Evaluation
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Support for Agricultural Value Chain Development

Independent
Evaluation ADB

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Abbreviations

ADB	–	Asian Development Bank
ANR	–	agriculture and natural resources
AVC	–	agricultural value chain
DMC	–	developing member country
EKS	–	evaluation knowledge study
GDP	–	gross domestic product
IED	–	Independent Evaluation Department
kg	–	kilogram
Lao PDR	–	Lao People's Democratic Republic
MDG	–	Millennium Development Goal
MTS	–	medium-term strategy
NGO	–	nongovernment organization
PCR	–	project completion report
PRC	–	People's Republic of China

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APPENDIXES

Acknowledgments

This report was prepared by a team formerly led by Samjhana Shrestha, and later on by Andrew Brubaker, both Evaluation Specialists from the Independent Evaluation Department (IED) of the Asian Development Bank (ADB). Team members include Alvin Morales, Caren Joy Mongcopa, Irene Garganta, and Valerie Melo. Internal IED peer reviewers for the report included Njoman Bestari, Valerie Reppelin-Hill, and Jocelyn Tubadeza. The report was finalized under the overall direction of Walter Kolkma, Director; and Vinod Thomas, Director General.

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Executive Summary

The current global context for agriculture is characterized by rapid change and increasing challenges. Several factors contribute to the changing context. Many countries have slowly reformed agricultural policies. This has contributed to increased trade and a greater role for the private sector in agriculture vis-à-vis the state. Increasing population, income, and urbanization, which are changing diets along with the use of food crops for biofuels, have contributed to increased food prices. As consumer demands related to safety, quality, convenience, and organic and processed foods increase, the gap between farm and consumer prices is widening. Supermarkets are emerging as a major stakeholder in food retailing.

Collectively, these changes contribute to a paradigm shift in the way food is produced, processed, and sold. In particular, the increased demand for safe, higher value and differentiated agricultural products has created opportunities for farmers and agribusiness entrepreneurs to transform commodities into products that are demanded by consumers. This change in food retailing has led to greater involvement of the private sector in agriculture and a focus on developing and improving agriculture value chains (AVCs) in terms of quality, productivity, efficiency, and depth.

Value chains are organized linkages between groups of producers, traders, processors, and service providers (including nongovernment organizations) that join together to improve productivity and the value added from their activities. In a well managed value chain, the value of the end-product is often greater than the sum of individual value additions. By joining together, the participants in a value chain increase competitiveness and are better able to maintain competitiveness through innovation. The limitations of each single participant in the chain are overcome by establishing synergies and governance rules aimed at producing higher value. The main advantages to commercial stakeholders from being part of an effective value chain comprise being able to reduce the cost of doing business; increase revenues; increase bargaining power; improve access to technology, information, and capital; and, by doing so, innovate production and marketing processes to gain higher value and provide higher quality to customers.

At the Asian Development Bank (ADB) developing member country (DMC) level, although most economies are driven by the service sector, agriculture makes a significant contribution. The service sector is linked to the agriculture sector in a number of ways, including those that relate to AVCs such as packaging, processing, contracting services, and transportation. Increased commercialization of agriculture contributes to service sector growth as post-farm-gate activities such as moving produce to market are taken over by specialists in the service sector. The four case study countries of this study, Bangladesh, People's Republic of China, Lao People's Democratic Republic, and Nepal, have confirmed that agriculture is still a substantial contributor to gross domestic product (GDP), but its linkages to services through value chains contribute further to the overall economies.

Development partner governments are recognizing that the changing context and the emergence of value chains can contribute to agricultural- and agricultural

services-driven economic growth. This can also contribute to reducing poverty and hunger, particularly if small farmers and agribusinesses can be part of the value chain. As such, in recent years, highlighted by the 2008 World Development Report on Agriculture for Development, there has been renewed interest among development partners in reengaging in agriculture to take advantage of evolving context.

ADB and Agricultural Value Chains

While several ADB publications recognize the importance of agriculture, particularly related to the 2008 food price crisis, Strategy 2020 provides limited guidance for agricultural development. The subsequent 2009 Operational Plan for Sustainable Food Security in Asia and the Pacific attempts to fill this gap and provides further guidance. It acknowledges the complexity of the challenges in addressing food security and suggests that a multisector approach to food security needs to be mainstreamed within ADB operations. The plan also highlights the need to develop inclusive value chains for food and agriculture to significantly enhance food security.

Before the 2009 operational plan, ADB support was generally not designed to explicitly support the development of AVCs. Instead, agriculture project and program designs were often more broadly focused on growth and agricultural production. Although these projects often included components that would contribute to AVC development, a value chain approach was not fully incorporated, and key aspects such as a business-enabling environment, support institutions, finance, and technical assistance were not linked together. Nonetheless, from the four case study field visits, there is clear evidence that an approach addressing key AVC issues such as innovation, inclusion, and the environment can be incorporated in project design. For example, an organic tea project in Nepal has been able to reach high-value markets and to involve women and indigenous groups.

