

**Australia-Viet Nam Development Cooperation Program**

## **Collaboration for Agriculture and Rural Development Program (CARD)**

### **Mid Term Review**

---

20 – 27 August 2007

Submitted to AusAID 13 October 2007

**Disclaimer:**

The report reflects the views of the members of the Mid Term Review (MTR) team visiting the Collaboration for Agriculture and Rural Development Program (CARD) only. It does not necessarily reflect the views of the Governments of Australia or Viet Nam, or any of the agencies or persons consulted during the Mission.

# Contents

---

Executive Summary	iii
1. Introduction	1
1.1. CARD Goal, Objectives and Outcomes	1
1.2. Viet Nam's Socio-Economic and Rural Development Agenda	2
1.3. Science Policy Reform in Viet Nam	3
1.4. Viet Nam – Australia Country Strategy	5
2. CARD Progress and Implementation Performance	7
2.1. CARD Progress and Work Program	7
2.2. CARD Responsiveness to Changing Science Environment & MARD's Needs	9
2.3. CARD Risk Management Matrix	14
2.4. CARD Progress against Program Components and Outputs	15
3. Strategic Issues for MARD Research in the Remaining CARD Period	19
3.1. Introduction	19
3.2. Strategic Issues that can be Addressed through CARD	19
3.3. Strategic Issues beyond CARD's Mandate	21
4. Beyond CARD: Supporting Research in Agriculture and Rural Development in the Future	23

## Annexes

---

- Annex 1. MTR Aide Memoire
- Annex 2. List of Persons Met
- Annex 3. Mid-Term Review Terms of Reference
- Annex 4. Milestone 14 Report Executive Summary

## Acronyms

---

ACIAR	Australian Centre for International Agricultural Research
ADB	Asian Development Bank
AMC	Australian Managing Contractor
ASDP	Agriculture Sector Development Project
AST	Agriculture Science and Technology (project)
AusAID	Australian Agency for International Development
CARD (Pilot)	Capacity Building for Agriculture and rural Development
CARD	Collaboration for Agriculture and Rural Development
DoF	Department of Finance (MARD)
DST	Department of Science and Technology
EOI	Expression Of Interest
GoA	Government of Australia
GoV	Government of Vietnam
ICD	International Cooperation Department
IPSARD	Institute of Policy and Strategy for Agriculture and Rural Development
IT	Information Technology
MARD	Ministry of Agriculture and Rural Development
M&E	Monitoring and Evaluation
MoHA	Ministry of Home Affairs
MoF	Ministry of Finance
MoST	Ministry of Science and Technology
OPD	Operations and Personnel Department (MARD)
PC	Program Coordinator
PCC	Program Coordinating Committee
PDD	Project Design Document
PM	Program Manager
PMU	Program Management Unit
PSC	Project Selection Committee
R&D	Research and Development
RIMS	Research Information Management System
SEDP	Socio Economic Development Plan
SOE	State Owned Enterprise
STC	Science and Technology Council
TA	Technical Assistance
TAP	Technical Advisory Panel
TC	Technical Coordinator
ToR	Terms of reference
VAAS	Vietnam Academy of Agricultural Science
VAMES	Vietnam Australia Monitoring and Evaluation Strengthening

## Executive Summary

---

This report presents the findings and recommendations of the Mid-Term Review (MTR) of the Collaboration for Agriculture and Rural Development (CARD) Program. The MTR was undertaken by John Soussan (Team Leader), Garry Smith (Rural Development Specialist) and Geoff Morris (ACIAR Country Manager) from 20<sup>th</sup> to 27<sup>th</sup> August 2007. The CARD Program is a collaboration between the Governments of Viet Nam and Australia and is implemented by the Ministry of Agriculture and Rural Development (MARD) of the Government of Viet Nam (GoV).

The main overall finding of the MTR is that the CARD Program is being implemented effectively and to a high standard, with all stakeholders satisfied with the effectiveness and appropriateness of the Program's amended objectives and activities. The Program is implemented in a time of change and development in the overall structure and focus of MARD and the wider science and technology research management system.

CARD responded to this through changes to the focus and scope of activities to include an emphasis on institutional support to the development of research management capabilities in MARD, particularly in the Department of Science and Technology (DST). The MTR endorses this change as being appropriate and effective.

The wider context within which CARD is implemented has developed considerably since the time the Program was designed. The overall development vision of Viet Nam, as represented in the 2006 – 2010 Socio-Economic Development Plan, includes an overarching goal of balancing economic development, social equity and environmental sustainability. For rural development, modernization, livelihoods diversification, poverty targeting and environmental sustainability are all stressed. The draft 2007 – 2010 Viet Nam - Australia Country Strategy reflects these changes, with an emphasis on targeting persistent pockets of poverty, and on greater harmonisation with and implementation through GoV systems.

This report presents an assessment of the implementation performance of CARD, taking into account the dynamic environment in which it is being implemented and the changes to the objectives and scope of activities of the Program. The findings of this assessment are discussed in particular in Section 2. Although the overall evaluation of CARD was that the performance was good, a number of recommendations are made by the MTR both in relation to where there is scope for improvement in the remainder of the CARD Program and with regard to longer-term support to research governance and management within MARD after CARD finishes. The **recommendations of the MTR** are that:

### **Recommendations on CARD Progress and Work Program**

1. CARD and MARD should collaborate to find resources to complete the research prioritization, to include a clearer poverty focus and extend prioritization to cover areas of MARD's mandate not yet included.
2. Specific criteria on poverty reduction impacts should be developed as part of the research proposal selection process.

3. A synthesis assessment of the lessons learnt in the research process across the 40 CARD research projects should be undertaken by CARD before program completion.
4. An international technical advisor is appointed to support DST in the process of reform of the research management system.

#### **Recommendations on Strategic Issues to be Addressed through CARD**

5. A structured dialogue process is implemented by CARD to clarify the implications of Decree 115 and related MARD reforms and inform all MARD research institutes of the institutional changes they will need to make to work effectively once Decree 115/MARD provisions are mandatory.
6. CARD supports MARD to undertake a rural research and development scoping exercise, to identify the full scope of relevant research issues and to foster participatory approaches and multi-disciplinary research partnerships.

#### **Recommendations on Strategic Issues Beyond the Scope of CARD**

7. CARD and DST should discuss and identify strategies to address issues beyond the scope of CARD, including the sustainability of the research management and M&E systems, the enhancement of the research management capabilities of all research institutes, wider international research collaborations and human resource needs assessments.
8. AusAID should support an initiative independent of CARD to identify modalities for greater harmonization in donor support to agricultural research and for fully operating through GoV systems in future support.

#### **Recommendations on Future Support Beyond the CARD Period**

9. AusAID post-CARD support for MARD should, as a first priority, focus on continued assistance for institutional strengthening and capacity building to ensure the enhancement of DST research management capacities.
10. Direct funding of research projects should continue, but with this structured through the ACIAR program.
11. The scope and focus of future twinning arrangements between Vietnamese and Australian/New Zealand research institutes should be further explored.
12. AusAID should take the lead with other donors to develop a harmonized package of support to research in agriculture and rural development, to include as priority areas: (i) activities to link long-term research more effectively into the development of rural development and poverty reduction policies and priorities; (ii) support to the development of the research management capabilities of MARD research institutes; and (iii) human resource development, with a particular focus on bringing the skills of researchers up to international standards, both in specialized areas and for multi-disciplinary research.

# 1 Introduction

---

## 1.1 CARD Goal, Objectives and Outcomes

---

In 1999, the Government of Vietnam (GoV) and the Government of Australia (GoA) agreed to the Capacity Building for Agriculture and Rural Development (Pilot-CARD) Pilot Program. The pilot approach was used to evaluate (i) the interest and support of the agricultural research community both in Australia and in Viet Nam, and (ii) the quality of results produced through the selected activities. A total of 28 projects were financed between 2000 and 2002 to the value of A\$12.6m, including an Australian Agency for International Development (AusAID) contribution of A\$7.6m. Lessons learned from the Pilot CARD led to the current Collaboration for Agriculture and Rural Development (CARD) Program, which differs at Program level through increased GoV ownership, greater attention to MARD institutional reform and a sharper focus on knowledge dissemination.

**The CARD Goal** is *“to increase the productivity and competitiveness of Vietnamese smallholder agriculture and related rural enterprises”*.

**The CARD Purpose** is *“to develop and apply agricultural knowledge and technologies which address constraints to productivity and competitiveness”*.

### **CARD Program Components**

The Program has two components:

**Component 1: Implementation of collaborative projects** has the objective to implement collaborative projects that develop technologies and educational or knowledge products that address specific constraints in agriculture; and strengthen Vietnam's human and institutional capacity to develop and apply such products. The ‘end-of-program’ vision is for a sustained ability of Vietnamese institutions to identify constraints to agricultural productivity and competitiveness and resolve them through scientific measures. Key outputs include (i) effective partnerships between Australian and Vietnamese institutions; and (ii) four rounds of competitive research projects effectively implemented; (iii) a capacity building program that has subsequently been redesigned to focus on research management under Component 2.

**Component 2: Program management and governance** has the objective to efficiently and effectively manage the CARD Program and strengthen the capacity of MARD to manage agricultural technology and knowledge development programs. The ‘end-of-program’ vision is for MARD to be actively and effectively involved in program direction, project monitoring and evaluation and the promulgation of project information. Key outputs include (i) the establishment of an effective program management structure; (ii) the competitive selection of a suite of projects that meet research priorities (iii) the systematic monitoring of CARD projects (iv) the establishment of an effective Research Management Information System (RIMS); (v) an efficient project contracting, monitoring and reporting system and (vi) strengthened capacity for research governance and management within the MARD and its DST.

## 1.2 Viet Nam's Socio-Economic and Rural Development Agenda: the National and MARD Socio-Economic Development Plans

---

The Government of Viet Nam published a new Socio – Economic Development Plan (SEDP) for the period 2006 – 2010 in 2006. This SEDP sets the context within which all government programs and plans should be considered. The 2006 – 2010 SEDP represents a significant new direction for national development. It emphasizes the need for a coherent and integrated approach to sustainable development that builds on and boosts the existing rapid economic growth, but that also takes full account of the need to balance growth with enhanced social equity and environmental sustainability.

The SEDP anticipates Viet Nam's transition to being a developed country by the year 2020, with a knowledge-based economy and stable and secure livelihoods for all sections of society. With regard to the rural sector, the plan defines the major tasks as being to:

*“Promote in-depth investment to make substantial changes in agriculture and to develop comprehensively the rural economy. Shift the structure of agriculture and rural economy towards modernization and industrialization; improve scientific research and technology application in production, preservation and processing.”<sup>1</sup>*

The SEDP emphasizes the diversification of the rural economy, the need to target appropriate development solutions for the needs of communities in remote and impoverished parts of the country, the strengthening of private sector engagement in rural development and the continuation of decentralization and local democratization processes. The priorities and development principles set out in the SEDP provide a context within which sectoral and provincial level plans should be established.

This is reflected in the MARD Five Year Plan for the period 2006 – 2010. The overall objective of the plan is to achieve high sustainable and equitable growth. This includes the improvement of the social environment and living conditions for rural people, especially the poor and the protection and sustaining of natural resources and the environment through dynamic sector management. The plan emphasizes decentralization and the inclusion of stakeholders in decision-making, regulation, service delivery and monitoring. The MARD Five Year Plan identifies four goals through which this overall objective is to be realized:

- Ensure high, sustainable and high-quality economic growth of the sector through improved productivity, competitiveness and product quality.
- Improve the quality of life and living conditions for rural people, especially the poor, through increased empowerment.
- Ensure environmental sustainability.
- Enhance institutional capacity for effective and dynamic sector management.

The MARD plan consequently represents a translation of the balanced approach to growth, equity and sustainability of the SEDP to the ministerial level and places an emphasis on reform and institutional change to make the ministry and partner

---

<sup>1</sup> Government of Viet Nam (2006) **Socio-Economic Development Plan 2006 – 2010**, page b.

organizations more able to deliver this new rural development agenda. Growth and agricultural modernization are still central objectives, but not to the exclusion of other issues and the importance of targeting the remaining pockets of persistent rural poverty is emphasized throughout the different components of the plan.

## **1.3 Science Policy Reform in Viet Nam**

---

### ***1.3.1 National Science Policy Reform***

---

Ability to compete in a global economy is increasingly dependent on a country's capacity to create, acquire, assimilate, use and diffuse knowledge. Building on earlier Decisions that established the MoST as the national science coordinator and recognizing the need to "enhance the responsibilities and raise the activity, initiative, dynamism and creativity of scientific and technological organizations" in Viet Nam, the Ministry of Science and Technology (MoST) and the Ministry of Home Affairs (MoHA) issued Decree No 115/2005/ND-CP September 5 2005: ***Stipulating the mechanism on autonomy and self-management of public scientific and technological organizations***. The Decree aims to build a more competitive and market oriented research system within which the scientific and technology required to underpin Government's socio-economic development priorities are efficiently and effectively met. The decree provides the legal framework for a blend of basic, applied and near market research to be implemented through more autonomous, competitive and commercially oriented research institutions.

