongoing programs on transboundary animal diseases and make recommendations for further assistance through the CASP.
- (viii) Develop a program for early warning systems and emergency preparedness on agriculture related emergencies in consultation with other development partners.
- (ix) Provide guidance to national consultants in the facilitation of networking among WGA coordinators and partner agencies.
- (x) Guide and assist the development and documentation of work flows that will eventually translate into WGA procedures and protocols.
- (xi) Organize and facilitate WGA seminars and workshops including the preparation of related multimedia presentations.
- (xii) Ensure that agriculture information network service (AINS) website contains updated information relevant to the (GMS) countries.
- (xiii) Assist in the development of partnership and in formulation action plans for implementing CASP.
- (xiv) Prepare detailed concept papers, proposals for priority initiatives, and issues and background papers for WGA meetings, seminars, and workshops.
- (xv) Prepare a draft operations manual for a GMS WGA secretariat.

- (xvi) Submit reports on meetings of the WGA and agriculture ministers, other relevant reports identified during the implementation of the technical assistance (TA), and a final report on the TA activities.

3. **Distributed Data Systems Specialist** (2 person-months, continuous). The specialist will be a graduate with postgraduate training in database and database management and will have (i) extensive experience in the design and development of distributed data management and information systems, including interoperability between platforms; (ii) experience in the design and development of multilingual interfaces; and (iii) strong report writing, organizational, and leadership skills.

4. The specialist will do the following.

- (i) Provide the GMS countries with necessary technical and advisory support for development of a distributed, multi-language database and information system.
- (ii) Advise the AINS development team on interoperability concepts, use of XML and data dictionaries such as AGROVOCS.
- (iii) Advise the development team on the design of multilingual interfaces for data entry, query, and retrieval services from AINS.
- (iv) Advise the development team on information security issues in distributed data systems.
- (v) Submit a comprehensive report on distributed data systems.

5. **Agricultural Trade Strategy and Facilitation Specialist** (5 person-months, intermittent). The specialist will have a degree in agricultural economics and/or marketing with postgraduate training and will have (i) extensive experience in agricultural trade in developing countries, particularly GMS countries; (ii) extensive experience developing national and regional competitive strategies; and (iii) strong report writing, organizational, and leadership skills.

6. The specialist will do the following.

- (i) Analyze policy instruments in place in GMS countries to facilitate agriculture trade and address market access, and the effectiveness of their implementation.
- (ii) Identify capacity gaps and needs for agricultural trade, based on the above, and submit a report on national and regional (GMS) strategies. The report will include recommendations for capacity building, institutional reforms, and regional integration.
- (iii) Undertake comparative and competitive analysis using value chains; identify priority agricultural trade products at the subregional and regional levels; and develop competitive strategies for increasing their trade.
- (iv) Undertake cluster analysis and identify clusters of agricultural firms across GMS countries with common competitive strategies and needs; and develop programs trade facilitation including training programs.
- (v) Document experiences including success stories, good practices, and lessons learned on inter- and intraregional trade.
- (vi) Analyze and recommend ways to facilitate increased global and regional demand for GMS agricultural products.
- (vii) Identify issues that require further studies with appropriate terms of reference.
- (viii) Submit a comprehensive report on national and regional agricultural trade strategy and facilitation.

B. National Consultants (50 person-months)

7. National consultants will do the following.

- (i) Undertake national studies and related activities that will feed into subregional proposals and initiatives.
- (ii) Work in coordination with the WGA focal points and the international consultant and take primary responsibility to help implement the national subcomponents of subregional activities.
- (iii) Engage the participation of stakeholders in the GMS WGA community of practice.
- (iv) Assist WGA focal points to implement activities initiated by the international consultant.
- (v) Provide support to ADB secretariat.

8. The required expertise will depend on the priority studies identified. National consultants should be nationally recognized as experts in their fields and have extensive experience working in agriculture and agro-industries in the GMS and in regional cooperation programs. They should be proficient in reading and writing in English and have strong report-writing skills.