Objective and Scope

Given the emerging importance of value chains and the renewed interest of ADB in agriculture and food security following the 2009 Operational Plan, the purpose of this study is to assess ADB's learning on AVCs. To do so, the study considers evaluation findings and lessons that can contribute to future ADB investments in AVCs. The idea for the study was supported by ADB's regional departments and the Regional and Sustainable Development Department.

This evaluation knowledge study (EKS) acknowledges that, while an increasing number of projects designed after the 2009 Operational Plan explicitly address AVCs, the projects available for review were designed before the 2009 Operational Plan, and few of them were explicitly designed and focused on AVCs and agribusiness development. However, ADB has supported many agriculture projects that address elements of a value chain approach. Thus, the EKS does not provide evaluation ratings of ADB projects against AVC objectives. Rather, it reviews the contribution and draws lessons from ADB support of commercial agriculture in terms of developing AVCs.

The study assesses the (i) relevance of objectives and design of agriculture projects in support of AVCs and agribusiness, and (ii) effectiveness of support for AVCs and agribusiness. It generates a series of findings and recommendations that can serve as building blocks for ADB's future engagement in commercializing agriculture and supporting AVCs.

In assessing relevance, the EKS reviews the project design frameworks of 53 loans and 50 technical assistance operations with commercial agriculture components, implemented and ongoing, approved during 2001–2009. The 53 loan operations represent 62% of the agriculture and natural resources loans approved during this period. About 39% of these were completed at the time of the study; project completion reports and other documents were used in these cases. Since many of the commercial agriculture projects that contribute to value chain development are ongoing, some fieldwork was conducted. This was undertaken in four case study countries (Bangladesh, People's Republic of China, Lao People's Democratic Republic, and Nepal).

Key Lessons

External support to AVCs is an important option for agricultural development, as higher financial returns can be realized through value-enhancing inputs. The improvements in AVC effectiveness and efficiency can enhance the benefits to all participants in the chain and contribute to food security and poverty reduction.

While the changing context and the emergence of value chains have benefited large national and multinational agribusiness firms, small farmers and agribusinesses can also benefit. To be part of AVCs and obtain a higher value or larger portion of the profits, smallholder farmers and agribusinesses will need to meet the demands of traders and entrepreneurs, which presents challenges related to perishable products, differentiated products, safety issues, environmental concerns, postharvest problems, and the emergence of a more sophisticated retail system.

Smallholder farmers can be supported to enter and benefit from AVCs through improved targeting and a staged approach that builds the skills and assets necessary to meet the market requirements and improves access to the necessary information to move into new markets. Contract farming is one option where ADB has shown some success in linking smallholder farmers to AVCs, but performance to date with contract farming has been mixed.

Traditional ADB agriculture projects focus on smallholder farmers and the production end of the AVC, with limited but increasing recognition of the need for linking with markets. To support AVC development, it may also be necessary to support other actors in the chain. In particular, there are opportunities to expand work with private sector actors throughout AVCs. This is necessary to add value to agricultural commodities (e.g., through processing) and reach higher value markets (e.g., organics).

When an AVC approach is adopted, there is a need to take a comprehensive approach to identify key constraints and the necessary linkages among the key criteria for AVC development. For example, ADB's focus on infrastructure development has been useful but not always aligned with AVC development. Transportation, markets, and other infrastructure need to be linked to production and market information to achieve better results.

Agricultural Value Chain Assessment

The EKS reviews ADB-supported projects in terms of their contribution to AVCs, by using nine criteria that this study identifies as necessary for the successful development of pro-poor AVCs:

(i) support for a policy, regulatory, and institutional framework that enables AVCs to become stronger;
(ii) creation of opportunities for increased private sector engagement including through the formation of public–private partnerships for developing synergies;
(iii) provision of access to credit for participants along the value chain;
(iv) provision of rural infrastructure that reduces postharvest losses and transport costs, and shortens transit time, while increasing overall rural mobility;
(v) support for innovations and technology for developing competitive value chains;
(vi) provision of access to value-responsive markets;
(vii) provision of access to timely information to improve bargaining power;
(viii) establishment of organizations to reduce transaction costs; and
(ix) inclusion of women, poor, and/or marginal groups into value chains.

Ensuring that the nine complementary criteria are addressed in the context of an agriculture project will improve the value chain and ensure that project outcomes are achieved.

Overall, recent ADB support to the commercial agricultural has demonstrated the potential of AVCs, and different elements are already being incorporated into project designs to increase benefits for stakeholders. In view of this study, ADB's support to AVCs and agribusiness needs to increase. Despite the lack of an explicit value chain approach in project design and implementation, ADB support has contributed in varying degrees to the key design features of AVCs and has yielded benefits to all value chain stakeholders.

