

**Aide Memoire
1-8 December 2011**

**Loan 2283-VIE(SF): Agriculture Science and
Technology Project
- Loan Review Mission**



ASIAN DEVELOPMENT BANK
Loan No. 2283-VIE (SF): Agriculture Science and Technology Project
Aide Memoire of the Loan Review Mission
(30 November - 8 December 2011)

I. INTRODUCTION

1. From 1-8 December 2011, the Asian Development Bank (ADB) fielded a Loan Review Mission¹ to Viet Nam to review the implementation of Loan No. 2283-VIE (SF): Agriculture Science and Technology Project (The Project). The Mission conducted comprehensive discussions with the Ministry of Agriculture and Rural Development (MARD) — the Executing Agency (EA) — its Department of Organization and Personnel (DOP), Department of Science, Technology and Environment (DSTE), the National Agricultural and Extension Center (NAEC), and the Institute Project Management Units (IPMU) of Northern College of Agriculture and Rural Development, Field Crop Research Institute, and Northern Water Resources College.

2. The Mission (i) reviewed the implementation of the four components and updated the project implementation schedule accordingly; (ii) followed up on development of a standard reporting system for financial income arising from laboratory services and its utilization for sustainable maintenance and upgrading of equipment beyond the Project period; (iii) discussed progress on implementation of the Monitoring and Evaluation System for all Project components; organisation of baseline information and performance indicators developed for research and extension activities; (iv) reviewed progress on selection of research project for farmer-managed on-farm trials; (v) reviewed reallocation of loan proceeds and contracts awarded and disbursement projections for 2012; (vi) reviewed status of remaining draft bidding documents for the procurement of small-scale civil works and goods of remaining research institutes and schools; (vii) held joint discussions with ADB reconnaissance mission on the proposed Low Carbon Agriculture Support Project for 2012; and (viii) reviewed the Borrower's compliance with the loan covenants.

3. The Mission concluded with a wrap-up meeting on 8 December 2011 in Hanoi, chaired by Mr. Nguyen Van Vinh, Deputy Director General of APMB, and attended by staff of MARD and representatives of other government agencies/organizations/stakeholders. A list of persons met and those present at the wrap-up meeting is shown in Appendix 1.

4. This Aide Memoire records the findings of the Mission, and agreements reached between representatives of the Government and the Mission. Agreements reflected herein are subject to approval by higher authorities of the Government and ADB. The Government's confirmation of the Aide-Memoire is requested by 15 January 2012.

II. BACKGROUND

5. ADB approved the Loan on 11 December 2006 for SDR 20.198 million (US\$30 million equivalent) from ADB's Special Funds resources. The Loan Agreement became effective on 13 June 2007 and the last loan review mission was fielded in April 2011.

6. The Project aims to strengthen the national agriculture science and technology (AST) system in Viet Nam, thereby contributing to the sustainable and equitable growth of the

¹ The Mission comprised of Dr Sununtar Setboonsarng (Mission Leader) and Eileen Quisumbing-Battung (Associate Project Analyst).

agriculture sector and ultimately to reduce rural poverty. The Project addresses critical issues involved in AST development, including the low level of linkages among key AST areas (agricultural research, extension, and training), and the gap in the capacity of physical and human resources for the national AST system. The Project contributes to the resolution of these issues and increase the effectiveness and relevance of AST activities for clients to receive benefits of improved AST, and promote on-farm and off-farm sustainable use of natural resources. Inclusion of the three key AST areas under the Project as part of the integrated national system is vital if the full potential of AST development is to be realized. The Project has four components, namely: (i) client-oriented agricultural research and capacity strengthening; (ii) grassroots agricultural extension improvement; (iii) rural-based technical and vocational training; and (iv) project management.

7. On 10 December 2010, ADB approved the Government's request to extend the loan from 30 June 2012 to 30 June 2013 to allow: (i) some Ph.D. candidates to complete their studies before the proposed loan closing date; (ii) more time for transferring research results into the extension and preparation of about 30 training programs and curriculum revision so that the project impact would be maximized; and (iii) extract lessons in adoption of market mechanism in financing research and extension systems for public sector management.

8. Commensurate with the extension of the Loan, a number of consultants under the Project have been extended to support Project completion and additional consultants have been added to complete specific tasks in 2012. These changes received a no objection from ADB on 26 July 2011. The last review mission of the Project was fielded in April 2011.

III. REVIEW OF PROJECT IMPLEMENTATION

A. Overall Progress

9. As of 31 October 2011, the overall progress of the Project is estimated at 88.17% (Appendix 2) against the elapsed time of 74% since loan effectiveness. Despite the difficulties faced during the first 1.5 years of the project, significant progress has been noted since the last quarter of 2009. Implementation progress for each Project component is as follows: Component 1: client-oriented agricultural research and capacity strengthening, 88.59%; Component 2: grassroots agricultural extension improvement, 88.72 %; Component 3: rural-based technical and vocational training, 89.23%; and Component 4: project management, 83%. As of 31 October 2011, contract awards and disbursement achieved 81% and 113% of the 2011 projections respectively, showing improved effectiveness in Project implementation. With an exception of activities on overseas degree training, Project activities in most project components will be completed by June 2012, based on the original implementation schedule.

10. The Project has no major implementation problems but fine tuning particularly in the areas of project monitoring system, quality assurance, and compliance to environmental and social safeguard including gender mainstreaming is required to enable the Project to achieve its full potential. Implementation problems up to 2009 in Dak Nong Province, were resolved in 2010 and steady progress has been made in 2010 and 2011. Counterpart funds are adequate from MARD and from all five provinces.