Decree 115 divides scientific and technical institutions into scientific research organizations, responsible for basic or policy research; and scientific research; and technological development and service organizations, responsible for more applied and near-market research that should pursue self financing, including commercial enterprise. The decree appears to establish a structural separation between basic and applied research, carrying the risk of dividing an already fragile scientific competence and does not specifically address the public good research required to drive agriculture development in Viet Nam, especially in support of poverty alleviation. Mission discussions with the MoST National Institute for Sciences and Technology Policy and Strategy Studies (NISTPASS), however, revealed the anticipation of a more integrated and flexible scientific institutional and funding environment and the understanding that public good research would equate with basic research in funding mechanisms. There is a clear need to clarify and support public good research for agriculture within this ongoing science reform process, while not diminishing its core elements of competitive funding, commercial orientation and institutional efficiency and independence.

### ***1.3.2 MARD Response to National Science Policy Reform<sup>2</sup>***

---

Within MARD, the DST has overall responsibility for research coordination, priority setting and fund allocations. Under Decree No. 86/2003/ND-CP on the “Functions, tasks, authorities and organizational structure of Ministry of Agriculture and Rural Development”, the DST is responsible for the:

- Development and management of research programs and technology application in the domain of agriculture, forest, salt cultivation, irrigation/water services and rural development.
- Management of animal and plant genetics used in agriculture and forestry;
- management of quality standards of agricultural forestry and salt input materials and product.
- Management of agriculture and forestry science and technology information, including intellectual property rights.
- Management of food safety.

In response to Decree 115, The Minister, MARD issued Circular No 1197/BN-KHCN of MARD concerning: ***The implementation of the plan for science and technology development***, instructing the Institute of Policy and Strategy for Agriculture and Rural Development (IPSARD) and the DST to prepare a strategy for agriculture science and technology (AST) research to 2020 and a program for the reform of AST management within MARD. A subsequent MARD Decision No. 36/2006/QD-BNN dated 15 May 2006 on the ***Management of scientific and technological researches and projects of the Ministry of Agriculture and Rural Development*** authorizes the DST to manage the MARD research program; defines three categories of research – national, ministerial and grass roots – essentially alternative funding sources; and describes procedures for the identification, implementation, monitoring, evaluation and reporting of agriculture research. The Decision underpins the principles of competitiveness and institutional independence defined in Decree 115, but contributes little to the strategic direction or priorities for agriculture research.

MARD is also in a process of reorganizing its agricultural research institutions under the Asian Development Bank (ADB) financed Agriculture Sector Development Program (ASDP) that has seen the number of core institutions reduced from 32 in 2004 to 12 now, with a further concentration into 6 academies planned in 2008. This has included the establishment<sup>3</sup> of the Vietnam Academy of Agricultural Sciences (VAAS) an umbrella organization for 10 research institutes. MARD Decisions (Decision No: 72/2006 and Decision No: 898) describe the roles and responsibilities of VAAS and its Director, but lack clarity on the separation of responsibilities between VAAS and its sub-institutes. ASDP conditionality also commits the GoV to a 12 percent per annum increase in agriculture research funding. A new US\$30 million ADB financed Agriculture Science and Technology (AST) loan will assist MARD to

---

<sup>2</sup> More detailed analysis of the science reform process is contained in the 2006 CARD supervision report and the CARD Milestone 14 report “Options for reform in the efficiency and effectiveness of agricultural research management in the ministry of agriculture and rural development” (see Annex 4 for the Executive Summary of this report)

<sup>3</sup> Decision 930 /2005/QD-TTG: ***Approval on Reorganisation Plan for science and technology system under MARD***. This Prime Ministerial Decision included the establishment of IPSARD.

(i) build research staff capacity; (ii) invest in research infrastructure and equipment; and (iii) finance pro-poor research. Additional elements of the loan support the development of pluralistic extension services and vocational training.

In August 2007 the National Assembly approved the merging of the Ministry of Fisheries (MoFi) with MARD. The merger is now in process and will incorporate three aquaculture research institutes and the MoFi DST into MARD. While the merger adds 15 staff to the under resourced MARD DST, it also significantly expands its commitments and accentuates the urgent need for institutional reform, additional staffing and capacity building within the DST. That process will be assisted by the government approval of the CARD supported and IPSARD prepared proposal for *“Policy reforms in science and technology management in agriculture and rural development sector”*, which is expected to be available in a draft form in September 2007. A parallel CARD process to assist the DST in developing a Corporate Plan and, subsequently, an annual work plan, will, once approved, support the implementation of the MARD science policy reforms,.

Despite this increasing focus on research, GoV expenditure on agriculture research forms <5 percent of the agriculture sector public budget or about 1 percent of agricultural Gross Domestic Product (GDP), both low by international and regional standards. It should be noted, however, that GoV has made a commitment to a 12% annual increase in research funding; a significant amount that, together with support from international development partners, will strengthen the future funding based if this rate of growth in the budget is maintained. While agricultural research funding may be low, so is research institutional and scientific capacity, with the management, quality and relevance of agricultural research seen as more critical constraints than funding at this juncture. It is in these areas that CARD can best assist MARD and its AST stakeholders.

## **1.4 Viet Nam – Australia Country Strategy**

---

The Viet Nam – Australia Country Strategy (VACS) has undergone considerable revision since the time that the CARD Program was formulated. A new draft Country Strategy for the period 2007 – 2010 was available at the time of the MTR Mission. Although not finalized, the main focus and blocks of the strategy are clear. These are important for providing a context within which existing and future Australian support to research in agriculture and rural development should be discussed.

The draft VACS reflects the overall direction set for Australian aid in the 2006 White Paper<sup>4</sup>, which emphasizes a “one government” approach through which greater coherence between the support provided by different Australian agencies is to be fostered. The White Paper reaffirms the importance of poverty reduction as an overriding objective of all development assistance, emphasizes South-East Asia as a focal region for Australian support and stresses the importance of following principles of greater donor harmonization and working through government systems. Gender equality is identified as a unifying theme across all aspects of development assistance.

---

<sup>4</sup> Australian Government (2006) **Australian Aid: Promoting Growth and Stability** AusAID, Canberra.

The **development context** of the strategy emphasizes the changing character of the poverty reduction challenge in Viet Nam. Twenty years of progress have seen a significant drop in overall poverty levels and a commensurate rise in human development. Progress towards the main MDG targets is on track, and in some cases is ahead of schedule, though there are concerns with regard to some specific targets such as halting the spread of HIV/AIDS, the loss of environmental resources and extending access to improved sanitation.

The overall progress at the national level masks the key emerging poverty agenda, which is the continued existence of persistent pockets of poverty and vulnerability, generating increasing levels of inequality that are leaving many ethnic minority communities and people living in remote, mountainous locations behind as the benefits of growth and development reach other sections of society.

This diagnosis reflects the direction set by the SEDP 2006 – 2010, discussed above, and has led to the identification of five key objectives for future Australian support within the over-arching theme of promoting growth and stability:

- Vietnam plans for, and implements, international economic integration in a way that manages long-term opportunities and risks effectively.
- Better planning and implementation models to alleviate ethnic minority poverty applied.
- Better planning and implementation models for the provision of rural water and sanitation applied.
- Better integrated disaster mitigation approaches rolled out.
- GoV coordinating, managing and financing the health sector more effectively.

The draft VACS identifies four key principles that will guide the implementation of future Australian support to Viet Nam:

- More effective programs, based on better harmonization and alignment with government systems.
- More accountable programs.
- Stronger partnerships for development.
- Stronger synergy between policy and program level engagement.

The draft VACS anticipates that the achievement of the objectives and establishment of the new delivery modalities it sets will require “a significant increase in the size and profile of Australia’s aid program in Viet Nam”. The draft VACS consequently provides a clear context within which future support to research in agriculture and rural development should be considered. The prospect of sustained and enhanced support exists, but this is contingent upon demonstrating that the support will contribute to the objectives and the delivery principles defined in the draft VACS.

## 2 CARD Progress and Implementation Performance

---

### 2.1 CARD Progress and Work Program

---

#### 2.1.1 CARD2006-07 Annual Report – Review and Comments

---

The Mission has reviewed the CARD 2006/07 Annual Report and found it to be satisfactory. The 2006/07 Annual Report summarizes CARD Program progress to date and details achievements in 2006/07. Key achievements include: the increasing empowerment of the Project Coordination Committee (PCC), a series of investments in research institutional strengthening and policy development (in response to new Output 2.6); the further development of research priorities, the research M&E framework; and an increase in the number of projects under CARD/DST management to 32, following the PCC approval of an additional 10 research projects with the 2006 funding round. The Annual Report also provides a summary of project progress against outputs (Appendix 1), an updating of the risk assessment (Appendix 9) and reports the progress of projects funded under the CARD 2004, 2005 and 2006 CARD funding rounds and the Innovations Fund (Appendices 10-13).

With the third round of bidding now completed, CARD is responsible for establishing 32 research programs, the 4 Innovation Fund projects and is institutionalizing a transparent, robust and efficient process of competitive research allocation that will be progressively adapted and integrated into MARD's research processes. The further development of MARD's research management processes and capability are a CARD priority in 2007/08, once the research policy reforms and DST Corporate Plan are adopted. The CARD Project M&E system is developed and under implementation with all 2004 cycle projects visited during the last financial year and procedures for project impact evaluation tested. Work has also commenced on planning and testing the CARD Program M&E system and a baseline survey of scientists has been conducted for M&E of the MARD DST institutional and operational reforms.

Progress against Output 2.6 has been significant. The CARD Milestone 14 report "*Options for reform in the efficiency and effectiveness of agricultural research management in the Ministry of Agriculture and Rural Development*" provides an analysis of recent reforms in the Vietnamese science sector and proposes a structured approach to their implementation within the agriculture sector. CARD has also supported the IPSARD in the development of a draft proposal for science and technology policy reform in the agriculture and rural development sector and is about to complete work with the DST and VAAS on the development of their Corporate Plans, which include clear objectives and outputs and time bound strategies for their achievement. The project has also made a significant contribution toward the formulation of an agriculture and rural development research framework through the development of research priorities in the crop, fisheries and forestry sub-sectors, with work on-going for livestock research priorities and planned for policy research.

### ***2.1.2 CARD 2007-08 Work Program – Review and Comments***

---

The Mission has reviewed the CARD 2007-2008 Annual Work Plan and found it to be very satisfactory. The work program describes a natural progression of activities based on 2006/07 outcomes. Particular work foci in 2007/08 will include:

- The competitive selection of up to 8 Round Four CARD projects, reinforcing research management skills in the process.
- A schedule of mid-term reviews of up to 12 on-going 2005 projects and impact evaluation of up to 6 completed 2004 projects.
- The introduction of a new agriculture and rural development research policy framework and the elaboration of the DST Corporate Plan through the 2008 DST work program and budget.
- Support to the MARD DST with the development of a new research management framework through the revision of Decision 36.
- The completion of two additional research priority setting programs (livestock and agriculture and rural development policy), the elaboration of research strategies for each priority program and development of a national agriculture research framework and investment portfolio for the analyzed sub-sectors.
- A dialogue with MoST on national and MARD science reforms leading to a capacity building program for agriculture and rural development science institutions on the new agricultural research governance, management and funding framework.
- A work attachment for DST staff with a research funding agency in Australia or New Zealand responsible for the management of a contestable scientific research management system.
- Seeding a relationship between the Southern Fruit Research Institute (SOFRI) and the Southern Institute of Agriculture Engineering and Post-Harvest Technology (SIAEP) and HortResearch (NZ) Ltd, leading to the development of business plans and processes and non-government income streams.
- Seeding a relationship between IPSARD and the Australian Bureau of Agriculture and Resource Economics (ABARE). The outcome is the development of the tools and resources required for IPSARD to undertake its policy development, analysis and advice functions, including commodity analysis, farm household modelling and analysis and natural resource management research skills.
- Building research linkages through website elaboration, newsletters, two thematic workshops and an ongoing dialogue with research institutes and projects.

The Mission fully supports this work plan, but recommends that additional resources should be identified to address important gaps in the proposed Agriculture Research Framework Investment Portfolio and Medium Term Research Plan, including research into water management, disaster management and rural non-farm enterprise, which are important elements of MARD's agriculture and rural development mandate. Funding options could include the use of ARDP third tranche resources, including the use of national and international expertise as required.