The primary contribution of ADB support has been for producers and the supply and production end of value chains. Access to better inputs, improved technology, and higher yielding varieties have in most cases led to an increase in production and net benefits for smallholder farmers. More recent projects have placed greater emphasis on linking farmers to markets. While these activities contribute to increased incomes, in few instances were income increases achieved through links to higher levels in the chain that resulted in value-addition activities or the development of value chains with links to high-value markets. Thus, the potential benefits of a value chain approach were not fully achieved.

Enabling policies, regulations, and institutions. An enabling environment must be established for value chain development through policies, regulations, and supporting institutions. ADB support made progress in strengthening enabling policies, regulations, and institutions. However, support was often fragmented and not specifically directed at the key constraints for value chain development.

Private sector engagement and public–private partnerships. In general, the trend has been toward greater private sector involvement in agriculture, which contributes to value chain development. To facilitate increased private sector engagement, greater clarity is needed between the evolving and expected roles of the public and private sectors. Public–private partnerships can support the development of AVCs, but require significant input to identify opportunities and implementation arrangements. To date, there has been little involvement from ADB's Private Sector Operations Department in terms of nonsovereign lending or collaboration on project design for sovereign lending.

Access to credit. Access to credit is a key requirement for all participants in a value chain. Most credit in ADB loan projects has been targeted at farmers, using a variety of approaches to deliver credit for production-related activities. Few loan projects have attempted to provide credit to other value chain participants, such as traders and processors; those that have tried often have encountered implementation challenges.

Rural infrastructure development. Road and market infrastructure are important, as they provide critical linkages for connections and transactions between value chain participants aside from the other rural functions they perform that indirectly support value chain development. While roads are useful for value chains, they must connect agricultural areas that have a competitive advantage with strategic markets. This has not always been the case. Likewise, the locations of markets and storage facilities are critical for value chain development.

Innovation and technology. Value chains require constant innovation and technology inputs to become and remain competitive. ADB-supported projects provide useful technological inputs, particularly for increasing production. However, innovation and a culture within projects that supports the generation of new ideas has not been consistently promoted.

Market access. An understanding of market demands and requirements is necessary to take advantage of market opportunities. Many ADB loan projects have supported market access through capacity development and training inputs to build basic business skills. While important, these skills often do not go far enough in providing the specific market information required for selected value chains. From the case study countries, several examples of improving market access through contract farming have emerged—primarily by linking producers with agroprocessors.

Information services. Access to timely market information, such as prices, is essential for a functioning value chain. This helps participants in the chain, such as producers, to respond to changes in market prices and improves their negotiating power with traders and processors. Generally, the market information produced was not provided in a timely manner and was largely project driven, resulting in it ending with project closure.

Organizations and linkages. Functioning farmer organizations and linkages can reduce transaction costs within value chains. From the case study countries, most projects successfully supported the formation and development of farmer organizations for establishing or strengthening networks, and improving connections between markets and participants. This often was limited to support for producer organizations to link them to processors and help with the delivery of services. Support for other key aspects of value chain development, such as grades and standards, direct marketing, and value chain finance, was addressed less frequently.

Benefits of Agricultural Value Chains for Stakeholders

Agriculture value chain stakeholders. Producers were the main beneficiaries of ADB-supported projects to commercialize agriculture. In all the case study projects, support to other market intermediaries, such as traders, was limited. This was to be expected, as few projects explicitly adopted a full AVC approach. Focusing primarily on

production, with less emphasis on the role of traders, processors, and retailers, restricts opportunities for value-adding activities and development of a value chain.

Poor and marginal groups. As many marginal groups are directly involved in farming, they have benefited from the focus in ADB-financed projects on production. Support for improving the participation of small producers in value chains by providing access to inputs, information, and technology has been useful—additional skills and expertise required for high-value markets often need to be developed.

However, most project designs did not undertake thorough value chain and poverty assessments in advance to identify market opportunities and specific requirements for and barriers to marginal groups, such as smallholder farmers and women, entering the value chain. Not all value chains, like those relying on economies of scale, may be suitable for marginal groups. Additional analysis may be required to identify potentially pro-poor value chains, and specific and sequenced support to address the transitional and transformational problems of entry by marginal groups. In particular, ADB needs to support AVCs with direct positive impacts on the poor, women, and other marginalized groups.

Going Forward in Support of AVC Development

Countries need to adopt a comprehensive approach to policy, regulatory, and institutional reform to address key constraints for AVC development. A cross-sector policy review of agriculture, trade, infrastructure, and fiscal control needs to be undertaken to determine the support provided to value chains through the existing policy, regulatory, and institutional framework. Public–private sector forums can be formed and used to identify areas for policy reform. Policy reforms need to be linked with appropriate and implementable regulatory institutional frameworks.