11. Significantly, with a relatively small investment in the past four years, the Project has contributed effectively to strengthen the national science and technology research, development and extension system for the agriculture sector of Viet Nam, leading to more equitable and sustainable growth. Under the Project, the competitive bidding process for awarding research

and extension contracts has been effectively introduced, resulting in improved public expenditure management on agriculture research and extension through participation of a wide range of service providers. Research projects were implemented largely in poor remote regions in collaboration with staff of District extension stations and farmers have resulted in more relevant research outputs with promising results for further extension to farmers. Notably, the bottom-up, participatory approach in extension activities has been effectively adopted by the PPMUs resulting in the Project achieving high outreach to impoverished marginal regions, particularly indigenous communities. Capacity building for vocational schools and colleges, which until now has not been the focus of foreign-assisted projects, has proven to be highly beneficial to staff and students. Training of research staff, including overseas degree and non-degree programs, short-term domestic training courses and study tours have contributed to the strengthening of technical and management capacity and have facilitated networking among researchers.

12. An overall impact evaluation study was carried out on the Project from end of 2010 to early 2011 and the final report was completed in May 2011. The study found a number of benefits associated with new processes and mechanisms introduced through the AST Project including competitive bidding for research projects, agricultural extension service contracts and introduction of new teaching methods and new curricula development for vocational schools. The research projects were found to be more effective in poverty focused with improved collaboration with extension services. The extension contracts were found to be more effective in addressing the needs of the poor and indigenous people in marginal areas. Impacts of short-term domestic training courses for staff of research institutes found that the majority of trainees demonstrated sustained improvement in productivity and effectiveness in their work place following the training. The study also identified some shortcomings, a number of which have been addressed in subsequent Project activities. For example additional training programs focusing on climate change have been conducted for staff of participating research institutes, extension centers, and staff developing new curricula and training materials. The results of the impact evaluation study were presented in a workshop chaired by Vice-minister of the MARD and lessons were used in scaling up the implementation of nation-wide transformation program. In addition to overall impact evaluation study, additional in-depth impact studies on the economic and financial returns to investment including the extent of public expenditure saving by the AST along with evaluation on the utilization of equipment procured by research institutes and schools are on-going. The reports on impact of the AST Project and equipment utilization will be available in January 2012 and April 2012, respectively.

B. Progress of Project Implementation

13. The Mission reviewed the progress under each of the components and discussed the timetable for planning and implementation of various activities for the remainder of the Project. A revised implementation schedule is attached in Appendix 3.

(i) Component 1: Client-Oriented Agricultural Research and Capacity Strengthening

14. Client-Oriented Research Programs. The Project promotes agricultural research programs and timely application of research results to clients' practical uses. Research proposals focusing on knowledge, information, and technologies relevant to the agro ecological regions serviced by regional research institutes are funded under the Project. DSTE continues to oversee activities under this sub-component.

15. The 125 research projects (58 projects in the first batch and 67 in the second batch) are scheduled to be completed by 31 December 2011. As of 31 October 2011, 96 projects (80%) achieved between 80 and 90% of their 2011 work plan. Total disbursement for research projects reached on November 2011 is VND 83.56 billion (91%). The remaining capital expected to be disbursed in 2012 is VND 8.63 billion.

16. Projects in the first batch were reviewed by independent experts in 2010 and recommendations were implemented to improve their projects. Projects in the second batch were reviewed in a workshop on 25-26 April 2011 in Da Nang and found that all research projects are conducted with the cooperation of agricultural extension staff and local farmers. As of 31 October 2011, 4,972 households have participated in the research projects, 58% of which were female-headed households and 42% were ethnic minority households. To date, a total of 10,183 farmers and 1,171 extension staff have participated in training courses conducted as part of the research projects. Sixty-eight percent of the participants in training were women farmers. Of the 125 research projects, about 38% address environmental issues, safe food production and climate change mitigation and adaptation, focusing on topics including: soil erosion control, land reclamation, agro-chemical management, biodiversity conservation, organic farming and VietGAP. The research projects have been largely implemented on schedule, with many demonstrating promising results.

17. Findings and Recommendations:

- Of the 125 research projects supported under the Project, 79 are being proposed by researchers for further testing under farmer-managed on-farm trials where researchers will only be providing technical supports but not farm inputs support. The Committee will meet to review this in mid-December 2011 to evaluate their suitability and attractiveness for further testing in 2012. Only projects that completed trials in farmers' fields are eligible for consideration for extension.
- As at 31 October 2011, 263 new production models had been implemented for 125 research projects. Estimates of productivity improvements available so far ranges between 10%-15% compared to control models (current technologies and practices). Estimates of improvements in net profits also range from 10-15%. Projects which do not have a productivity improvement objective, such as those addressing social and environmental matters, will report on achievements based on project objectives.
- Data on impacts of the adoption of research results on household income are available for 16 research projects. Household income increased by 10-15% for five projects, by 15-20% for five projects, and by 20-30% for six projects. All 125 client-oriented research projects will measure impacts on household income from adoption of research outputs and will be reported in the final project reports.
- The second batch research projects were reviewed at a workshop on 25-26 April in Da Nang. Most of the projects were conducted in accordance with their approved plan and schedule. Good collaboration with Departments of Agriculture and Rural Development and/or Provincial and District Agricultural Extension agencies has resulted in effective implementation and monitoring of the research projects. Initial research results are promising with most project outputs suitable for poor farmers. Of the 67 projects, 26 were assessed as 'good' by local science

committees with the rest achieving a 'satisfactory' assessment. All 125 research projects will be subjected independent to review following their completion.

- Many research projects conducted research trials in farmers' fields with supervision by researchers and all inputs funded by the project. To further verify the viability of the technologies, farmer-managed on-farm trials for selected projects will be conducted in 2012.
- Since impacts of research projects generally become visible or measurable years after the research project completion. There is a need to ensure that successful research projects be monitored beyond the AST project period. In this regard, the Mission requested CPMU to work with DSTE to transfer the central database of baseline and impacts of research projects to DSTE so that medium and long-term impacts could be monitored beyond the AST project period.