### ***2.1.3 CARD 2007-08 Change Frame***

---

The Mission has reviewed and supports the Change Frame (June 2007) included in Appendix 15 of the 2007/08 work program. These include three new activities in Output 2.6, including:

- 2.6.8 Twinning between IPSARD and ABARE.
- 2.6.13 DST Capacity Development (including work attachment to research purchasing agencies).
- 2.6.14 Development of Autonomous Research Institutions.

In particular, as discussed in Section 2.2.1 below, the Mission strongly supports the proposals for the:

- Transfer of approximately \$140,000 of the Training Reimbursable Funds for DST Institutional Strengthening to Long Term Personnel Inputs.
- Approval to utilise the Training Reimbursables for costs (other than TA) for institutional strengthening within DST.

## **2.2 CARD Responsiveness to Changing Science Environment & MARD's Needs**

---

### ***2.2.1 Impacts on MARD Policy & Governance and Management and Delivery Mechanisms***

---

The Mission found broad-based support for the research governance, management and delivery mechanisms that the CARD project is developing in collaboration with MARD and its institutes. In 2007/08, the research management principles developed for the CARD research program will begin to be integrated into the MARD research governance and management procedures through an updated research policy and research management framework. The new research policy, which will be consistent with Decree 115, is expected to clearly separate research funding, management and implementation, increase stakeholder participation in research governance and prioritization, rationalize funding channels, strengthen competitiveness in research delivery, establish a framework for research academy management, raise private sector participation in research and implement a comprehensive research M&E system.

The **Milestone 14 report** provides a detailed synopsis and analysis of the legislative and regulatory frameworks for science in Viet Nam and particularly for agricultural science management within MARD, in what is a rapidly evolving scenario. The Mission commends the PMU for the comprehensive analysis the report provides in support of the systematic transformation of MARD's research governance, management and implementation systems and programs. The report highlights the extent of the task that MARD, in partnership with CARD and other associates, faces in reforming its agriculture and rural development research system and the associated staffing, capacity building and financial requirements.

The report also recognizes the fluid environment in which MARD/CARD is operating. This was highlighted by the discussion that the MTR team/CARD had with MoST/NISTPASS concerning the funding of public good research, which, it appears, will equate with basic research in terms of funding modalities. Given this sinuous situation, there is little that the MTR can bring to strengthen the respective components of the report except to identify that additional technical assistance will be essential to successfully introduce this scale of reform in the remaining Program period.

*The Mission strongly **recommends** that CARD appoint an international technical advisor to the DST for a period of about 18 months to support the reform process. The MTR notes that there are significant savings of around \$900,000 from project funds to invest in institutional strengthening. The MTR strongly recommends that the CARD consider prioritizing/reallocating funds for this role.*

*Noting the plan to second DST staff to research management institutions in Australia and/or New Zealand following the reform of Decision 36, the Mission further recommends that CARD consider identifying a young professional from one of these research management institutions to fulfill this task under the mentoring of the CARD Technical Coordinator. This would ensure continuity and momentum in the major thrusts of the research reform program while accelerating capacity development for future sustainability.*

**The IPSARD research policy reform paper** (draft 7a) provided to the mission reviews the policy issues raised under the Milestone 14 report and provides recommendations for reform. Issues raised in the document that will require future CARD/MARD attention include:

- Mechanisms to ensure broad-based stakeholder participation in research prioritization and governance need to be elaborated and implemented.
- The adequate resourcing of DST to implement its revised research management mandate, either through incremental staffing or the reallocation of non-research related activities, including food safety and food standards management and plant variety registration. With either option, additional staff capacity building and incremental operational funding, particularly for M&E, will be required.
- The research institute reform process will require additional investment beyond CARD resources, particularly concerning capacity building in institutional, scientific and business planning and management.
- Research funding mechanisms require further rationalization, including the possible transfer from MoST to MARD of all agricultural research funding, the introduction of principles and procedures for financing public good research, the development of multi-year funding mechanisms and the procedures, incentives and mechanisms for private sector participation in research funding and implementation.
- The establishment within government of contractual procedures enabling output/outcome based contract payments.
- The phased introduction of an M&E plan that is affordable and implementable.

As noted in the Milestone 14 report, these reforms will require the close collaboration of the MARD DST, the MARD Department of Management and Department of Finance and the MARD Decree 115 working group, to achieve the considerable revision of MARD regulations required to create a favorable environment for the introduction of competitive, milestone-based contracting procedures and private sector participation in research delivery. *This may require the support of specialized national experts (legal, accounting, audit, institutional) to advise MARD on legally and constitutionally robust reform strategies.*

### ***2.2.2 CARD's Response to the Evolving Science Environment***

---

**Research Prioritization.** CARD has introduced a relatively simple, internationally recognized procedure for medium-term research prioritization and has completed the prioritization of areas of research and development opportunity (ARDOs) and priority programs within ARDOs for the crop, fisheries and forestry sub-sectors. Work is continuing on the process of livestock research prioritization and there is a plan to prioritize policy research in the 2007/08 financial year. Workshops in 2007/08 will identify cross-sectoral ARDOs and, by late 2008, develop a national Agriculture Sector Medium Term Research Plan, which will include the Research Priority Framework and Future Target Investment Portfolio. This is an ambitious target considering the available resources, and, consequently, carries the risk of gaps in the portfolio, particularly concerning pro-poor research and research priorities for water management, disaster management and rural enterprise research, which fall under MARD's mandate.

The MTR discussed the research prioritization issue at some length with a variety of stakeholders, and acknowledges the position of CARD and DST on this issue as being that widening the scope of the research prioritization process is not appropriate at this time. This point of view is not shared by the MTR and the Mission has concluded that the full scope of research issues in agriculture *and* rural development need to be addressed through the DST if the full potential of research within MARD is to be realized. It would improve the relevance of MARD's research activities if these additional research areas were captured within the national research framework. If CARD funding and resources are unable to support the prioritization of these research areas, then *the Mission recommends that MARD uses its own resources or those released through the ARDP, together with CARD trained staff to complete this work.* The Mission is also concerned that the completed crop and fisheries research priority programs have insufficient pro-poor focus.

While the research prioritization process does identify social benefits as part of the benefit stream to be evaluated, the ARDO background notes for the respective selection criteria (potential benefit, likelihood of uptake, scientific potential and research capability) provide limited focus on the needs of the poor and this is reflected in some of the resulting priority ARDOs and priority programs within those ARDOs. The low ranking of animal forages, both at the ARDO and priority program levels in the crop research prioritization, for example, is of concern given the importance of improved livestock nutrition in existing poverty alleviation programs and the potential for forage production on the recently allocated forest lands. Equally, the absence of fish species essential to the low-cost upland VAC fish rearing system (carp sp., rohu, migral, etc) that has assisted many minority

households out of poverty, especially in the northern mountains region, illustrates a limitation in the fish research priorities.

This constraint may be addressed by better identifying poverty impacts as a sub-component within the “Potential Benefit” prioritization criteria, or, considering its centrality to government and donor development priorities, making poverty reduction impacts a separate selection criteria in the analytical framework. Alternatively, CARD could consider prioritizing pro-poor research as a separate research sector for integration into the final research plan. While recognizing these constraints, the Mission appreciates the scale of the research prioritization task and the dimension of change that the crop and fisheries priority setting programs have already brought to the way MARD will develop its future research program.

*The Mission **encourages** CARD to explore options that would enable stakeholders to address pro-poor technology and policy development in the forthcoming priority setting meetings for livestock and policy research, which could subsequently be institutionalized within DSTs research management processes. The Mission also encourages CARD to capture pro-poor crop and fisheries research needs during the process of identifying research programs in these sectors.*

The mission notes that the preparation of the Agriculture Research Framework, Investment Portfolio and Medium Term Research Plan is currently scheduled prior to the preparation of the policy research priority plan. As the policy research is an important component of the Agriculture Research Framework and likely to inform the overall choice of research priorities, and considering that the research framework is unlikely to be applied before 2009, *the Mission **recommends** that CARD allow some slippage with the development of the research framework and plan to allow for policy research prioritization. This may also permit MARD, using its own resources, to conduct priority setting in other important areas such as water utilization prior to the finalization of the framework document.*

The Mission is concerned as to the extent to which the research prioritization approach has taken into account both local level research and livelihoods development issues and long-term strategic issues with regard to poverty targeting and integrated rural development. *The Mission **recommends** that CARD consider executing a rural research and development scoping exercise, coordinated through IPSARD. The scoping exercise should look to broaden the scope of research collaborations, in particular looking to include social science research capabilities such as those in institutes under the Vietnamese Academy of Social Sciences and include collaboration with NGOs experienced in community-led development. This recommendation is discussed in more detail in Section 3.*

**Competitive Research Funding.** The mission supports the competitive research funding mechanisms adopted by the CARD project, but notes that the recommendation made by the 2006 CARD Technical Advisory Group (TAG) Assessment, to test new CARD-financed contractual relationships between Vietnamese and Australian institutions, has not been adopted. The mission understands that this decision comes from the PCC and reflects AusAID’s decision not to fund additional CARD research rounds and the complexity of changing the contractual procedures for a single, final round.

---

Given that Decree 115 opens the possibility for international scientific participation in national research projects, however, the Mission **encourages** the PCC to consider contracting 2-3 projects selected under the final CARD round directly to the participating Vietnamese institution, which would then sub-contract the support of international scientific expertise, training and laboratory services. The Mission understands the work this will require, however, this could be minimized if it involved willing Vietnamese and Australian institutions, and the experience gained would be invaluable in building the future DST research management framework, including the revision of Decision 36. Alternatively, AusAID, preferably in collaboration with ACIAR, could provide support on a pilot scale to develop a “new collaboration” model implemented collaboratively by CARD/ACIAR. The Mission also encourages the TAP/PCC to only support strong fourth round project proposals, with any further savings directed toward supporting MARD research priority setting, governance and management reforms.

While CARD’s project selection procedures are broadly recognized within MARD as being transparent, robust and efficient, MARD has not yet shifted from its mainly subjective methods for research project selection and funding, well captured by the term ‘asking-giving’ in the recent IPSARD research policy review. Following Ministerial approval of the new research policy document and the DST Corporate Plan, CARD will support DST to replace MARD Decision 36 with a new research framework that adapts and integrates CARD project competitive bidding procedures for a MARD implementation environment. The Mission fully **supports** this process, but cautions that MARD must make adequate financial and staff provision for its successful implementation. This should begin to be reflected in the 2008 DST work plan and budget that CARD will assist to develop and be comprehensively addressed in the 2009 DST budget.

In light of the above comments on pro-poor research prioritization, the mission further **recommends** that, in transferring and adapting CARD research proposal ranking methodologies to the MARD environment, the impact of proposed research on poverty reduction be included as a specific criteria in the selection process, in the same way that environment impact is presently separately scored. This recommendation stems from the expectation that, while the experienced CARD Technical Assessment Panel may intuitively select for poverty impact, this may not be the case in a much larger and less controlled MARD environment.

**Research Monitoring and Evaluation.** CARD has established an effective project M&E system and is developing its program level M&E. It has also initiated an activity to monitor change at the MARD institutional level with respect to attitudes and competencies in relation to the reform of the MARD research governance and management framework. The Mission observes that a synthesis assessment of the lessons learnt in the research process across all 40 or so CARD projects would be a valuable outcome of the M&E process and **recommends** that such an assessment is undertaken by the project before Program completion.

The Mission notes the enormity of MARD’s task in effectively monitoring its science program and encourages a phased introduction of the M&E system commensurate with the adoption of appropriate research management systems and availability of staff and operating funds. Recognizing that it would be extremely difficult to monitor or evaluate existing research contracts because they have few, if

any, specified outputs and rely on an acquittal-based disbursement systems, the Mission foresees the introduction of a revised DST M&E system in 2009. This would be subject to DST staff having consolidated their experience in managing the CARD M&E program, the update of Decision 36 being approved and research managers trained in its application, and the 2009 DST budget including adequate provision (staffing and operating costs) for effective project M&E.

The 2007/08 work program puts in place the steps for these conditions and MARD has made clear commitments to meet implementation costs, however, as with other aspects of the research management program, the M&E program is likely to stretch the resources of the CARD Technical Coordinator (TC) beyond effective limits. *The Mission consequently **recommends** the appointment of an international technical advisor to DST to support the research reform process (See also Section 2.2.1).*

---

## **2.3 CARD Risk Management Matrix**

---

The Mission agrees with the PMU assessment that “the vast majority of the risks identified in the PDD have been minimised by the project design, the experience gained during the first two years of program implementation” and the proposed modifications identified in the 2007/08 Change Frame. Additional potential risks identified by the 2006 TAG Supervision Mission and discussed in the 2007/08 CARD Work Program have been largely negated by the growing GoV and MARD commitments to research reform and the increasingly coherent approach to research governance, management and funding being adopted within MARD.