Projects need to base design parameters for value chain projects on the drivers of commercial agriculture such as market demands. Value chain analysis can be undertaken in advance to identify key constraints and requirements to be addressed during project implementation. This can assist in identifying complementary project activities that contribute to an overall outcome. Models for production and postproduction project inputs can be formulated with the goal of meeting market requirements. Particular attention can be given to the market needs of the value chain in terms of the nine key criteria outlined in this study (e.g., market needs determine value chain information systems, and the form and function of value chain organizations).

Countries and projects need to identify infrastructure requirements for AVC development. The positioning of rural roads, markets, and storage facilities for commercial agriculture, in general, and for value chains, in particular, needs to be based on an analysis of strategic links between production areas and markets. The development of transport hubs can be an integral part of the development of rural roads and markets. The construction of markets needs to be based on form and function design features, and the markets need to be strategically positioned to encourage links with high-value markets.

Countries and projects need to develop models for including the poor and marginalized groups in value chains. A staged approach is needed to improve the skills base of target beneficiaries to meet the requirements of simple supply chains.

Introducing changes over time can allow for the participation of marginal groups in the development of value chains.

ADB needs to prepare a guidance note for the design and implementation of AVCs. This is to be used as a resource for designing and implementing commercial agriculture and AVC projects. In addition to addressing value chain approaches, the note can include suggestions for incorporating cross-cutting issues related to inclusiveness and the environment.

Related to the guidance note, ADB can develop business models for private sector investment and expanded support to AVCs. Public–private sector forums can be established in selected countries to identify constraints and synergies to provide cost-effective services. Clear guidelines can be developed on roles and responsibilities for government and the private sector in specific value chains. Models can be developed for public enterprises to commercialize services for value chain development. Formal linkages can be developed between the private sector, institutions, and government departments relevant to specific value chains. Alternative models can be considered that can offer inclusive growth, increase farmer power, reward innovation, and allow captured efficiencies to deliver benefits to producers.

CHAPTER 1
Introduction

A. Purpose of the Study

1. This evaluation knowledge study (EKS) was included in the 2011 work plan of the Independent Evaluation Department (IED) to address specific interests of the regional departments and the Regional and Sustainable Development Department of the Asian Development Bank (ADB). The purpose of the EKS is to review the contribution of ADB support to agricultural value chains (AVCs) through its promotion of commercial agriculture in its developing member countries (DMCs). This review takes place in light of the recognition, recently expressed in the 2009 Operational Plan for Sustainable Food Security in Asia and the Pacific,[1] for the need to add value to the food and agriculture production and postproduction systems, while paying particular attention to smallholder farmers and vulnerable groups. ADB promoted the AVC approach in the Operational Plan to improve food security in Asia after the major food price crisis in 2008. It felt that Strategy 2020, which focuses on support for agriculture through rural infrastructure provision, needed to be refined.[2] This paper explores issues surrounding the AVC approach based on evaluation findings from projects related to commercial agriculture and draws lessons for future ADB support to AVCs.

B. Background

2. The current global context for agriculture is facing rapid change and increasing challenges. Several factors contribute to the changing context: increased and fluctuating food prices resulting in food price inflation, rising demand for commodities and biofuels, changing diets and consumer demands, natural resource degradation and climate change, increased diversification of rural economies and rural–urban linkages, and greater private sector investment. Against this background, poverty and food insecurity remain high. Although most ADB countries have already reached the Millennium Development Goal (MDG) target of halving the proportion of people living in extreme poverty (less than $1.25 per day) in 2000 by 2015, the region still has more than 900 million poor, representing about two-thirds of the world total.[3] Despite the success in accelerating economic growth and poverty reduction, less progress is being made in achieving the MDG target of halving the number of people living in hunger,[4] particularly those in rural areas, by 2015. In Asia, as many as 1.2 billion people are estimated to be vulnerable to increasing food-grain prices.[5]

The current global context for agriculture is facing rapid change and increasing challenges

[1] ADB. 2009. *Operational Plan for Sustainable Food Security in Asia and the Pacific*. Manila.
[2] ADB. 2008. *Strategy 2020: The Long-Term Strategic Framework of the Asian Development Bank, 2008–2020.* Manila.
[3] ADB. 2011. *2010 Development Effectiveness Review*. Manila.
[4] The MDG target for undernourishment in the general population uses the definition of the Food and Agriculture Organization, which derives a proportion of the undernourished through the distribution of the dietary energy supply within a country's population and establishes a minimum cut-off point, below which persons are considered energy-consumption deficient.
[5] ADB. 2008. *Soaring Food Prices: Response to the Crisis*. Manila.

Agriculturally-driven economic growth can have a strong impact on reducing poverty and hunger

3. Agriculturally-driven economic growth can have a strong impact on reducing poverty and hunger.[6] Rapid productivity growth in rice and wheat and increasing market participation of smallholder farmers growing staple food crops have been driving the process of agricultural transformation in many DMCs. Rising productivity of the agriculture sector also stimulated growth in nonagricultural sectors through forward and backward linkages.