18. **Training of Research Staff.** The subcomponent addresses the shortage of qualified research staff by providing short-term on-the-job training and postgraduate and postdoctoral study programs for the staff of agricultural research institutes and other institutions of the national AST system. The on-the-job training will enable staff to more effectively utilize existing laboratory equipment and facilities and that procured under the Project, and improve their knowledge and skills to manage sophisticated facilities. DOP continues to oversee activities under this sub-component.

19. **Overseas Training.** The AST Project target to support 55 candidates to study abroad for post graduate degrees has been exceeded with 57 candidates selected. Savings on tuition fees were used to support two additional candidates who commenced their degree programs in 2011. Of the 57 candidates 26 are studying in Australia, 7 in the United States, 6 in Germany, 5 in the Netherlands, 3 in Japan, 5 in Thailand, 1 in Sweden, 1 in Denmark, 1 in UK, 1 in India, and 1 in Norway. Overall, women represent almost 26% of the total candidates (Table 6 Appendix 1). Fourteen Masters degree candidates have completed their programs and have returned to their respective institutes to apply the new knowledge gained in their studies. Two candidates for PhD degrees have withdrawn one for health reasons and the other due to language difficulties and both have returned to work in their institutes. With the extension of the project, all remaining students will be able to complete their studies within the Project period.

20. Findings and Recommendations

- Overall progress of this component has been satisfactory. The three post-docs have completed their overseas programs and are now working in their institutes. A total of 17 (30%) of candidates have successfully completed their overseas study program. An impact assessment study on overseas training is on-going to assess net benefits and rate of return to investment in post-doctoral and post-graduate study programs under the AST.
- There is a concern that some PhD student may not be able to complete their studies within the Project period. The Mission recommends that PhD students be reminded to choose research methodology or design of their dissertation which will allow them to complete their studies within period of the Project. Otherwise, they will need to finance themselves to complete their studies.

- Two short overseas training courses were implemented in Taiwan August 2011. Two separate groups of 30 persons each comprising representatives of Project Research Institutes, Project Schools and PPMUs attended the courses on climate change adaptation in agriculture and on organic agriculture. Overall feedback from participants indicated that the courses provided information and methods that can be applied in Viet Nam in research, extension and vocational training. The Mission recommends the CPMU to continue to monitor impacts and report their improved performance of participants who attended the courses.
- Improved collaborations with overseas research institutes are becoming visible. From late June to early July 2011, two researchers from the Plant Protection Research Institute attended a training workshop in Taiwan on 'Rapid Bioassay of Pesticide Residues on Fruits and Vegetables for Market Inspection and Farm Education' in Taiwan. They were sponsored by the Taiwan Agricultural Council, as an outcome of discussions with the Project Director during the Agricultural Extension Study Tour to Taiwan in April 2011.

21. **Local Training.** The activities in this sub-component were largely completed in November 2011. A total of 48 training courses have been conducted by the CPMU with coordination provided by Vietnam Academy of Agricultural Sciences (VAAS) with 1,467 participants, of which 47% were women. This exceeds the target participation level by more than 200 persons, although the number of courses was just two less than the target of 50. Overall assessment of the training courses by participants has been high with the majority indicating that course content met their needs (median assessment for 2010 courses was 96% and 91% for 2011 courses) and that they would be able to apply what they had learnt in their work place (median assessment for 2010 courses was 75% and 82% for 2011 courses). Of the 48 courses, post evaluation was conducted on 40 short-term training courses conducted from 2008 to 2010. Post-course assessments were sought from trainees and their managers or supervisors six months or more after attending the training course. Individual questionnaires were sent to 578 trainees from 17 institutes including staff from the 10 institutes participating in the AST Project. Responses were received from 442 trainees which is equivalent to a 77% response rate. As a number of the trainees attended more than one training course a total of 545 individual responses were received, from a total of 770 sent out (71% response rate from trainees). Responses were received from 418 managers or supervisors of the trainees, which is a 54% response rate. Trainees considered that all 17 training course topics were relevant to their individual needs whereas the managers considered that 16 were relevant to the needs of the institute. They considered that the course on macro-economic modeling was not relevant. The trainees assessed that 16 of the 17 courses met more than 70% of their needs while the managers' assessments were that 12 courses met greater than 70% of needs. The majority of trainees were able to apply the skills learnt during training, and in most cases they could apply between 50 and 90% of the skills taught. For two courses they were able to implement less than 50% of the skills taught at the course (website design and GIS for environmental impact assessment). Managers' assessments concurred with those of the trainees. A majority of trainees indicated an increase in their work effectiveness and the quality of their output with two exceptions – website design and macro-economic modeling. Managers indicated that trained staff demonstrated increased effectiveness for 10 of the 17 courses and improved work quality for 12 of the courses. With the exception of the macro-economic modeling course all trainees considered that their work attitude had improved since the training. Managers assessed that trainee's attitudes had improved in all but two course areas – GIS methods and macro-economic modeling. Almost 80% of the trainees indicated that they had shared their knowledge and skills from the training with an average of 6 other work colleagues. The majority of training

courses aligned with the needs of individuals and their research institutes with three exceptions. These were technical topics requiring a specific level of pre-existing knowledge and experience. It is likely that for these courses the attending trainees did not meet these pre-requisites and found the material challenging and difficult to apply.

22. Findings and Recommendations:

- Overall implementation of this sub-component by VAAS has been highly satisfactory. The Mission is pleased that a post-course evaluation has been conducted. The results show that majority of the training courses have delivered positive and sustained results for the individuals and institutes in line with their training needs.
- Lessons show that pre-requisites requirements for participants and course contents be made clear in the course announcement to ensure appropriate participants and effective learning.
- To support the MARD in the implementation of Decree 115 and given the need to enhance knowledge and skills on climate change related research in agriculture, the Mission proposed to allocate additional funds to conduct training courses on research proposal writing, carbon accounting, life-cycle analysis of green house gas emission, CDM related methodologies and analysis, and other relevant courses. Distant learning modalities should be explored by VAAS in reaching large number of researchers in research institutes in remote areas. An example of a successful distant learning course in microfinance which can be found at URL: <http://www.adbi.org/files/2006.06.dp50.microfinance.tot.pdf>.