While these steps, combined with CARD’s on-going support for research policy and institutional reform and capacity building within MARD have significantly raised the likelihood of program sustainability, substantial work remains to adapt and internalize CARD strategies within MARD. The choice not to extend CARD research funding beyond 2010 or to adopt alternative funding models means that MARD/DST will have only limited experience in the application of its new research management modalities at project end. *The Mission notes that a strong and competent DST is central to successful research governance and management in agriculture and rural development in Viet Nam and **strongly recommends** continues AusAID support to MARD DST beyond CARD completion in March 2010.*

The Mission generally supports the risk assessment and risk responses provided in Appendix 9 of the 2006/07 annual report and 2007/08 work plan, but is concerned that the risk of over extending the TC’s capacity to coordinate the expanding MARD research reform portfolio be brought to the attention of the PCC and quickly resolved. This risk is assessed as high, both by the PMU and the Mission and could be best addressed through additional technical support to assist the DST with its research management reformation. *As noted in Section 2.2.1 the appointment for about 18 months of a young professional, preferably sourced from the international institution selected to provide work experience for DST staff and mentored by the TC, would substantially reduce this risk.*

The Mission also wishes to draw attention to the PDD identified risk that “poor understanding of gender, social and cultural issues will lead to development of

agricultural technologies that are contrary to or neglect the interests of smallholders”. This risk has been identified in the methodology adopted for MARD research prioritization and the Mission **recommends** that the PMU consider including the response identified in Section 2.2.1 in its risk management matrix.

## 2.4 CARD Progress against Program Components and Outputs

The MTR Mission has reviewed progress against CARD Program components and outputs, which are reported in detail in the 2004-2005, 2005-2006 and 2006-2007 CARD annual reports, and considers the overall results to be satisfactory. The conclusions of the MTR on the different CARD Program components and outputs are summarized in Table 1.

**Table 1. TAG comments on CARD progress against Program components and outputs**

Component	CARD Progress Summary and Comments
<b>Component 1. Implementation of collaborative projects</b>	
<i>Objective: To implement collaborative projects that develop technologies and educational or knowledge products that address specific constraints in agriculture; and strengthen Vietnam's human and institutional capacity to develop and apply such products.</i>	Projects under the first (2004) round are approaching completion leading to the implementation of the first project impact assessments in 2007. The project M&E framework is in place, however, additional training is required in cost-benefit analysis. The project monitoring process (primarily self-monitoring and milestone-based payments) is proceeding satisfactorily but has identified the need for project mid-term reviews. The fourth project round (2007) which was targeted on food safety has drawn a reduced response from institutes and a possible fall in quality (as indicated by the TAP recommendations to the PCC), however, this may also reflect the raised expectations of MARD/CARD after four contestable grant cycles. <i>The Mission encourages the TAP/PCC to only support strong fourth round project proposals, with any savings directed toward supporting MARD research governance and management reforms.</i>
<b>Outputs</b>	
1.1 Effective partnerships developed between Vietnamese and Australian agricultural and rural development institutions.	An initial round of awareness training in 2004 provided the foundation for effective partnerships. This has been strengthened through the development and updating of an institutional database and a partnership brokerage service. The emergence of new institutional linkages with each funding is a measure of the success of this approach.
1.2 Collaborative projects implemented effectively.	Three successful CARD funding rounds have been implemented and a fourth initiated, with 32 projects now active. Feedback during the project selection process, mentoring of project team leaders and a high degree of self monitoring of project implementation, linked to milestone based contracts has raised project effectiveness well above Pilot CARD levels. MARD's strong endorsement of CARD project selection and monitoring procedures and their planned adaptation in 2007/08 to meet MARD research management requirements indicates the overall effectiveness of CARD's approach.
1.3 Competencies in generic areas such	The PCC has supported a CARD proposal to delete this

Component	CARD Progress Summary and Comments
as research methodology and preparation of educational curricula developed through Program level activities	output, which will be addressed by generic training provided by government and other donors. The facilitation of R&D priority setting and establishment of thematic institutional networks are included in the new Output 2.6.
<b>Component 2. Program management and governance</b>	
<i>Objective: To efficiently and effectively manage the CARD Program and strengthen the capacity of MARD to manage agricultural technology and knowledge development programs.</i>	In the rapidly evolving Vietnam science environment, the project has moved well beyond the “strengthening” of MARD to manage agricultural research and will deliver a comprehensive suite of policy and institutional reforms; new research governance and management procedures; a research prioritization framework; and incremental staff capacity, to establish the DST as a competent research manager by 2010. <i>The mission perceives a substantial risk that, in realizing this ambitious agenda, the CARD TC will be over extended and <b>recommends</b> the recruitment of additional technical support for DST reform, preferably linked to an international research management institution</i>
2.1 A program management structure is established and operating effectively	PMU/AMC initiatives have led to the restructuring and strengthening of CARD’s governance structure and to a technically robust, transparent and efficient project selection process. PCC meetings are increasingly effective, with active member participation in final project selection and a very supportive attitude to project restructuring to meet emerging institutional, capacity and research needs.
2.2 Projects, identified by Vietnamese institutions, that address the CARD Strategic Framework and meet the Selection Criteria, selected competitively and transparently	The initial CARD Strategic Framework was found to be inadequate to drive project identification and CARD has consequently started a significant undertaking in the development of an R&D Framework and Investment Portfolio. To date the research prioritization of the crop, fisheries and forestry sub-sectors has been completed, the livestock sub-sector prioritization is underway and a policy research prioritization is planned. The R&D Framework and Investment Portfolio is expected to be completed by late 2008. The CARD project selection process has been independently assessed to be technically robust, transparent and efficient. The supporting Operations Manual is comprehensive and effective. <i>The Mission <b>encourages</b> CARD/MARD to incorporate water, disaster prevention and rural enterprise prioritization in the research framework and to support participatory implementation of research priorities, in collaboration with social research institutes where appropriate. The Mission also encourages CARD to support MARD in a regional adaptive research prioritization exercise (as identified in the Milestone 14 report) with a strong focus on participatory research delivery.</i>
2.3 Progress of CARD projects monitored systematically	An updated M&E Framework is detailed in the Milestone 15 report. A project M&E Network has been established and PMU/DST M&E competencies are being enhanced through mentored on-the-job responsibility for evaluating CARD project milestone achievements. Systematic visits to projects are operational with all round one projects visited in 2006 and a program of monitoring visits, mid

Component	CARD Progress Summary and Comments
	<p>term reviews and evaluation assessments planned for 2007/08. Work has commenced on the design and implementation of the Program M&amp;E and with monitoring scientist's perceptions of the change process in MARD science management. The PMU is collaborating with VAMES, the AST TA and ACIAR on M&amp;E issues. <i>A synthesis assessment of the lessons learnt in the research process across all of the 40 or so CARD projects will be extremely valuable for understanding the overall effectiveness of such collaborative research programs and the Mission recommends that this be planned and implemented.</i></p>
2.4 Establishment of an effective Research Information Management System	<p>The CARD has developed an effective website on which project information is posted as it becomes available and some projects have developed their own websites. While there are considerable delays in posting project information, this reflects constraints with document translation, primarily by contractors, and not any systemic failure. CARD projects have been regularly profiled in the Vietnamese press and mass media. CARD might usefully publish the project descriptions and final reports of Pilot CARD round, the outcome of which it monitored. Two workshops with the presentation of poster papers, originally planned for 2006/07, are now planned in 2007/08. <i>Three newsletters have been published, however, only 2 are currently available on the web.</i></p>
2.5 An efficient system for project contracting, management, monitoring and reporting is operational	<p>While there has been some difficulty in negotiating milestone based contracts with Australian institutions, the CARD has developed an efficient contract format with only one bidder electing not to proceed with an approved project. The requirement of contract acceptance as a condition of full proposal submission will reduce delays in contract negotiations. CARD reporting to AusAID on project progress and financials is very satisfactory. The <i>Mission encourages the PCC to consider the possibility of contracting 2-3 projects selected under the final CARD round directly to the participating Vietnamese institution. Experience this gained would be invaluable in building the future DST research management framework, including the revision of Decision 36.</i></p>
2.6 Research Institutional Strengthening in MARD and the Department of Science and Technology (DST).	<p>The CARD Milestone 14 report provides a comprehensive analysis of the changing legislative environment and the policy, institutional and operational reforms required for the restructuring of research governance and management within MARD/DST and its implementation by the MARD research institutes. CARD has supported IPSARD with the development of a new research policy for MARD and has developed Corporate Plans for both the DST and VAAS. Twinning relationships are being negotiated for IPSARD and the two research institutes. The revision of the DST research management framework is planned in 2007/08, contingent on the approval of the aforementioned documents. <i>The Mission is concerned that the DST reform requirements will over extend the resources of the CARD Technical Coordinator and recommends the employment of additional technical assistance, preferably sourced through international research management institutions</i></p>

Component	CARD Progress Summary and Comments
	<i>linked to DST capacity building.</i>

## 3 Strategic Issues for MARD Research in the Remaining CARD Period

---

### 3.1 Introduction

---

The discussion presented in Section 1 identified the dynamic and evolutionary character of the specific research management environment and the wider agriculture and rural development policy context in Viet Nam. The flexibility of CARD's response to adapt their activities in response to this changing context has been appreciated; such flexibility remains essential for the remaining period of the CARD Program. This issue is discussed in this Section, in which a number of strategic issues that emerged during the consultations undertaken by the MTR are reviewed and recommendations for action in response to these issues are made.

The terms of reference of the MTR included the consideration of wider issues of concern in relation to research on agriculture and rural development, not just the specific activities being addressed by the CARD Program. A number of issues were identified during the MTR that have important implications for the development of research in agriculture and rural development over the next 2-3 years. Many are long-term and structural in character, but addressing them cannot wait for the long-term as they are directly and significantly affecting the development of the emerging system for the management of research within MARD and associated research institutes.

Not all of these issues can or should be addressed by the CARD Program, which has a limited mandate and resources. The discussion presented here distinguishes between issues that the MTR feels can be addressed, at least in part, by CARD and issues that are important but that cannot reasonably be addressed within the capabilities and resources available to the CARD Program. Solutions for these wider issues need to be sought through other mechanisms.

### 3.2 Strategic Issues that can be Addressed through CARD

---

There are a number of issues that the MTR feels can be addressed within the existing resources of the CARD Program. This reflects an awareness of the limited extent of flexibility that is possible with the CARD budget, so the range of options available for adapting the existing plans is limited. The options and recommendations outlined here are in part an adaptation of existing planned activities to ensure that some key strategic concerns are addressed, but there are also new strategic initiatives that the MTR feels are both essential and affordable within existing resources.

The first issue is the need to **clarify the implications of Decree 115** and identify the changes in structure and management that research institutes will need to make to respond to the new research environment. MARD has initiated actions to request that all research institutes should submit proposals for how they will manage the transition to becoming autonomous, self-managed institutes, but it is clear that this process needs further clarification and support. This includes actions to ensure that all research institutes, and not just those that CARD is presently interacting with, are involved in this process. A structured dialogue process that follows a sequence of clarification and awareness-raising amongst the full set of MARD research institutes

needs to be established and implemented. This dialogue can be **facilitated** by CARD through the provision of appropriate expertise to catalyze and coordinate the dialogue. This process should start as soon as possible and should be planned as a periodic exercise for informing and updating the research institutes on the new research management system as it is developed.

The second issue is, as discussed above, actions to ensure that there is an effective **“lessons learnt” assessment** exercise that synthesises experiences with regard to the research management process of CARD across all of the 40+ research projects funded through the program. The benefits and constraints of the international partnerships that have been central to the CARD research project portfolio should in particular be examined in this assessment. Clear and objective measures of the effectiveness and sustainability of improvements in the research skills and capabilities of the researchers and research institutes should be developed and applied in the assessment. This can and should also be seen as an essential part of the final program assessment and should be planned and implemented within the M&E system of CARD.