4. Recent growth[7] in demand for agricultural products has expanded market opportunities for farmers and agribusiness entrepreneurs. In addition to basic commodities, the demand for high-value crops and processed products has increased due to the rapidly expanding world market, along with increasing urbanization, advances in technology, increasing foreign investments, and liberalized trade. This change in the way food is produced, processed, and sold is an important opportunity for farm and nonfarm growth that can further contribute to greater poverty reduction through increased rural employment and incomes.

Development partners need to consider the nature of their support for developing agriculture, to meet increased demand for high-value crops and processed products

5. Given the changing context, development partners need to consider the nature of their support for developing agriculture, to assist the sector in meeting increased demand for high-value crops and processed products. This evolved perspective of the nature of support recognizes the need for improving the competitiveness of the staple food subsector, including a move toward diversification and value addition. To do so, agriculture's ability to rapidly drive development is largely dependent on commercial agriculture and agribusiness development. The pathway to commercial agriculture varies across the region and depends greatly on the ability of farmers and rural communities to increase agricultural productivity and establish a place in the domestic and globally-integrated food industry.

6. Two complementary approaches can be followed to support agroenterprise development for competitiveness and participation. One is to improve the investment climate to induce the entry of private investors, particularly small and medium-sized enterprises (SMEs). Surveys of the rural investment climate in Indonesia, Nicaragua, Sri Lanka, and Tanzania indicate that the lack of rural finance, infrastructure, and business and public services is particularly binding. The other approach targets bottlenecks in small and medium-sized agroenterprise development, particularly in value chains (footnote 6). The remainder of this paper explores AVCs in the context of ADB support to commercial agriculture.

C. Agricultural Value Chains

7. The sequence of steps and participants involved in the process from production to delivery of a product to market is called a value chain. A value chain is not identical to a supply chain. A value chain is about linkages generating value for the consumer. A supply chain is about processes of moving and transforming commodities into products from producers to consumers. While a value chain is about generating value for the consumer, a supply chain is about logistics. The productivity, efficiency, and depth of AVCs are important elements driving commercial agriculture and agribusiness. Value chains operate globally and agricultural producers in Asia and the Pacific compete with producers and exporters from elsewhere in the region, Africa, Europe,

[6] World Bank. 2008. Agriculture for Development. *World Development Report 2008*. Washington, DC.
[7] Organisation for Economic Co-operation and Development and Food and Agriculture Organization. 2010. *Agricultural Outlook 2011–2020*. Paris.

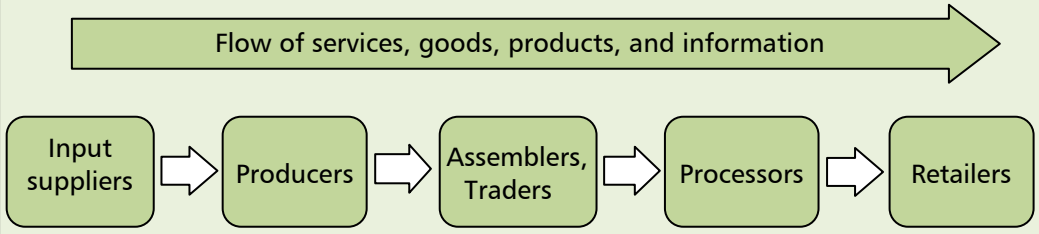
and the Americas. A detailed discussion of the main drivers of agricultural commercialization in the DMCs is in paras. 28–34.

8. The premise for adopting a value chain approach is that higher financial returns can be realized through value-enhancing inputs than can be obtained from simple supply chains. In commercial agriculture, the supply-chain focus is on producers and competitive advantage is derived from processes that improve efficiency and reduce costs. Farmers are generally isolated from consumers and products are "pushed" into the market place and move in single transactions through the supply chain. By contrast, an AVC approach within the context of the ADB definition (footnote 1) involves a shift in focus from producers to consumers. The competitive advantage in value chains is derived from inputs to supply chains that create value, as perceived by the consumer and result in a backward and equitable flow of value. Through innovation and continuous feedback between different stages in the value chain, opportunities to increase profitability are enhanced through more efficient and more desirable products.