23. **Upgrading of Research and Laboratory Equipment.** The Project is providing and upgrading essential research and laboratory equipment of selected MARD agricultural research institutes to fill critical gaps in research due to outdated equipment. DSTE continues to oversee activities under this sub-component.

24. Total procurement packages for this sub-component is 46 (33 original and an additional of 13 approved by ADB in September 2010). Thirty-six procurement packages have been awarded, 33 of these contracts have been installed as of 31 October 2011, and bidding are ongoing for the remaining packages. Equipment installation and necessary training are expected to be completed in Q2 of 2012. A summary of the status of the procurement of packages for Institutes can be found in Appendix 5. A checklist for environmental safeguard for safe disposal of toxic waste from equipment has been developed by the Project.

25. A summary of the ADB environmental safeguards policy and the Project environmental management plan (EMP) were sent to all 25 participating project management units and research project leaders. The checklist for Rapid Environmental Assessment on safe discharge of waste from laboratory equipment has been provided to all institutes/schools for their use.

26. Findings and Recommendations:

- In response to a recommendation of the review mission in April 2011, an evaluation of on effectiveness of utilization and maintenance of equipment procured by Institutes and Schools is on-going. A questionnaire was sent out to

gather information to evaluate the financial and economic returns to the investment in equipment. Institutes have been asked to provide estimates of the expected number of analytical services and earnings from external clients made possible by the new equipment. Institutes also were asked to provide costs for operating and maintenance of the new equipment. The outputs of the evaluation study are expected in April 2012.

- Monitoring of utilization and maintenance of equipment and compliance to environmental regulations of the Government and ADB environmental safeguards could be further improved in the remaining period of the Project. By sending the checklist to the research institutes and school without follow up activities is not an effective measure on the part of the CPMU.
- The Mission recommends that for new equipment to be purchased, the procurement proposal is to include maintenance plan and environmental management plan showing how environmental safeguards and regulations will be met. Since it may not be practical to assess environmental compliance for each individual item of equipment, the plan of activities could be drawn based on a whole laboratory or facility basis to be submitted with the procurement proposal. This should include an assessment of current environmental management practices and procedures applied by the organization and details on changes that will be implemented.
- The Mission reviewed the bid evaluation report and draft contract for the Cuu Long Delta Rice Research Institute and have found these in order. The Mission has no objection to the Bid Evaluation Committee's recommendation to award Package No. 5: Portable Photosynthesis System, Laboratory Tables & Chairs, and Chemicals & Glasswares to the lowest evaluated substantially responsive bid, Joint venture between the Scientific and Technological Equipment Kim Ngan and Joint Stock Co on Scientific and Bio-technological Logistics Biomedic, amounting to VND917,750,000. The Mission requested that a copy of the signed contract be sent to ADB as soon as this is available.

(ii) Component 2. Grassroots Agricultural Extension Improvement

27. The Project is improving farmers' access to participatory and pro-poor extension services and is strengthening linkages between agricultural research and extension services. Activities are being implemented in Dak Nong, Nghe An, Ninh Thuan, Quang Nam, and Thanh Hoa provinces. NAEC continues to oversee activities under this component.

28. Pro-poor Provincial Agricultural Extension Services. This sub-component provides (i) ongoing technical training programs for local extension staff and farmer groups; and (ii) procurement of basic equipment and provision of support for incremental costs of the information and communication capacity and networks of NAEC, provincial agriculture extension centers, and district stations for agricultural extension.

29. Extension activities are on-going in all five provinces. Implementation progress in four provinces remains on track based on revised implementation plans. Progress in Dak Nong improved significantly in 2010 and based on implementation progress in 2011, a plan to allocate more funds for 2012 to catch up with the delays in 2008 and 2009 will be considered.

30. A total of forty-five extension staff from five provinces have participated in the Training of Trainer (TOT) program. Only 4 of the TOT members are female, equivalent to 9%. A total of 888 training courses have been conducted for 22,489 extension personnel, including extension service providers. Of the 17,994 extension staff trained at the sub-district level, 24% were female and 34% were ethnic minorities. Ninety-eight training courses have been organized for service providers since 2008 with 2486 participants of which almost 29% were female. Since 2008, 65 courses were organized for 1600 provincial and district extension workers with 31% female participants. Female extension staff in the provinces ranges from 30-35%. In 2011 NAEC conducted 18 training courses for 452 provincial extension staff in which women participants were 37.6%.

31. Networks of exchange for extension workers have been established through overseas study tours to Thailand (December 2008) and Taiwan (April 2011) and 16 in-country visits organized by 5 provinces—Thanh Hoa (3), Ninh Thuan (3), Quang Nam (4), Nghe An (5) and Dak Nong (1) for staff of the PPMU, extension centers and extension service agencies totaling 197 people at 31 October 2011. Training on extension M&E was organized for all project provinces in Thanh Hoa in July, 2011 with a total of 20 project /extension staff (25% Female.)

32. CPMU and NAEC developed a communication program to use mass media in five provinces to disseminate information on subjects related to sustainable and equitable agriculture development. As of November 2011, a total of 20 programs were developed and broadcast on Radio and TV station.