The third issue is intended to address the concerns over the scope and comprehensiveness of the research prioritisation process. It is to **execute a rural research and development scoping exercise**, coordinated through IPSARD that has the following characteristics:

- It should develop a wider and long-term vision of rural development that reflects the priorities in the national SEDP and the MARD 5 Year Plan. This includes the central issue of livelihood diversification and actions to catalyse an “economic shift” in rural areas as well as poverty and geographical targeting to reflect the changing social and geographical patterns of poverty and development in rural areas. The basis for identifying the scope of the exercise should be the central goals and objectives of the SEDP and MARD 5 Year Plan, as discussed in Section 1.2, above.
- Issues such as water resources and services, disaster mitigation, non-agricultural development and the role of the private sector that are not at present adequately covered should be specifically addresses in scoping out future research priorities. It is not proposed that a full prioritisation exercise be undertaken for these research issues, at least not from the resources provided through CARD, as this beyond the Program’s means. The analysis in the scoping exercise should identify the main research challenges in relation to the role of these additional thematic areas in the attainment of the overall goals and objectives of the 2006 – 2010 SEDP and the MARD 5 Year Plan.
- The scoping should have a strong focus on local-level, community-based development and should include the discussion of how modern approaches to participatory action research can be more effectively integrated into future MARD-supported research. In developing this issue, the scoping should pay particular attention to the wealth of international experiences and established models of good practice in relation to participatory action research. There are numerous standard models available in the international field. Consideration of which of these models are most appropriate to Vietnamese conditions should be central to the discussion.

- The scoping exercise should look to broaden the scope of research collaborations, in particular looking to include social science research capabilities such as those in institutes under the Vietnamese Academy of Social Sciences and to also include collaboration with NGOs experienced in community-led development. The skills and capabilities of the MARD research institutes have historically been focused on scientific research; this focus should remain and it is specifically not suggested that these institutes should attempt to acquire comprehensive multi-disciplinary capabilities. However it is important that these institutes recognise the benefits of a broader multi-disciplinary approach. Effective research into many aspects of agriculture and rural development necessitates a range of skills that specifically includes social and economic capabilities and experience in community-level mobilisation. This is most effectively obtained through partnerships with organisations within Vietnam where such capabilities exist.
- The scoping should include a pilot exercise that links IPSARD, a research institute such as the Northern Mountain Agricultural and Forestry Research Institute that is centrally concerned with these wider issues and a wider partnership that includes social science research institutes and NGOs, as described above.

The development and implementation of this scoping exercise needs to be worked out, with IPSARD to taking the lead assisted by suitable technical assistance **supported** by the CARD program. **Terms of reference** for the scoping should be prepared as soon as possible, based on the structure and content discussed above.

### 3.3 Strategic Issues beyond CARD's Mandate

---

It was noted above that there are a number of issues identified by the MTR that are important for the coming 2-3 years, but that cannot reasonably be addressed by CARD. These are all issues that will directly and materially affect the future effectiveness of research into agriculture and rural development. Most of these points were identified as areas of concern by several stakeholders during the MTR Mission. It is recommended that they be discussed by DST with CARD and other relevant stakeholders with a view to identifying the most effective strategy to address them. These more generic issues of concern are:

- The **sustainability** of the research management and monitoring and evaluation system being developed by CARD is contingent upon GoV committing resources for its long-term operation. MARD recognises this and has taken actions to strengthen DST's staffing capabilities, but the long-term implications of the new systems need to be established. The scale of resources needed should be worked out and commitments that the government will provide an adequate budget to ensure the future sustainability of the research management and monitoring and evaluation systems sought. In making such calculations, cost effectiveness should be a central criterion and, should the likely costs of the recommended systems be too high, alternative less costly options should be identified and discussed. Whatever the final decision reached, it is essential that MARD has a very clear picture of what it needs in terms of research management and monitoring and what it will get for the resources that are allocated to these central tasks.

- The enhancement of research management capabilities in the **research institutes**, including the institutional changes needed to respond to Decree 115 and the revision of MARD Decision 36, is crucial for the future but cannot be developed by CARD. It is recognised that all of the institutes are taking some actions to respond to the changing system, but the coherence and effectiveness of these responses is not clear. The changes that the move from an input-based to an output-based system of research management entails are major and will affect all aspects of the operation of the research institutes. Assistance in developing strategies to make the needed changes will be important in avoiding disruption in future research programs and MARD DST should consult with the institutes and other stakeholders on how such support can be provided.
- The development of wider **international research collaborations**, especially across the ASEAN region, would add value to the experiences with Australian/New Zealand institutes. A strategy to develop such wider collaborations needs to be developed. This should be needs-led and institution-based, but it is an area where the wider donor community in Viet Nam could provide strategic support.
- Limited **human resources** were identified as a major concern by all stakeholders. This is a long-term issue, but all institutes should undertake a needs assessment as a matter of priority. The issue is long-term but actions are needed in the short term to in particular identify where new capabilities are needed for responding the new research management system. CARD could assist by providing guidance on the methodology and content of such a needs assessment exercise.
- Both GoV and donor policies (including the Government of Australia White Paper on Australian Aid) envisage future support to reflect principles in the Hanoi Core Statement of better **harmonisation and working through government systems**. This is potentially challenging for the research field and there is a need to identify the modalities through which such support could be provided in the immediate future. It is recommended that this exercise should be implemented independent of the CARD program, which does not have the orientation or capabilities for such an undertaking. Such an exercise should involve the wider donor community in Viet Nam with interests in research in agriculture and rural development, but it is recommended by the MTR that the Australian Government should take the lead in convening the collaboration amongst the donors.

## 4. Beyond CARD: Supporting Research in Agriculture and Rural Development in the Future

---

The MTR discussed the main areas of support that will be needed following the completion of the CARD program in the spring of 2010. Although future casting in such a rapidly-changing context is difficult, what is clear is that there will still be a number of challenges that will need to be addressed in the development of the research system for agriculture and rural development in Viet Nam. The process of change that is taking place at this time will still not be complete however effective and sustained the efforts made over the next 2-3 years are. Similarly, the policy context for rural development that the research is intended to support will change dynamically as Viet Nam develops and issues of social equity and environmental sustainability are more fully embedded into the policy process.

The need for future support beyond the CARD Program period is clear; what has to be resolved is the scale and focus of such support. The MTR clearly concludes that the sustained support of the Australian Government to research in agriculture and rural development beyond CARD would be valued and valuable. The support provided to date has been of crucial importance in ensuring that research capabilities have improved and been able to adapt to a changing policy and research management environment. Building on this heritage would also closely align with the focus and priorities in the draft VACS, discussed above, so long as both the scope and modalities of the support continue to adapt to be relevant in relation to the principles set out in the strategy.

The MTR gave considerable thought to the direction of future support and discussed the issue with a wide range of stakeholders. Based on this process, the Mission identified the following issues as potentially where significant needs for future support will lie:

The **first priority** for future support should be to continue to engage in the development of **DST's research management system**. This will be the keystone on which MARD's research system is based and the whole process of research in agriculture and rural development will not reach its potential if this focal management system is not effective. Ensuring its further development and sustainability should be seen as a focus of external assistance to the sector and the MTR strongly **recommends** that substantial and sustained support to the development of DST's research management capacities should be the initial focus of any future AusAID support to research in MARD. The review teams considers future support is necessary to secure and consolidate the investment currently being made in DST. Whilst the constraints on making firm commitments at this stage are recognised, it is further **recommended** that a dialogue between MARD and AusAID should be initiated at the earliest opportunity to establish the scope of and resourcing needed for future AusAID support beyond the CARD Program period.

The continued **direct funding of research projects** is an activity that should and will continue in the future, but there is a need for a clearer distinction between the relative roles of ACIAR in the support of research activities and AusAID whose principal focus should be on institutional strengthening and capacity development for research management in DST and beyond. The synergy between the relative roles of AusAID and ACIAR should be based on principles of harmonisation and working through the central MARD research priorities and research management system. This is essential for close alignment with the principles of the Hanoi Core Statement and the overall approach set out in the draft VACS.

The experience in the development of **twinning arrangements** between research institutes from Viet Nam and ones from Australia and New Zealand has been positive and is something that all parties would like to see continue to develop into the future. Identifying which partnerships would be valuable as long-term arrangements is an issue and it is **recommended** that the scope and focus of such long-term twinning should be further explored with an eye to seeing where and how they should be supported beyond the CARD Program period.

Three other potential areas of support were identified, but these are not prioritised as the relative balance between them in 2010 is not clear at this time. The development of a support package to these activities should be worked out through collaboration between a group of interested donors in line with Hanoi Core Statement principles, but the MTR would **recommend** that AusAID take the lead in establishing such a support package in conjunction with the ADB that should have a major project supporting research capacity development in MARD at that time. These three additional areas are:

- Wider and longer-term research and analysis on linking agricultural and rural development research more effectively into the achievement of national priority development policies. This should include substantial community-based pilots that examine different livelihoods development options.
- Support to the development of the research management capabilities of the MARD research institutes to ensure that they are able to effectively operate in the new research environment following the full implementation of Decree 115 and supporting MARD Decisions.
- Human Resource Development across the whole system and, in particular, the development of capabilities to plan and manage collaborative multi-disciplinary research that achieves the highest international standards. The future effectiveness and relevance of research in agriculture and rural development in Viet Nam is entirely contingent upon the continued strengthening of the research capabilities of the staff of research institutes and the forging of collaborative partnerships within Viet Nam so that multi-disciplinary research that meets international standards is the norm rather than the exception. This involves both the deepening of existing areas of expertise to bring Vietnamese researchers up to international standards and, in some cases, “re-skilling” to develop new areas of research competence that are essential for participating in emerging research fields.

## Annex 1: Mid-Term Review Aide Memoire

### I. Introduction and Overall Findings

1. The Mid-Term Review (MTR) of the Collaboration for Agriculture and Rural Development (CARD) Programme was undertaken by John Soussan (team leader), Garry Smith and Geoff Morris. The CARD Programme is a collaboration between the Governments of Viet Nam and Australia and is implemented by the Ministry of Agriculture and Rural Development (MARD) of the Government of Viet Nam (GoV).

2. The main overall finding of the MTR is that the CARD Programme is being implemented effectively and to a high standard, with all stakeholders expressing satisfaction with the overall effectiveness and appropriateness of the programme's amended objectives and activities. The Programme is being implemented in a period of significant change and development in both the overall structure and focus of MARD and the approach by GoV-to science and technology research. The programme has responded to this dynamic environment in a flexible manner that is appreciated.

3. This includes a significant shift in the focus and scope of activities to include an emphasis on institutional support to the development of research management capabilities in MARD and, in particular, in the Department of Science and Technology (DST). The MTR fully endorses this shift in emphasis as being appropriate and effective and, indeed, the change will significantly enhance the overall impact of CARD on the contribution of research to agriculture and rural development in Viet Nam.

4. Issues that need to be addressed system-wide so as to ensure the continued effectiveness and sustainability of changes developed under the CARD Programme are the long-term resourcing of research management, both within DST and in the research institutes, the development of a wider network of research partnerships and collaborations in Viet Nam and the continued enhancement of human resource capabilities in relation to both research management and international-standard scientific and research skills.

### II. Assessment of Implementation and Performance

5. The assessment of the implementation and performance of CARD covers the two main blocks of activities of the programme in the amended programme structure. A detailed review of progress towards each of the specific activities in the CARD work programme is included in the MTR main report. The two activity blocks discussed here are:

- The programme of funded research projects and development of the process for project selection, management and monitoring and evaluation.
- Support provided to the development of research management capabilities in DST and elsewhere.

6. A total of 32 **research projects** have been funded at the time **of the review**, **with a further 8 or 9 to be funded** in the final round of project funding. There is inevitably some variability, but overall the quality and effectiveness of implementation of the research projects appears to be good. The evidence available suggests that most projects will meet their objectives within budget and largely on

time. The “twinning” arrangements between Vietnamese and Australian/New Zealand research institutes was valued by all parties and seen as an important mechanism for enhancing the experience and capacities of Vietnamese researchers in relation to international standards of research practice.

7. The research programme management system, including the preparation of proposals, selection of projects, management of the projects and monitoring and evaluation, is effective, appropriate and widely appreciated. It represents a major improvement on system for research programme management currently applied within MARD. The key principles of the system, captured in the Milestone 14 report, are understood by all parties and will, as far as possible, be adapted and incorporated into the overall MARD research management system that is being developed by DST with CARD assistance.

8. As noted in the Milestone 14 report, these reforms will require the close collaboration of the MARD DST, the MARD Departments of Management and of Finance and the MARD Decree 115 working group to achieve the considerable revision of MARD regulations required to create a favorable environment for the introduction of competitive, milestone-based contracting procedures and private sector participation in research delivery. This may require the support of specialized national experts (legal, accounting, audit, institutional) to advise MARD on legally and constitutionally robust reform strategies.