An AVC approach within the context of the ADB definition involves a shift in focus from producers to consumers

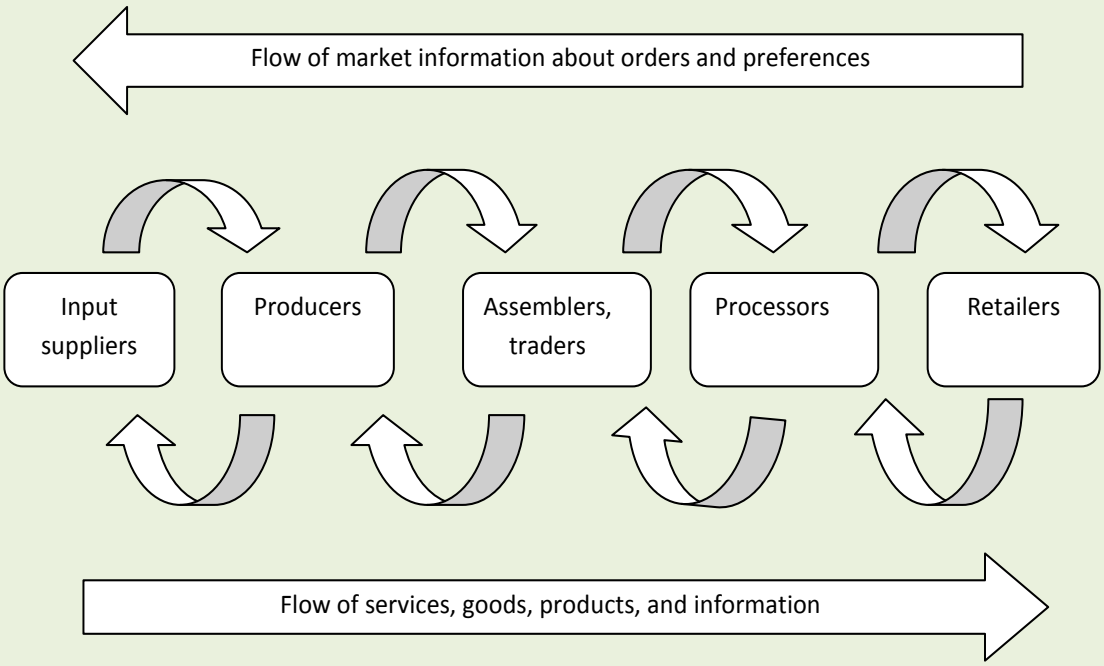
9. In sum, the main advantages accruing to commercial stakeholders from being part of an effective value chain comprise being able to reduce the cost of doing business; increase revenues and bargaining power; improve access to technology, information, and capital; and, by doing so, innovate production and marketing processes to gain higher value and provide better quality to customers. Figures 1 and 2 illustrate the differences between supply and value chains. A more comprehensive description of the value chain approach is in Appendix 1.

Figure 1: Traditional Supply Chain



Source: Research Into Use. *The Value Chain Approach to Poverty Reduction and Development of Livelihoods*. http://www.researchintouse.com/nrk/RIUinfo/valuechain/valuechain.htm

Figure 2: Value Chain with Links between Consumers and Producers



Source: Research Into Use. *The Value Chain Approach to Poverty Reduction and Development of Livelihoods.* http://www.researchintouse.com/nrk/RIUinfo/valuechain/valuechain.htm

10. A key aspect of AVCs is the development of agribusiness. Agribusiness is the off-farm link in agrifood value chains and refers to the varied linkages of farm inputs, product output, and all the other goods and services needed to produce an agricultural commodity and bring it to market. It is an off-farm link in AVCs. It provides inputs to the farm subsector and links the farm subsector to consumers. It is a generic term for the various businesses involved in food production to marketing, such as farming and contract farming, seed supply, agrichemicals, farm machinery, and retail sales. It covers the integrated and very interdependent functions of growing, collecting and transporting, warehousing, postharvest processing, industrial processing, merchandizing, grading, packaging, and marketing and sales. Hence, agribusiness development often cuts across more than one well-defined sector; the key is the network, which is based around a common raw material or a common output. For example, fruits, vegetables, or cereal grown in the agriculture sector are shipped to factory by the transport sector, processed in the manufacturing sector, and marketed by the private sector.

11. Understanding value chain governance implies understanding who controls power relationships within the chain.[8] Governance issues are of increasing importance in the agrifood system, given the greater emphasis on product differentiation, food safety, and product standards required in a competitive market environment. Such issues place a premium on strong linkages within the value chain between agents in the chain. While individual and isolated smallholder farmers may be unable to capture

[8] R. Kaplinsky and M. Morris. 2001. *A Handbook for Value Chain Research*. Ottawa: International Development Research Centre.

value added vis-à-vis traders or processors, associations of producers may be in a better position to access technology, credit, and market opportunities.

12. A strong link between agribusiness and smallholders can reduce rural poverty. Agribusiness and the performance of agriculture for development have strong synergies. Dynamic and efficient agribusiness spurs agricultural growth (footnote 7). Under the right circumstances and conditions, the poor can benefit from agribusiness in various ways. They can benefit by directly engaging in the market through the sale of surplus agricultural products. They can also benefit from additional employment and other off-farm income-generating opportunities. The ability to utilize these opportunities is largely dependent on the resources available to them, the opportunities granted them, and their skills for responding to market signals as agriculture becomes more globalized and a part of a series of interconnected links. It also depends on policies, institutions, and capacity within countries to support their involvement. Support directed at enhancing their participation and promoting competition in SMEs is needed. Most of these diverse agribusinesses are based in rural towns, and are operated by smallholder rural households. The private sector has opportunities to link these small agribusinesses with domestic and export markets for their produce.