33. Findings and Recommendations:

- Counterpart funds are sufficient for all 5 PPMUs in 2011 and assurances on counterpart funds for 2012 have including Ninh Thuan and Quang Nam provinces.
- Quality of training course, training materials, and communication program remain a concern and greater attention needs to be directed towards assessment of the effectiveness of all the activities.
- The Project welcomed the increased involvement of NAEC in activities under this sub-component and also in evaluating research projects for farmer-managed on-farm trials.
- The Mission visited the new studio established at NAEC for DVD production which will be used in producing extension materials by NAEC. A series of 10 DVDs will be produced by NAEC in 2012. The Mission requested that to ensure pro-poor nature of the DVDs to be produced, expertise on DVD production for illiterate people is to be included in the DVD production team. In the production of DVD, it is encouraged that farmers be involved in the script production and participates in the DVD making as farmers are more effective in communicating with fellow farmers.
- The Mission notes that weakness in the implementing the baseline and monitoring system of extension activities remains to be further addressed. CPMU is to collaborate closer with NAEC to ensure full ownership of the

database and the implementation of monitoring system beyond the Project period.

- Review of Implementation of the Gender Action Plan revealed that gender mainstreaming and specific attention to the needs of ethnic minority communities should be further enhanced. The Mission requests that all remaining training courses are to incorporate training on gender mainstreaming and needs of ethnic minorities, including training course for high-level officials in the provinces.
- Progress on implementing information dissemination to farmers through ICT technologies including using mobile phone is to be reported in the next project progress report.

34. **Promotion of Extension Contracts.** The sub-component finances on-farm demonstration trials in the provinces through contractual arrangements with regional or national research institutes to strengthen the provincial links between research and extension.

35. As of 31 October 2011, the five provinces had implemented 538 demonstration models and 32 research trials (5.3%). Demonstration models for the provinces are: 211 demonstration models and 5 research trials in Thanh Hoa, 124 demonstration models and 9 research trials in Nghe An, 124 demonstration models and 8 research trials in Quang Nam, 72 demonstration models and 8 research trials in Ninh Thuan, and 47 demonstration models and 3 research trials in Dak Nong. According to the DMF, at least 20% of the remaining extension contracts have to be research trials. The low figure of 3% to date is strongly influenced by the level in Thanh Hoa, where just 5 (2.6%) of the 216 contracts implemented have been research trials. In Dak Nong, while the number of contracts has been relatively low at 47, 6% have been research trials. In Ninh Thuan 10% of contracts have been for research trials. The demonstration models include 363 livestock models (64%), 154 crop production models (27%), and other types such as fisheries and mechanization of agriculture models account for 9%.

36. Since the last review mission Dak Nong increased the number of extension demonstrations implemented by 27% which was the second highest growth rate among the five PPMUs. Quang Nam increased demonstrations by 51%. Dak Nong lags behind the other 4 provinces in terms of participation levels in demonstrations, with 14 households per demonstration compared to 32 and 28 in Thanh Hoa and Nghe An, respectively. The number of beneficiaries per demonstration in Dak Nong is 60 compared to an average of 116 for the other four provinces.

37. The national value chain development specialist prepared and delivered a training course on survey methods and data analysis to representatives from each PPMU to guide them in the development and conduct of surveys of indigenous knowledge and technology. Only one PPMU, Quang Nam has submitted a plan to CPMU to conduct the survey. The delay in data collection in the five provinces has slowed progress of the value chain development for indigenous products. A final report on indigenous products and technologies with niche market potential will be prepared by Quarter 2 2012.

38. Following a recommendation of the ADB review mission in April 2011, a national consultant has been appointed to explore information dissemination to farmers through ICT technologies including mobile phones (SMS) and Teletext. A survey of farmers in Thanh Hoa

has been conducted. The consultant will review experiences of using various media to send information to farmers and will assess their feasibility for use by the Project.

39. As of October 2011, there have been 234 service providers participating in the bidding process in 5 project provinces of which 158 service providers were awarded the contracts to implement 514 extension models. In 2010, increased number of non-government service providers participated in the bidding process raising the competitiveness and quality of extension services in the project areas. An assessment of extension service providers study found that competition varied among the five provinces, with one PPMU awarding contracts to just one type of organisation (DAES) and others spreading contracts among nine different types of organizations.

40. Under Component 2.2 the PPMUs were required to implement both field demonstration models and participatory on-farm research trials. Demonstration models accounted for 94% of all extension trials. Since identification of extension needs is a bottom-up process with priorities set each year using a participatory process involving farmers. Where suitable technologies exist, farmers' needs are best met through field demonstration models. Where technologies or suitable solutions are not readily available, the need should be relayed by the extension service to identify suitable research institutes to conduct research trials to verify the technologies under farmer-managed on-farm trials prior to demonstration extension.

41. Findings and Recommendations

- Since the Project is the first in piloting competitive bidding of extension contract and have successfully overcome the initial difficulties, the Project experiences and lessons learnt should be regularly summarized and provided to MARD in supporting the implementation of Decree No. 2. Systematic sharing and exchange at provincial levels should also be institutionalized.
- Additional training is to be conducted for extension workers and service providers on (i) gender mainstreaming; (ii) participatory method; (iii) participatory group guarantee for market access, and (iv) climate change, water management, environment, social, and health implications of agriculture technologies.
- Selection and management of extension contract on research trials and demonstration model should be clearly distinguished by PPMUs and CPMU staff. Only mature technologies which have been proven in the same agroecosystems and socioeconomic conditions could be included in demonstration model. Technologies which are yet to be proven in the specific area which requested for the extension model will require farmer-managed research on-farm trials to verify the viability of the technologies prior to extension. A clearer description of research trials should be explained to all PPMUs and bidding process should have clear criteria-for evaluation and selection of suitable research trial service providers.
- The Mission noted that extension contracts are largely limited to transfer of particular technology with limited attention to market access. Earlier recommendations on the Mission on improving collaboration with private enterprise in promoting contract farming of green food under value chain development appears to be limited. The Mission reiterates the need to adopt a

holistic supply chain development in the extension packages. This could include extension program on formation and strengthening of farmer organization.

- For the indigenous surveys which plan to be carried out in early 2012, the Mission requests that additional questions on assistance to adapt to climate change by farmers be added to provide information on research demand for future activities of MARD.