9. The Mission notes that recommendations made by the 2006 CARD Technical Advisory Group (TAG) Assessment, to test new CARD-financed contractual relationships between Vietnamese and Australian institutions, have not been adopted. The mission understands that the reasons for this decision, however, given that Decree 115 opens the possibility for international scientific participation in national research projects, the Mission **recommends** that the PCC to consider contracting 2-3 projects selected under the final CARD round directly to the participating Vietnamese institution, which would then sub-contract the support of international scientific expertise, training and laboratory services. The additional work this might entail could be minimized if it involved willing Vietnamese and Australian institutions, and the experience gained would be invaluable in building the future DST research management framework, including the revision of Decision 36. The Mission also encourages the TAP/PCC to only support strong fourth round project proposals, with any resulting savings directed toward supporting MARD research priority setting, governance and management reforms.

10. A synthesis assessment of the lessons learnt in the research process across all 40 projects will be extremely valuable for understanding the overall effectiveness of such collaborative research programmes. The MTR **recommends** that such an assessment is undertaken by the programme before programme completion.

11. The **support to research management capacity development** consists of five principle elements. The **first** is the development of a research policy and strategy for MARD, the “Renovation of Management of Science and Technology for Agriculture and Rural Development”, prepared by IPSARD with CARD support. This is close to completion and appears to be effective in scope and focus.

12. The **second** is the preparation of a Corporate Plan that clearly defines DST roles and functions and expected results for the next 3 to 5 years. This is similarly

close to completion and is appreciated by DST as being the basis for the clarification and restructuring of their responsibilities for and capabilities in research management.

13. The **third** is support to the development of the Research Management Unit in DST. The main efforts here will be in the remaining programme period once the policy, strategy and corporate plan have been institutionalised. The approach and plans to ensure that the Unit will have effective protocols and procedures for research management by the end of the CARD programme, as detailed in the comprehensive Milestone 14 report, are realistic and appropriate. The full effectiveness and sustainability of the system is contingent upon the capacity building and long-term resourcing of the unit by MARD. The Mission strongly **recommends** that CARD appoint a medium term international technical advisor to the DST for a period of about 18 months to support the reform process. Noting the plan to second DST staff to research management institutions in Australia and/or New Zealand following the reform of Decision 36, the Mission further **recommends** that CARD consider identifying a young professional from one of these research management institutions to fulfill this task under the mentoring of the CARD Technical Coordinator. This would ensure continuity and momentum in the major thrusts of the research reform program while accelerating capacity development for future sustainability.

14. The **fourth** is the development of the DST monitoring and evaluation system. Once again, what is planned is appropriate and CARD support is appreciated, but much remains to be done in this field and the long-term effectiveness of the M&E system, which is critical for overall research management, is dependent on the resourcing of M&E by MARD.

15. The **fifth** and final area of activity is research prioritisation. This is the issue that concerns the MTR the most in relation to the activities of CARD. The actions taken represent a significant step forward and have raised the profile of research prioritisation as a key issue for research management. They have focused on prioritisation in four traditional sectors: crops, livestock, forests and fisheries, with this justified in relation to these sectors being the most relevant to the attainment of the CARD goal, which is *“to increase the productivity and competitiveness of Vietnamese smallholder agriculture and related rural enterprises”*. There is some merit in this, but the extent to which the focus on smallholder agriculture and related rural enterprises is reflected in the prioritisation is not clear.

16. Reservations were expressed about the extent to which the approach has taken into account both local level research and livelihoods development issues and long-term strategic issues with regard to poverty targeting and integrated rural development. Similarly, other sectors such as disaster mitigation, water resources and rural enterprise development have not been covered to date. It is, of course, essential that the scope of the research prioritisation is confined to those aspects of rural development that fall within the jurisdiction of MARD, but this jurisdiction is broader than the range of issues considered in the research prioritisation exercise. As such, the actions on research prioritisation are an important first step but the MTR notes that there are currently no plans to broaden the scope of research prioritisation to cover wider rural and livelihoods development issues and missing research themes that fall within the overall jurisdiction and policy priorities of MARD. The Mission **recommends** that CARD to explore options that would enable stakeholders to sharpen their focus on poverty alleviation in the forthcoming priority setting meetings

for livestock and policy research, that could subsequently be institutionalized within DSTs research management processes.

17. The mission also notes that the preparation of the Agriculture Research Framework, Investment Portfolio and Medium Term Research Plan is scheduled prior to the preparation of the policy research priority plan. As the policy research is an important component of the Agriculture Research Framework and likely to inform the overall choice of research priorities and, considering that the research framework is unlikely to be applied before 2009, the Mission **recommends** that CARD allow some slippage with the development of the research framework and plan to allow for policy research prioritization. This may also permit MARD, using its own resources, to conduct priority setting in other important areas such as water utilization prior to the finalization of the framework document.

### **III. Strategic Issues of Concern for the Remaining CARD Period**

18. The terms of reference of the MTR included the consideration of wider issues of concern in relation to research on agriculture and rural development, not just the specific activities being addressed by the CARD Programme. A number of issues were identified during the MTR that have important implications for the development of research in agriculture and rural development over the next 2-3 years. Not all of these issues can or should be addressed by the CARD Programme, which has a limited mandate and resources. The discussion presented here distinguishes between issues that the MTR considers can be addressed, at least in part, by CARD and issues that are important but that need to be addressed through other mechanisms.

#### **A. Strategic Issues that can be Addressed through CARD**

19. The issues that the MTR feels can be addressed within the existing resources of the CARD Programme reflect an awareness of the limited degree of flexibility that is possible with the CARD budget. In part they are an adaptation of existing planned activities to ensure that concerns are addressed, but there are also new strategic initiatives that the MTR feels are both essential and affordable within existing resources.

20. The first issue is the need to, firstly, clarify the **implications of Decree 115** and identify the changes in structure and management that research institutes will need to make to respond to the new research environment. This includes actions to ensure that all research institutes, and not just those that CARD is presently interacting with, are involved in this process. The Mission **recommends** that CARD conducts a structured dialogue process of clarification and awareness-raising of Decree 115 implications amongst the full set of MARD research institutes.

21. The second issue addresses the concerns over the scope and comprehensiveness of the research prioritisation process. The Mission **recommends** that CARD execute a **rural research and development scoping exercise**, coordinated through IPSARD, that has the following characteristics:

- It should develop a wider and long-term vision of rural development that reflects the priorities in the national SEDP and the MARD 5 Year Plan. This includes the central issue of livelihood diversification and actions to catalyse an “economic shift” in rural areas as well as poverty and geographical

targeting to reflect the changing social and geographical patterns of poverty and development in rural areas.

- Issues such as water resources and services, disaster mitigation, non-agricultural development and the role of the private sector that are not at present adequately covered should be specifically addresses in scoping out future research priorities.
- The scoping should have a strong focus on local-level, community-based development and should include the discussion of how modern approaches to participatory action research can me more effectively integrated into future MARD-supported research.
- The scoping exercise should look to broaden the scope of research collaborations, in particular looking to include social science research capabilities such as those in institutes under the Vietnamese Academy of Social Sciences and to also include collaboration with NGOs experienced in community-led development.
- The scoping should include a pilot exercise that links IPSARD, a research institute such as the Northern Mountain Agricultural and Forestry Research Institute that is centrally concerned with these wider issues and a wider partnership.

22. The development and implementation of this scoping exercise needs to be worked out, with IPSARD to taking the lead assisted by suitable technical assistance supported by the CARD programme. The process for the development of such a scoping exercise is further discussed in the Mission report.

Deleted:

## B. Generic Issues of Concern

23. It was noted above that there are a number of issues identified by the MTR that are important for the coming 2-3 years, but that cannot reasonably be addressed by CARD. These more generic issues of concern are:

- The **sustainability** of the research management and monitoring and evaluation system being developed by CARD is contingent upon GoV committing resources for its long-term operation. The scale of resources needed should be identified in the 2009 and subsequent DST work programmes and such commitments sought.
- The enhancement of research management capabilities in the **research institutes**, including the institutional changes needed to respond to Decree 115 and the revision of MARD Decision 36, is crucial for the future but cannot be developed by CARD.
- The development of wider **international research collaborations**, especially across the ASEAN region, would add value to the experiences with Australian/New Zealand institutes. A strategy to develop such wider collaborations needs to be developed.
- Limited **human resources** were identified as a major concern by all stakeholders. This is a long-term issue, but all institutes should undertake a needs assessment as a matter of priority. CARD could assist by providing guidance on the methodology and content of such a needs assessment exercise.

- Both GoV and donor policies envisage future support to reflect principles in the Hanoi Core Statement of better **harmonisation and working through government systems**. This is potentially challenging for the research field and there is a need to identify the modalities through which such support could be provided in the immediate future. It is recommended that this exercise should be implemented independent of the CARD programme, which does not have the orientation or capabilities for such an undertaking.

#### IV. The Future: Potential Support Areas after CARD

24. The MTR discussed the main areas of support that will be needed following the completion of the CARD programme in the spring of 2010. Although future casting in such a rapidly-changing context is difficult, the MTR identified the following issues as potentially where significant needs for future support will lie.

25. The **first priority** for future support should be to continue to engage in the development of **DST's research management system**. This will be the keystone on which MARD's research system is based and donor support directed. Ensuring its further development and sustainability should be seen as a focus of external assistance to the sector and the MTR strongly **recommends** that support to research management capacity in DST should be the initial focus of any future AusAID support to research in MARD.

26. The continued **direct funding of research activities** is an activity that should and will continue in the future, but there is a need for a clearer distinction between the relative roles of ACIAR in the support of research activities and AusAID whose principal focus should be on capacity development for research management in DST and beyond. The synergy between the relative roles of AusAID and ACIAR should be based on principles of harmonisation and working through the central MARD research priorities and research management system.

27. Three other potential areas of support were identified, but these are not prioritised as the relative balance between them in 2010 is not clear at this time. The development of a support package to these activities should be worked out through collaboration between a group of interested donors in line with Hanoi Core Statement principles, but the MTR would **recommend** that AusAID take the lead in establishing such a support package in conjunction with the ADB, which also has a major project supporting research capacity development in MARD. These three areas are:

- Wider and longer-term research and analysis on linking agricultural and rural development research more effectively into the achievement of national priority development policies. This should include substantial community-based pilots that examine different livelihoods development options.
- Support to the development of the research management capabilities of the MARD research institutes to ensure that they are able to effectively operate in the new research environment following the full implementation of Decree 115 and supporting MARD Decisions.
- Human Resource Development across the whole system and, in particular, the development to research capabilities in multi-disciplinary research that achieves the highest international standards.

## Annex 2: Persons Met

Person Met		Position
AusAID		
	Mr. Kerry Groves	Counsellor
	Mr. Nguyen Quoc Viet	Program Manager
CARD Program Office		
	Ms. Nguyen Thi Khoa	Program Coordinator, CARD
	Mr. Keith Milligan	Technical Coordinator, CARD
	Mr. Stewart Pittaway	Consultant, CARD
Ministry of Agriculture and Rural Development		
	Mr. Bui Ba Bong	Vice-Minister, MARD
	Mr. Le Van Minh	Director General, International Cooperation Department (ICD)
	Ms. Hoang Thi Dung	Vice-Director, ICD
	Ms. Nguyen Thu Hang	Program Officer, ICD
	Mr. Trieu Van Hung	Director, Department of Science and Technology (DST)
	Mr. Nguyen Viet Hai	
	Mr. Trieu Van Hang	Department Head, DST
	Mr. Pham Tung Lam	Staff member, DST
	Mr. Do Xuan Lan	Staff member, DST
	Mr. Dang Khanh	Staff member, DST (Ex. MoFi)
	Assoc. Prof. Duong Van Xanh	Director General, Agricultural Projects Management Board
	Mr. Gunnar Peder Jakobsen	Team Leader, ADB AST TA 4619
	Dr. Thuan	Consultant, ADB AST TA 4619
	Dr. Dang Kim Son	Director, Institute of Policy and Strategy for Agriculture and Rural Development (IPSARD);
	Mr. Pham Bao Duong	Head, IPSARD Policy and Strategy Research Division
	Ms. Pham Thanh Nga	IPSARD International Cooperation Department
	Ministry of Planning and Investment	
NISPASS		
	Mr. Bach Tan Sinh	Acting Director, Department of Science Policy Studies
	Mr. Tran Quoc Khanh	Head, Human Resources Development Department
Vietnam Academy of Agricultural Sciences		
	Nguyen Van Bo	President, Vietnam Academy of Agricultural Science (VAAS)
	Ass. Prof Nguyen Van Tuat	Director General, Food Crop Research Institute, VAAS
ADB		
	Mr. Ahsan Tayyab	Senior Natural Resource Management Specialist

## **Annex 3**

### **COLLABORATION FOR AGRICULTURE AND RURAL DEVELOPMENT (CARD) PROGRAM – VIETNAM TERMS OF REFERENCE FOR THE MID-TERM REVIEW (MTR) MISSION 20 – 26 August 2007**

#### **1. Background**

In 1999 the Government of Vietnam (GOV) and Government of Australia (GOA) agreed to a pilot program to build capacity in the agriculture and rural development sector. This initiative, known as the Capacity Building for Agriculture and Rural Development (CARD) Program, had the objective of enhancing Viet Nam's capacity for teaching and research in agriculture and rural development, through the development of productive partnerships between education, research and training institutions in Viet Nam and in Australia. This was expected to lead to support for poverty reduction efforts in the agricultural and rural development sector and help maximise the sustainability of Australian investments over the medium and longer term.