13. The aim of promoting a pro-poor value chain is to enable poor producers to benefit from value chain improvements. Smallholder farmers can obtain a higher share of the final value of their produce through direct value addition and improved bargaining power resulting from quality enhancement with sustained demand for produce and development of stable commercial relationships. An effective pro-poor value chain ensures that higher value is produced, and a larger portion of value of the final product goes to the poor.

Pro-poor value chains enable poor producers to obtain a higher share of the final value of their produce through direct value addition

D. Evaluation Objectives

14. The objective of the study is to highlight the relevance and effectiveness of ADB support to commercial agriculture in terms of its contribution to AVC development in the DMCs. The study assesses (i) the nature, extent, and relevance of objectives and design in support for AVCs and agribusiness; (ii) the effectiveness of support for AVCs and agribusiness; and (iii) a series of findings and recommendations that can serve as building blocks for ADB's future engagement with value chains and agribusiness. Consideration will be given to the degree of integration of smallholder producers and microenterprises into the value chain networks and the degree to which ADB's approach is pro-poor.

15. To assess these issues, the study comprises the following components: (i) a review of agriculture in the DMCs, (ii) a review of ADB polices and strategies for agricultural development and the value chain; (ii) an assessment of the relevance of ADB approaches for post-2009 approved project designs promoting AVC development, and the effectiveness of ADB support for developing value chains; and (iii) an assessment of the inclusiveness of key stakeholders including the poor and marginal groups in AVCs.

CHAPTER 2

Evaluation Methodology

A. Evaluation Approach, Evaluation Criteria, and Questions

The study assesses ADB's support to AVCs mainly using two evaluation criteria: relevance and effectiveness; and considering these against nine design features important to AVCs

16. The study assesses ADB support to AVCs through its commercial agriculture projects in the DMCs mainly using two evaluation criteria: relevance and effectiveness. Relevance, in the context of this study, is determined based on whether assistance to commercial agriculture has design features that are important for the successful development of AVCs in the DMCs. Effectiveness is based on findings from case studies and how well AVC-related design features have been implemented. This includes an assessment of the degree to which different stakeholders, particularly the smallholder farmers and poor and marginal groups, benefit from such interventions. This assessment of stakeholders is necessary as determining the extent and nature of support to different stakeholders is important.

17. The study aims to answer the following evaluation questions: (i) To what extent are ADB-supported commercial agriculture projects commensurate with and focused on value chain approaches? (ii) How effective have ADB operations been in implementing the design features that support value chain development? (iii) What have been the anticipated or actual benefits to various stakeholders, such as private sector participants, and the poor, women, and other marginal groups, from value chain development? Appendix 2 provides an evaluation matrix outlining key questions, the required information and their sources, and methods of data collection. Appendix 3 includes a logic model illustrating the potential impacts of AVC development.

18. Based on the logic model developed, the evaluation identified nine design features for successful development of pro-poor AVCs. These criteria provide the framework for the study and include (i) enabling policy, regulatory, and institutional framework; (ii) access to credit for participants along the value chain; (iii) provision of rural infrastructure that reduces postharvest losses and shortens transit time; (iv) ongoing innovations and technology for developing competitive value chains; (v) access to value-responsive markets; (vi) access to timely information to improve bargaining powers; (vii) establishment of organizations to reduce transaction costs; (viii) creation of opportunities for increased private sector engagement, including through the formation of public–private partnerships for developing synergies; and (ix) inclusion of women, poor, and marginal groups in value chains.[9] These criteria are discussed in Appendix 4 and are graphically illustrated using the logic model in Appendix 5.

[9] This design criterion (inclusion of poor and marginal groups) is assessed separately in the section on the inclusion of key participants in the value chain.

B. Methodology

19. The EKS comprised desk research and field study. The desk research involved (i) analyses of global trends driving commercial agriculture and the contribution of agriculture to the DMC economies; (ii) review of ADB strategies, policies, and support for commercial agriculture in the DMCs; and (iii) review of the project design of 53 loan and 50 technical assistance (TA) projects implemented and ongoing, approved during 2001–2009.

20. Since many of the commercial agriculture projects that contribute to value chain development are ongoing, fieldwork was required, particularly to assess the contribution to effectiveness. The field study involved field surveys and focus group discussions in four case study countries—Bangladesh, People's Republic of China (PRC), Lao People's Democratic Republic (Lao PDR), and Nepal.