(iii) Component 3. Rural-Based Technical and Vocational Training

42. The capacity of ten rural-based technical and vocational training schools is being strengthened by (i) improving technical knowledge, teaching, and managerial skills of teachers and administrators and curricula; and (ii) upgrading library and laboratory equipment and materials, teaching and laboratory facilities, and office equipment for school administration. DOP continues to oversee activities under this component.

43. The activities under this subcomponent are making steady progress. The 10 schools completed development of first 11 training programs and 96 sets of training materials (curricula). Nineteen additional training programs were identified in August 2010 to be developed in 2011. At 31 October 2011, 19 training programs have been developed and 89 sets of training materials, of which 44 have been approved. Each of the 10 schools has established a Curriculum Development Executive Board, involving a private sector representative.

44. Training courses conducted under this sub-component include (Table 13 Appendix 1):

- (i) Ten courses on "Developing Training Curricula" for 261 participants (27.6% women participants)
- (ii) Five courses on credit transfer system for 205 participants (24% women)
- (iii) Three courses on compiling training materials for 86 participants (32.6% women)
- (iv) English training courses were organized at each of the 10 project schools for school leaders and teachers (15-20 participants in each school).

45. To identify causes of low level of participation of women in training conducted in participating college, a review on gender distribution of participating college found that female staff ratios have been increasing in all ten schools since 2007, however the range is wide with one school approaching 70% female staff and another with less than 10% female staff. The review proposed that an achievable target for participation of women in Component 3 activities is 35%. To date, female participation in training courses under the project has been 28%.

46. Contracts have been awarded for the procurement of (i) small-scale civil works for the construction and renovation of classrooms, libraries, and laboratories; and (ii) school and laboratory equipment for the 10 vocational training schools. Draft bidding documents and bid evaluation reports for the remaining packages continue to be prepared and submitted for ADB approval. Out of a total of 66 packages (14 for civil works and 52 for equipment), 13 contracts for civil works have been awarded while 46 contracts have been awarded for equipment. A summary of the status of the procurement of packages is in Appendix 6.

47. Findings and Recommendations

- The Project has supported establishment of an e-library system to facilitate sharing of knowledge products and information among 10 schools in association with the Center for Information and Statistics under MARD. The first phase of procurement of hardware and software has been completed and training has been provided for 20 librarians in May 2011. To ensure effective implementation, the CPMU has requested for assurance of adequate staff to operate the system prior to implementing the second phase of the e-library system. The Mission request CPMU to expedite the implementation of the e-library system to ensure improved access to updated knowledge products for teachers and students in participating institutions.
- Gender disaggregated data has been collected showing that women participation training activities should be increased to 35%. The Mission requested that actions be taken to achieve this in the remaining period of the Project.
- Field visits to colleges under the Project shows that all colleges are benefiting significantly from project supports. Small-scale civil works to improve classrooms and training facilities and provision of computers and laboratory equipment have made possible improved and effective learning environment for students. Increased applicants to colleges have been reported by college visited. Gaps in physical and human resources for the national AST system are being effectively addressed by supporting these colleges and should be prioritized in future activities of the MARD.
- Curriculum developed under the Project should be up-to-date with the latest technologies and practices and is consistent with forefront issues in agriculture development. It appears that some school still has low capacity in this regard. The e-library system to be established should have formal linkages with organizations, networks and associations that can facilitate the revision of curricula and associated training materials and text books. CPMU is to explore the possibility of establishing such linkages for example with the Vietnam Academy of Agricultural Sciences(VAAS), the Farmer Union and relevant industry associations and support the development of suitable procedures for the provision of information.

(iv) Component 4: Project Management

48. The CPMU is the overall project management support, acting as the central contact and coordination point for the Project, and monitoring the progress of all components. There are five provincial project management units (PPMU) in five provinces and 20 institute project management units (IPMU) comprising ten research institutes and ten agricultural colleges & vocational schools implementing the various project activities.

49. The following highlights the Mission's findings and recommendations:

- **Downsizing of Project team.** As majority of project activities will be completed by Q2 2012, the Mission requests CPMU to take steps in reviewing the need for downsizing/transforming the function of the Project team and to revise staff TOR

accordingly. The downsizing plan is to be included in the next Project progress report.

- **Project monitoring system.** The Mission request CPMU to pay greater attention to the Project monitoring system in all components. Although the Project is approaching its final year, there is still a need to further identify key indicators to monitor project activities, outputs, outcomes and impacts. The Mission recommends that guideline be developed by the consultant for PPMUs and IPMUs to conduct brainstorming sessions to identify key indicators for outputs, outcomes, and impacts for each sub-component. Based on the outputs of the brainstorming sessions, a list of key indicators is to be shortlisted by consultants for use in the monitoring system. The list is to be submitted to ADB in Q2 2012.
- **Impact evaluation study.** The Mission noted that due limited resources allocated to the on-going impact evaluation study the results may not be representative of the Project activities. The Mission requests that CPMU works with consultants to identify the gaps in the on-going studies and submit a proposal on conducting a comprehensive evaluation of project sub-components, including analysis of financial and economic returns of successful technologies extended under the project. This comprehensive study would inform MARD in nationwide implementation of Decree no.115 and Decree no 2 and would be used as a basis for preparing the Project Completion Report. The study proposal is to be submitted to ADB by 15 February 2012.