Pilot CARD (from 2000 to 2002) was designed as a responsive aid mechanism in order to test i) the interest and support of the agricultural research community both in Australia and in Viet Nam, and ii) the quality of results produced through the selected activities. A total of \$8 million was made available under the Pilot CARD Program for a total of twenty eight activities in the two financial years – 2000/01 and 2001/02.

In view of the success of the Pilot CARD Program, AusAID developed a multi-year Collaboration for Agriculture and Rural Development (CARD) Program following a review and design process undertaken during October – December 2002. CARD Phase II commenced in early 2004. Its goal is to increase the productivity and competitiveness of Vietnamese smallholder agriculture and related rural enterprises and its purpose is to develop and apply agricultural knowledge and technologies which address constraints to productivity and competitiveness. It has a total value estimated at A\$28 million; the total AusAID contribution is A\$19 million with the amount available for collaborative research projects of A\$13.25 million. The Program is implemented from March 2004 – March 2010, with 4 rounds of collaborative research projects over its life. Vietnamese and Australian research entities jointly submit research project concepts which are appraised by Vietnamese and Australian technical specialists. Successful proposals receive funding from CARD and are implemented by the project applicants.

The Program Coordination Committee (PCC) meeting in July 2005 approved the proposal for training in development of the Research and Development (R&D) Framework for Ministry of Agriculture and Rural Development (MARD), Ministry of Fisheries (MoFi) and an Investment Portfolio for CARD to help MARD develop a R&D Priority Framework as a basis for GOV research funding and resource allocation at a more strategic level. The Technical Advisory Group (TAG) mission in August 2006 considered the achievements of the CARD Program impressive and

supported the emerging shift toward a proactive CARD involvement in research institutional strengthening within MARD and MoFi.

It was agreed at the PCC meeting in April 2007 that the number of projects in the 2007 Round would be reduced with an aim to save about \$1 million of Trust Fund for governance Technical Assistance (TA) support, including twinning relationship, work attachments and linkages between Vietnamese and Australian/New Zealand Science and Technology (ST) organisations/institutes. Further institutional strengthening within the Department of Science and Technology (DST) and greater engagement from DST are envisaged, both in the reform process and in priority setting and management of M&E processes. For the next round CARD Projects, more priority should be directed to some new research areas in the Beyond-WTO period, e.g. food safety, value chain, post-harvest.

In line with its Five-Year Socio-Economic Development Plan (5Y-SEDP) 2006-2010, MARD continues implementing the reform of its DST along with the restructuring at the research institution level. In order to assist MARD with this, at MARD's request AusAID has approved additional technical and financial resource within CARD for R&D governance and assistance in management reform. Two short term consultants - an Agriculture Research Policy & Strategy Specialist, and an Agriculture Research Institutions Specialist have been recruited and worked with the CARD Program Management Unit (PMU) on related issues in close collaboration with the Directors General of Institute of Policy and Strategy for Agriculture and Rural Development (IPSARD) and DST. The products of the consultancy included:

- A stakeholder-owned agricultural research strategy for Viet Nam's Agriculture and Rural Development (ARD) sector,
- A policy research framework for the Vietnamese agricultural sector, and
- Capacity building within the IPSARD to facilitate research prioritization processes.

## **2. Objectives of the MTR mission:**

- To assess progress and implementation performance against current CARD objectives;
- To assess ways and opportunities for CARD to assist MARD with the implementation of its R&D governance and institutional reforms in light of changes in science and technology policy and strategy in Vietnam, in close linkage with research projects assisted by the Australian Center for International Agricultural Research (ACIAR) and those activities funded by other donors; and
- To provide recommendations on how future assistance, through CARD and beyond CARD, should be provided to MARD for enhancing long-term sustainability and effectiveness of CARD as well as ensuring Australian Whole-of-Government (WOG) approach for overseas aid program.

## **3. MTR members include:**

- Mr John Soussan, Policy and Resource Specialist, Team Leader
- Mr Garry Smith, Rural Development Specialist

- Mr Geoff Morris, ACIAR Country Manager

In addition to the MTR Team members, for the purpose of adding value to the work of the MTR Team, representatives from MARD and AusAID will take part in the MTR mission, i.e. in the ongoing meetings and field visits throughout the mission, supporting mission organisation and report preparation. These participants will include:

MARD:

- 
- ICD (International Cooperation Dept.): Mrs Hoang Thi Dung, Deputy Director (TBC)
  - DST: Dr Trieu Van Hung, Director (TBC)
  - IPSARD: Dr Dang Kim Son, Director (TBC)

AusAID Hanoi:

- 
- Mr Simon Cramp, First Secretary (Development Cooperation), AusAID Hanoi
  - Mr Nguyen Quoc Viet, SPM, Rural Development Sector, AusAID Hanoi

#### 4. Scope of Services

##### **Program Progress Review**

*Chief contribution by: Garry Smith*

- Assess the quality of the Annual Report 2006-2007, and the Annual Plan 2007-08 and its appropriateness and feasibility within current operating context
- Assess appropriateness and feasibility of the options for reform (CARD Milestone 14 Report)
- Assess lessons learned from CARD projects and the CARD strategy for project impact evaluation and the likelihood that this will provide a realistic assessment of impact at the project and program levels.
- Assess the extent to which CARD project selection processes are relevant to and influencing on GOV practice and provide recommendations for improvements and alignment with GOV systems and procedures
- Assess the extent of coordination and complementarity of CARD and ACIAR funded projects and other donor-provided projects/programs
- Review timeliness of mobilisation and utilisation of AMC and local counterpart resources
- Review the risk matrix in light of current and expected risks and provide appropriate recommendations
- Provide assessment of how can CARD best assist DST to use available experience for developing and implementing an efficient and effective M&E system for the purpose of improving MARD/DST systems, and how MARD should ensure greater engagement from DST in management of the M&E processes

## **Program Appropriateness and future assistance to MARD**

*Chief contribution by: John Soussan; Geoff Morris*

- Critically assess the extent of appropriateness of CARD goal, objectives, outputs and outcomes, with recent proposed changes in current operating environment within MARD, for a future direction of CARD
- Assess effectiveness and efficiency of the program in meeting GOV ARD strategy objectives, as well as integration and alignment with GOV research programs
- Provide assessment of how CARD should and could further align with relevant Vietnamese and Australian government strategies
- Assess how CARD will best fit within the suite of other external assistance to the sector including but not limited to initiatives by ACIAR, ADB projects, and other programs
- Provide assessment of the extent of required GOV commitment and support for the program in order to meet objectives of the recent proposed changes to the program
- Assess the requirements for MARD in and impact of CARD on the building of institutional framework, procedures and capacity for the separation of research policy and the provider and purchaser of research
- Provide assessment of how to best deal with and implement research strategies for high priority research programs now that the crops, fisheries, livestock and forestry research priority are largely established
- Provide assessment of how CARD can best assist DST and VAAS (Vietnam Academy of Agricultural Sciences) with the development and application of a more business-like approach to management of research institutes while they are implementing Decree 115
- Provide assessment of how CARD/beyond CARD assistance can best assist the key MARD institutions with the development of long-term twinning arrangements with Australian institutions
- Provide critical assessment of what is beyond CARD, particularly given the new Whole-of-Government approach that AusAID will adopt in the new Vietnam Country Strategy,
- Assess the effectiveness and appropriateness of the program in meeting GOA White Paper on Overseas Aid Program, Australia-Vietnam Country Program Strategy (2007-2010) objectives
- Assess the program's sustainability, the need for MARD to ensure integration and coordination with other donors' activities and GOV prioritised aid management approaches
- Assess partnership-based strategic management of the current CARD and possible future assistance program
- Based on assessments above, provide recommendations on how CARD objectives, focus, structure, organisation and resourcing might be altered to enhance long term sustainability and effectiveness of CARD support to MARD, as well as on what should assistance to MARD look like under the light and in the direction of continual reform process in order to allow the

program and future assistance to effectively and efficiently meet the requirements of Vietnam's ARD Sector.

#### **5. Required background reading:**

- Australian Government White Paper on ODA (can be found at [http://www.ausaid.gov.au/publications/pubout.cfm?ID=6184\\_6346\\_7334\\_4045\\_8043&Type=PubPolicyDocuments&FromSection=Publications](http://www.ausaid.gov.au/publications/pubout.cfm?ID=6184_6346_7334_4045_8043&Type=PubPolicyDocuments&FromSection=Publications))
- Vietnam Australia Development Cooperation Strategy 2003-2007 and Draft 2007-2010
- CARD PDD
- Sub-sector priority workshop reports
- M&E manual and training modules
- MARD's draft agriculture research reform plan
- Change Frame submitted June 2006
- MARD SEDP 2006-2010
- ADB AST Project RFT
- Updated CARD Program Guidelines
- CARD 2007-08 Annual Plan, and 2006-07 Annual Report
- CARD Progress reports
- Program Level Summary of Round 2 (CARD Milestone 4 Report) and of Round 3 (Milestone 15 Report)
- TAG report (August 2006)
- Milestone 14 Report (Options for Reform)
- Minutes from previous two PCC meetings
- Selective correspondence from successful and unsuccessful proponents (to be provided by TC while the mission is in-country)

#### **6. Duration**

It is anticipated that the Mission will involve:

- 2 days travel
- 2 days desk review of the documents provided prior to the Mission
- 7 in-country working days (20-26 August 2007)
- 4 days for Team Leader and 3 days for other members of the team for report drafting and finalisation including preparation of a brief specific issues paper based on reading reports submitted to AusAID

#### **Prior to beginning fieldwork in Viet Nam, the team will:**

- Finalise all travel and logistical arrangements (need to apply for a Vietnamese visa at least four weeks in advance of travel);
- Undertake initial planning, and review of relevant documentation, as listed under 5. above.
- Liaise with AusAID Hanoi Post to finalise the work program, and meeting schedule.

#### **In Viet Nam the team will:**

- Attend a briefing session with AusAID;
- Hold meetings with key counterparts organisations in Viet Nam including Ministry for Agriculture and Rural Development, Ministry of Fisheries,

- Ministry of Science and Technology, major agricultural research institutions and universities, and other stakeholders;
- Perform field visit to some project sites

**Prior to leaving Viet Nam the team will:**

- Prepare an Aide Memoire and discuss key findings with AusAID/ACIAR in Hanoi. Use this Aide-Memoire as a basis for debriefing the GOV and AMC prior to departure from Viet Nam.

**Upon return to home country/following fieldwork in Vietnam, the team will:**

- Provide a draft report (by email) to AusAID Hanoi within ten working days of team's completion of the in-country work. The report should follow the Rural Development MTR Report Format as at Annex A of this document presenting the findings and recommendations of the MTR Mission; and,
- Provide a final report (by email) to AusAID Hanoi, with 5 hard copies, within five working days of receiving AusAID's comments.

## **7. Reporting requirement**

---

Mr John Soussan is the appointed Team Leader for this mission and will have principal responsibility for the finalisation and submission of the MTR reports. The MTR team will produce the following documents or reports:

- A brief issues paper (1 to 3 pages) outlining major issues/questions to be discussed with the CARD Program team.
- An Aide Memoire, summarising initial findings and recommendations. This will be produced prior to departure from Viet Nam. It will be presented for discussion and comment, in a debriefing meeting to appropriate GOV officials and AusAID/ACIAR Hanoi.
- A draft MTR report must be submitted to AusAID (by email) within ten working days of the team's completion of in-country work (for guideline refer to AusGuide at <http://www.ausaid.gov.au/ausguide/pdf/ausguideline4.6.pdf>)
- A final MTR report that takes into account comments conveyed to it by AusAID, to be submitted to AusAID (by email and hard copy) within five working days of receiving of AusAID comments on the draft report.
- AusAID may share all or parts of the final MTR report with the AMC and GOV.
- Reports should be as clear and concise as possible. All key issues and recommendations should be numbered.

---

## Annex 4: Milestone 14 Report Executive Summary (May 2007)

The environment for agricultural research in Viet Nam is undergoing rapid change as the country moves from a focus on improved production volumes to increased production value by means of new production processes, innovative products and marketing. As the economy has developed and major gains in the agriculture sector have been achieved, GoV priorities have moved from food security to poverty alleviation and during the coming years with membership of the World Trade Organisation (WTO) will focus on competitiveness of agriculture product both in domestic and export markets.