C. Procurement of Civil Works, Goods and Services

50. An updated list of procurement status at schools and institutes provided by the CPMU is shown in Appendix 5 and 6, respectively. The status of procurement activities for each component in the project design is listed as follows:

- (i) **Component 1:** Thirty-six contracts for research and laboratory equipment have been awarded (33 of which have been installed as of 31 October 2011). Draft bidding documents and bid evaluation reports for the remaining 10 packages continue to be submitted for ADB approval. The installation and necessary training are expected to be completed in Q2 of 2012.
- (ii) **Component 2:** The procurement of office equipment for the PPMUs and extension equipment for agricultural extension at district level has been completed. In July 2011, ADB approved four additional packages to strengthen extension information dissemination activities. Completion of these packages are expected by 2Q 2012.
- (iii) **Component 3:** A total of 59 packages (13 for small-scale civil works and 46 for library, laboratory, teaching and office equipment) have been awarded. Draft bidding documents and bid evaluation reports for the remaining packages are still being prepared to be submitted for ADB approval. The installation and necessary trainings are expected to be completed in early 2012.

51. The Mission and EA updated the Procurement Plan for the remainder of the project period. The Mission supports the changes as reflected in Appendix 7 and will seek necessary approval upon its return. The approved procurement plan will be posted on the ADB website.

D. Consulting Services

52. Status of Consulting Firm Inputs. Of the 177.8 person-months of consulting services inputs (29 international and 148.8 national), 137 person-months (22.07 international and 114.93 national) have been utilized as of 31 October 2011, equivalent to 77%. The schedule of consultants' inputs is presented in Appendix 8.

53. Regular meetings between CPMU, implementing agencies, and the consultants are held to update each other on key project issues and outcomes. The relationship between the consultants and the CPMU has strengthened over the course of the Project with a high level of cooperation for all Project activities. Relations between the consultants and MARD partner departments and agencies are satisfactory, limited to some extent in 2011 by the completion of the extension and vocational training consultants in 2010.

54. As a result of the last Mission's recommendation, ADB approved a fourth variation to the consulting firm's contract on 26 July 2011 which includes mobilization of the specialists for the remaining project period, replacement of some specialists as well as the extension of the contract for 1 more year without the increase in the total consultant contract value.

55. Status of Individual Consultants. As of 31 October 2011, the Project had engaged 7 national consultants (extension specialists for the 5 provinces, a training consultant, and a CPMU coordinator) for a total of 204 person-months input. Four consultants have completed their inputs and the final three will finish at the end of 2011. To date, 181.5 person-months have been delivered (Appendix 8). The CPMU is to verify if underutilized funds under other categories could be moved into consultant service and if so a possibility of extending the inputs of the team leader to provide support on project completion report in 2013 should be considered. CPMU is to report the outcome to ADB by 15 February 2012.

56. **Status of Consultancy Projects:** In November 2010, additional consultancy projects commenced, following recommendations of the ADB Midterm Review. Update on the consultancies are as follows:

- (i) The Value Chain Development Specialist has not completed his project due to delays in data collection. He provided training on survey methods and data analysis to the PPMUs in June 2011. However at 31 October 2011 only one PPMU (Quang Nam) had submitted a plan to CPMU for the indigenous knowledge survey. The Project Director has requested the five PPMUs to complete the surveys by end of the year. The consultant will complete his assessments of the potential of indigenous products and technologies for niche market development by the second quarter 2012;
- (ii) A national consultant is investigating the utilization of information dissemination channels by farmers in Thanh Hoa province and assessing farmers' demands for information and how they acquire it. In particular this project is assessing the potential of teletext;
- (iii) Three consultants have been appointed as part of contract variation 4 to assess the impacts of investments made under the AST Project. One of these is a national specialist who will assess the utilization of equipment procured by research institutes and schools under the project. The other two are the international and national impact assessment specialists who will assess the

return to investment in activities in each Component of the Project. These evaluation projects commenced in October 2011 and will be completed in early 2012; and

- (iv) The national agricultural research management specialist (NARMS) (Deputy Team Leader) and the national agricultural vocational training specialist (NAVTS) were extended to support the continuation of the Project in 2012. A national project evaluation specialist consultant (NPES) has been appointed to assist CPMU with preparation of the Project Completion Report. A draft schedule of consultant inputs has been prepared with most finishing contract commitments. The NARMS and NPES consultants will distribute their inputs throughout finishing in December. They will be supported by the National Communication Specialist who will assist with translation of final reports and supporting documents.

E. Project Reporting

57. The Progress Report for 3Q 2011 was submitted on 22 November 2011 (nearly a month delayed). Quality of progress report has improved gradually but reporting against the target set under the Design and Monitoring Framework could be improved further. Given the fact that Project activities are at an advanced stage, in addition to reporting implementation progress, the report should also report outputs, outcomes and early impacts and include issues requiring attention. A list of reports submitted and publications under the Project is shown in Appendix 9.

F. Project Costs and Financing

58. **Contract Awards and Disbursement.** As of 31 October 2011, the CPMU reported total disbursement of VND641 billion (approximately \$32.05 million) comprising of VND486 billion (approximately \$24.32 million) of ADB funds and VND155 billion (approximately \$7.73 million). A schedule showing overall project expenditure to date is in Appendix 10.

59. The status of ADB Loan utilization as of 31 October 2011 can be found in Appendix 11. The dollar-equivalent value of ADB's loan (SDR20.198 million) is \$31.19. The cumulative contract awards and disbursements of loan proceeds were \$21.15 million and \$23.62 million, respectively. To date, achievements against the 2011 projections are 99% (\$6.21 million against \$6.27 million) for contract awards and 150% (\$7.60 million against \$6.61 million) for disbursements. The Mission reviewed Withdrawal Application No. AO176, amounting \$700,000, for replenishment of the imprest account and has found this in order. The Mission will input this in the LFIS for disbursement in 2011 upon its return to Manila.