The reform in Agriculture Science and Technology (AST) is driven by changes in the external environment (outside MARD) and in particular by legislation that is providing guidance for development of government policy. It is also significantly influenced by the MARD Minister's desire to demonstrate improved efficiency and effectiveness and return for investment in agricultural research.

The Government of Viet Nam (GoV) initiatives for reform in agricultural research are aimed at improving the return on public investment by:

- Ensuring that funds are targeted at the priority areas identified by the GoV and by the AST sector
- Renovating the mechanisms of research management in MARD and within relevant government Ministries.

The main GoV directive for reform in research management is Decree No 115/2005/ND-CP September 5 2005: *Stipulating the mechanism on autonomy and self-management of public scientific and technological organizations*. This Decree aims to make research more responsive to the market, encourage collaboration and innovation, increase autonomy and a business-like approach to research management, and create a "level playing field" for competition between public and private sectors for AST funding. It is being implemented over the period 2006 to 2009. Science and Technology Organisations are scheduled to be fully autonomous from 1 January 2010.

In parallel with the implementation of Decree 115, the MARD Minister issued Circular No 1197/BN-KHCN of MARD regarding: *The implementation of the plan for science and technology development*. The Circular instructs the Institute of Policy and Strategy for Agriculture and Rural Development (IPSARD) and the Department of Science and Technology (DST) to develop a strategy for AST and a program for reform of AST within MARD.

The timetable for implementation of Decree 115 and Circular 1197 suggests the reform process is likely to be more "revolutionary" than "evolutionary". This carries some risks and international experience suggests that reform is likely to take much longer to institutionalise.

The report analyses the operating environment for agricultural research in MARD, and in particular legislation, funding, donor programs, and the MARD sector and research planning processes. It identifies and discusses seven policy and strategy areas for agricultural research, with respect to:

- The influence of legislation and other government procedures on the effectiveness of research management;
- The issues that arise through application of existing policy and strategy;
- Recommended options for policy and strategy development that will address key issues and will best suit the future agricultural research environment.

## **MAJOR RECOMMENDATIONS:**

### ***Research Governance***

1. Build stronger communication linkages between MoST and MARD in the on-going development and communication of science and technology policy (CARD may be able to facilitate this).
2. Restructure the composition of the SC and reduce its size to 10 –15 people in a way that it more adequately represents the end user stakeholders of research.
3. Modify the advisory role of the SC into a more active governance role that includes such functions as: priority setting, investment recommendations for the overall annual allocation of research funds to various research projects and programs, development and support of the research management mechanisms and evaluation of overall NARS performance
4. Use the existing SC members to formulate a number of sub-sector specific Technical Advisory Panels, capable of providing scientific and technical advice to the reformulated SC.
5. Obtain Ministerial appointment/approval of SC, TAPs and STO Management Boards.
6. Develop Operational Charters for a reconstituted SC, TAPs and STO Management Boards.

### ***Research Priority Framework***

7. MARD develops a single research priority framework at the National Level.
8. Once sub-sector priorities (e.g. agriculture, forestry, livestock etc) are established establish priorities between sub-sectors as an overarching component of the research priority framework.
9. MARD employs a stakeholder inclusion and consultative approach in identification of priorities.
10. Priorities are based on research outputs (usually commodities or thematic areas such as natural resource management)
11. From the priority framework a number of multidisciplinary priority research programs with clearly defined research objectives are described and for each priority program specific research strategies (research inputs/disciplines and location of research) outlined.
12. MARD bases research funding decisions on the national research priority framework and links investment in research capacity development and equipment to priority programs
13. MARD encourages DST to develop ownership and management of the priority setting process through building on the sector consultative approach for determining Agricultural Research and Development Opportunities, being facilitated by the CARD Program.
14. MARD consults with MoST and attempts to align MARD priorities with MoST priorities for the agriculture sector. This alignment should include all aspects of the research spectrum (i.e. basic to applied research).

15. The research priority framework and associated priority programs are incorporated in the MARD research planning process for 2008.
16. MARD sponsors the development of agro-ecological zone (regional) research priorities, in collaboration with provincial stakeholders, commencing in 2008 and completed by the end of 2009.
17. That once developed the National and Regional Research Priorities are intensively communicated to research institutions.

### ***Research Management***

#### ***DST (MARD)***

18. Restructure DST through establishment of a dedicated group with responsibility for research management in the AST sector so that it can focus upon its research management role.
19. Support the re-organisation of the DST through by the preparation of a Corporate Plan that clearly defines DST roles and functions and expected results for the next 3 – 5 years.
20. Prepare a draft comprehensive set of research management guidelines, including research priorities and investment portfolio and guidelines on eligibility and management of the CGS.
21. Seek capacity building donor assistance for DST in the areas of research management and business management. This could represent part of a refocusing of the ADB AST Loan.
22. Ensure that staff within the DST research management unit receive adequate training in the core research management functions and have specific job descriptions in the area of research management.
23. DST should form a working group with the DoF and OoM to address communication and roles, and particularly problems with timeliness of funds flows to research. The coordination issue should be addressed through the MARD Decree 115 working group.
24. DST to prepare comprehensive guidelines on establishing research priorities, allocation of funding to research priority portfolios, research bidding and contracting systems, assessment of research proposals, and monitoring and evaluation of research outputs and outcomes (impacts).

#### ***STOs (VAAS)***

25. Revisit the performance to date of VAAS and its future role and function to ensure that it adds value to the NARS.
26. Review the future need for capital investment in land and buildings for VAAS and look at alternative options.
27. Resolve potential conflicts between the role of DST and VAAS and the relationships between VAAS and its component institutions.
28. Reform of research management at the research provider level in MARD through development of a Corporate Plan for VAAS.
29. Identify areas where synergies between the corporate and core research services functions of VAAS and its component institutions can be applied.
30. Develop a research delivery quality assurance role for VAAS including quality assurance of research bids, commercial management of research, intellectual property issues, business management including international cooperation, representation, marketing, technology transfer, research performance assessment, and strategic elements of staff development.

### ***Research Funding Mechanisms***

31. Almost all agricultural research can be funded through a single CGS, (National, Ministerial and Grassroots) thus removing the perceived discrimination against applied research in the current proposed funding mechanisms.
32. Implementation of the CGS is phased over 3-5 years, by the end of which around 20% of existing salaries are allocated to each research institution as a grant. Almost all of the remaining 80% is managed through a CGS.
33. MARD ensures that if a CGS is adopted that existing salaries are added to the CGS pool of funds and in the future the CGS fund is adjusted for any changes in public sector salaries.
34. A small proportion of total research funding is retained in the “non-allocated” category for unforeseen or emerging research opportunities or for specific research directed by the Minister.
35. A number of “funds” are established within the CGS to guide the direction and expected outputs of research.
36. The most significant proportion of research funding (> 60%) is applied to priority research programs identified in the research priority framework.
37. The CGS is open to all research providers, including non-MARD government departments and the private sector
38. In relation to implementation of a CGS:
  - IPSARD prepares a policy paper on the special case for agricultural research as applied public good research, and proposes the implementation of a single CGS as funding mechanism for multi-disciplinary programs. . The paper would also include recommendations regarding the openness of the CGS to the private sector, leverage of funds from the private sector, and a stepwise plan for the introduction of the CGS.
  - IPSARD prepares a policy paper on the potential and mechanisms for gathering levy funding for research from exports such as coffee, pepper, sugar, and rice.
  - DST and IPSARD prepare guidelines for submission to MoF to ensure that project funding is both timely and adequate. To ensure timeliness of funds availability, there is a requirement for the GoV to provide dedicated funds to research that can be carried over financial years to ensure cash flow meets production cycle requirements.
  - DST prepares a comprehensive set of guidelines for the management of the CGS
  - DST prepares a discussion document on a range of funding mechanisms, their expected outcomes and recommended proportion of CGS funds for submission to the SC
  - MARD research plans should incorporate a 3-5 year investment profile, and project funds should be budgeted for and guaranteed for the life of the project from the time of contract signature.

### ***Human Resource Management***

39. Align technical skills development within STOs to the STO corporate direction and research priority framework, through the application of a funding mechanism as described in Section 3.5. Recruitment and technical

- training of staff should be aligned with information on funding available and expertise needed for future priority research areas
40. Identify core research skills and develop a rolling 3-5 year HRD Plan.
  41. Identify the current staff skills base, align this to future skills needs and embark on a HRM program based on recruitment, retention and retraining.
  42. Develop flexible employment contracts that recognize the changing environment and the need to adjust employment depending on success in securing research contracts with government or with the private sector.
  43. Establish business units within STOs to develop commercial business activities related to STO research functions.
  44. That training in research management and business management be identified as a top priority for DST as it develops a Corporate Plan to focus on managing the research process, and for VAAS as it improves its capacity to respond to client needs.

### ***Technology Transfer***

45. Organisational responsibilities for technology transfer within MARD be clarified and made more strategic.
46. Each research program should describe its technology transfer strategy and budgets should include implementation of this strategy. Research contracts should define technology transfer outputs, and there should be a milestone payment associated with delivery.
47. For applied research the end users of research outputs are included in the implementation of research as much as possible (i.e. a move from institute-based research to on-farm "Participatory Action Research").
48. The technology transfer strategy may include an output based contracting process whereby extension specialists are contracted to deliver technology to end-users.
49. The technology transfer or extension process should be integrated into the research process by involving the client for research in setting the research agenda and being involved in the research itself (in the case of farmers).

### ***Performance Assessment***

50. That performance measurement should be carried out systematically at sector, Ministry, research institution and program/project levels
51. The management of the performance measurement process should be with DST, but they will need increased resources, and capacity building, to be fully competent in this role.
52. STO Evaluation Units are trained in the concepts of self-evaluation and reporting and provision of continuous feedback employed to continued performance improvement.
53. Evaluation of research performance is established as high priority function with external impact assessments for high priority research programs commissioned by DST
54. Monitoring and evaluation of research is costly and the research management processes developed by DST and VAAS should be based on internal performance assessment activities.
55. The DST and VAAS Corporate and annual plans should include performance indicators that the organizations reports against. These indicators should be

used by the organization managers to assess performance and take action where performance is below the standard required.

56. For research projects STOs should develop formal quality control procedures that include regular reviews of research projects/programs with the aim of ensuring that the contracted outputs are achieved. This process should include peer review.
57. While DST has the responsibility for M&E of research, it is recommended that MoST or some other independent group outside the agriculture sector should be responsible for carrying out or commissioning the periodic impact assessment of large research programs.

#### **EXPECTED OUTCOMES:**

- Separation of research policy and funding from research delivery and avoidance of conflict of interest in relation to use of research resources.
  - Better coordinate the MoST and MARD investment in agriculture research and ensure that there is a consistent approach to research investment and minimization of duplication.
  - Provide an important linkages to the major stakeholders and end-users of research, thereby developing an environment for encouraging private sector investment in priority research programs
  - Clearly defined roles and responsibilities of the Science Council, Technical Advisory Panels and STO Management Boards
  - Ministerial control of research governance and thus the policy relating to research investment and management mechanisms and evaluation of the overall performance of the NARS, yet allowing autonomy for day-to-day management as envisioned in Decree 115.
  - Focus of technical advice on research programs and remove the perception of bias where those providing the technical advice are also involved in delivery of approved research programs.
- 
- Research investment directed at sector priority needs and research outcomes required by the GoV;
  - Research service providers are given clear signals on medium term priority outcomes in different research areas;
  - Research service providers are able to align their staff skills and resources/equipment to the priorities outlined in the framework.
  - The relevance and return on investment in research is likely to be significantly increased.
  - A move from a large number of projects to a smaller number of priority research programs that address research outcomes in a multi-disciplinary manner.
  - A clear focus for on-going improvement of efficiency and effectiveness of agricultural research.
  - Implementation of an open and transparent CGS with clear guidelines for research management.
  - Development of trust by STOs that the allocation of research resources is decided without bias.
  - Stronger STOs with a critical mass of researchers, covering a range of research from “far” to “near” market.

- DST and STOs with competent skills for more business-like management, leading to sustainability of autonomy for STOs
- HR capacity development related to areas of priority research outcomes, leading to more effective use of resources
- Improved adoption rates of near to market research outputs through participative research and involving farmers in the technology transfer process
- Ability to be able to measure impact of research through well defined strategies for technology transfer.
- Routine, affordable, high quality M&E systems
- Consolidated assessment of the performance of the NARS as a whole
- Periodic assessment of the impact of selected research programs
- Confidence from GoV that agriculture research is delivering significant a return on investment of public funds.

A Management Matrix is provided to guide implementation timetables.