60. **Reallocation of Loan Proceeds.** The Mission and CPMU discussed the need for a reallocation of the loan proceeds to ensure that the Project's outputs will be met until the remaining period. Details of the proposed reallocation are presented as Appendix 13. Reallocations need to be done for the following:

- (i) Procurement of additional packages for small-scale civil works contract for the technical and vocational training schools as approved by ADB in September 2010;

- (ii) Trainings for curriculum development of the ten schools, proposal writing and carbon accounting for researchers, and short-term overseas training programs on climate change;
- (iii) Provision for additional extension activities, as approved by the Project Steering Committee, Thanh Hoa & Nghe Anh (\$0.20 million each) and Dak Nong, Quang Nam & Ninh Thuan (\$0.10 million each);
- (iv) Provision for comprehensive indigenous survey on all provinces, and
- (v) Consulting inputs for comprehensive evaluation study to extract lessons from the Project for nationwide implementation of Decree 115 and Decree 2 as well as for PCR (upon approval of MARD).

61. The Mission will seek the necessary approvals upon its return to ADB Manila. A formal notice will be sent to the Borrower as soon as approval is obtained.

62. **Audited Financial Statements.** The Audited Financial Statements (AFS) for the period 2010 was submitted to ADB on 16 July 2011 (with a delay of 1.5 months). CPMU provided an update on the recommendations made by the Auditor and the Mission is pleased to note improvement on financial management, including outstanding issues from the previous audit reports. In particular, CPMU has (i) provided further training to the PPMUs and IPMUs on the use of the Accounting software for proper bookkeeping, and (ii) required all PPMUs to strictly implement asset stocktaking and liabilities reconciliation by including these in the financial reports. On expenditure management, PPMUs have been reminded that utilization of ADB funds in place of counterpart funds (or vice versa) should not be allowed. Thanh Hoa PPMU has reimbursed money for training expenditures from the counterpart fund to the ADB fund. On cash management, CPMU will instruct the PPMUs of Nghe An, Thanh Hoa, and Ninh Thuan to open its own level II imprest account for the counterpart funds to receive cash transferred by local treasury for counterpart expenditures (salaries and allowances of staff).

63. **Counterpart Funds.** Of the VND64 billion counterpart funding requirement reflected in the Project's projected expenditures for 2011, approximately VND53 billion has been committed by the Central Government for expenditures covering Components 1, 3, and 4; while a total of approximately VND11 billion has been committed by the five participating provinces for activities in Component 2.

64. CPMU reported that counterpart funds for 2012, including that for all PPMU in five provinces, are already committed and will be sufficient for activities for next year.

65. **Imprest Accounts.** The Mission undertook a random review of the operation of the first generation imprest account and found withdrawal applications and supporting documents are in order. With the submission of WA A0176 (para. 60), the imprest account turnover ratio will improve from 1.83 to 2.06.

66. Mission advised CPMU that, in accordance with paras. 10.15-10.17 of ADB's Loan Disbursement Handbook, imprest account advances are to be gradually reduced within one year before the loan closing date (or when the undisbursed loan balance is equal to twice the amount of the advance) to ensure that sufficient time is provided for the borrower to obtain supporting documentation for clearing the outstanding advances before the loan account is closed. As of 31 October 2011, the undisbursed loan balance is \$7.58 million. It was agreed that

the imprest account will be liquidated by \$600,000 beginning second quarter 2012, and by similar amounts quarterly thereafter to allow reduction of advance to the Project.

67. Based on advice of DOF at the wrap-up meeting, the CPMU is to begin processing project completion procedures including financial closures, inventory reports, etc, based on government regulations. This should be pursued in early 2012 to ensure that all documents will be in order at project completion.

68. Contract Awards and Disbursement Projections for 2012. CPMU submitted its contract awards and disbursement projection for 2012 (Appendix 14). Of the total projection of \$6 million, 38% will be for the remaining equipment packages for research institutes/schools/e-library (phase 20), another 38% will go to training (overseas, local, and curriculum development of 10 schools), and the balance will be for operating costs, research & extension contracts, and consulting services (%0.50 million for use in comprehensive evaluation of the Project). CPMU agreed that remaining project expenditures will be carefully reviewed and evaluated especially now that the Project is in its last year of implementation.

G. Benefit Monitoring and Evaluation

69. The final report of the Baseline and Evaluation Consultants was completed in May 2011. Training on the Project DMF and associated M&E reporting formats was conducted for representatives of all Project Management Units on 26 and 27 May 2011 in Nghe An. As part of contract variation 4 an impact assessment team has been appointed comprising one international and one national specialist. They will estimate net benefits of activities in each Component of the Project and assess the return to investment in several project activities as well as the project as a whole. The impact assessments will be completed in January 2012 and a final report prepared by 31 January 2012.

H. Environmental and Social Safeguards

70. As the Project works largely in environmental and social sensitive areas, ADB safeguards should be strictly adhered to. During the last review mission it was advised that awareness on social and environmental safeguards remains to be improved. The CPMU in association with the consultants prepared summaries of the ADB environmental and social safeguards and an action plan on social and environmental safeguards and gender equality for distribution to IPMUs and PPMUs. A progress report on the status of compliance with the Project Environmental Management Plan, Indigenous People Action Plan and Gender Action Plan was prepared by the Consultants for CPMU with specific actions not addressed by the DMF identified. Effective follow-up by the CPMU on compliance is required to ensure that the safeguards are adequately implemented.

I. Compliance with Loan Covenants

71. The Mission finds the loan covenants to be generally complied with. Weaknesses on gender, environment, and social safeguards have been addressed. The Project Steering Committee meets twice a year, independent of other project activities i.e., wrap-up meeting of ADB Mission, to effectively guide and resolve issues on the Project. An updated schedule of covenants is given in Appendix 12.

IV. ACKNOWLEDGEMENTS

72. The Mission would like to thank MARD especially the following agencies: ICD, APMB, CPMU and the Consultants, DOP, DSTE, NAEC, SBV, and the IPMUs of Northern College for Agriculture and Rural Development, Field Crop Research Institute, and Northern Water Resources College for their help and cooperation during the Mission's visit. The next loan review mission is tentatively scheduled for May 2012.



Sununtar Setboonsarng
Hanoi, Viet Nam
8 December 2011