21. To assess the contribution of commercial agriculture projects to the value chain approach, four case studies were conducted of ongoing projects, one from each of the case study countries (Box 1). The choice of countries was based in part on the contribution of agriculture to the economy, the presence of high-value markets, and the amount of support that the ADB provided to those countries. Bangladesh and Nepal represent the South Asian countries where agriculture makes a major contribution to gross domestic product (GDP) but where high-value markets are still evolving. From the Southeast Asian region, the Lao PDR was chosen, a country with limited commercial agriculture development but with access to high-value markets in Thailand. The PRC was chosen on the basis of its rapidly emerging high-value markets in major cities.

22. The field surveys in the four countries covered value chains for 13 products and included 422 producers, 85 traders and market agents/intermediaries, 139 wholesalers and retailers, 20 processors, and 35 nongovernment organizations (NGOs). In each of the case study projects, the product selected was a high-value crop produced in commercial quantities. Focus group discussions were conducted with key informants from government departments and project staff, as well as other groups with a stake in the project including private sector organizations, NGOs and service providers, community leaders, traders, and transporters. An effort was made to include the representation of the poor, ethnic minorities, women, and other disadvantaged groups in the household surveys, focus group discussions, and interviews. For the household survey, random sampling was applied to select respondents among the farmers involved in producing the identified high-value crop. The processors and entrepreneurs (except for wholesalers and retailers) were confined to those conducting actual business with farmers. The sample was limited given time and budget constraints.

Box 1: Case Study Projects

The projects selected were either in the early stages or halfway through the process of implementation:

(i) The Commercial Agriculture Development Project in Nepal was designed with a value chain approach and included innovative features for both delivery and inclusion of marginalized groups.[a]

(ii) The Agribusiness Project in Bangladesh builds on the experience of the North Eastern Crop Diversification Project with a specific focus on the "missing middle," as a means to develop agribusiness and value chains.[b]

(iii) The Lao People's Democratic Republic Smallholder Project was in response to government priorities to improve rural livelihoods through increased production of high-value crops, private sector development in trade and agroprocessing, and improved farmer access to markets.[c]

(iv) The Henan Sustainable Agriculture and Productivity Improvement Project in the People's Republic of China promotes commercial agriculture within a sustainable framework of promoting soil and water conservation.[d]

[a] Asian Development Bank (ADB). 2006. *Report and Recommendation of the President to the Board of Directors: Proposed Grant to Nepal for the Commercial Agriculture Development Project.* Manila.
[b] ADB. 2005. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the People's Republic of Bangladesh for the Agribusiness Development Project.* Manila.
[c] ADB. 2002. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the Lao People's Democratic Republic for the Smallholder Project.* Manila.
[d] ADB. 2007. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the People's Republic of China for the Henan Sustainable Agriculture and Productivity Improvement Project.* Manila.

Source: Independent Evaluation Department.

C. Limitations

23. The EKS encountered a number of methodological challenges. Most of the projects in the desk review phase and also to an extent the field study were not primarily designed and focused on value chain development. Therefore, the discussion of project performance can only be made in reference to the context and/or objectives of those projects, not with reference to the context and/or objective of agribusiness development or value chain development.

24. To deal with these limitations, the study reviews projects based on a consistent methodology and framework. The same evaluation questions were used, which are structured around the nine design features identified through a review of literature for successful development of pro-poor AVCs and a review of project components of ADB support for commercial agriculture. Likewise the variation in the questionnaires was minimal and mostly centered on the same group of market intermediaries. Finally, the projects selected are deemed to have sufficient elements of a value chain approach so that their assessment can contribute to ADB learning related to AVC development.

25. The projects were at varying stages of implementation making the evaluation of quantitative benefits of some components difficult. Logic models and a review of implementation progress to date were used to indicate likely results.

CHAPTER 3

Agriculture in Developing Member Countries and ADB Support for Commercial Agriculture

A. The Role of Agriculture

26. Agriculture makes a significant contribution to all the DMC economies. The direct contribution of agriculture to GDP for selected countries varies from 9% for Fiji to 35% for Nepal.[10] In all DMCs, the economy is dominated by the service sector.[11] The service sector is linked to the agriculture sector in a number of ways, including those that relate to the food and beverage industry, packaging, contracting services, and transportation. Increased commercialization contributes to service sector growth as post-farm-gate activities such as moving produce to market are taken over by specialists in the service sector. In general, the contribution of agriculture to GDP is lower in countries where industrialization is higher. Value added by the farm household's own labor, land, and capital, as a share of the gross value of agricultural output, decreased over time due to the increased use of purchased intermediate inputs such as fertilizer and off-farm services. This adds to the relative decline of the agriculture sector per se in overall GDP and employment.

27. Despite its declining share in GDP, agriculture is a major source of employment in the DMCs. Up to 60% of the labor force is employed in the agriculture sector in countries such as Cambodia, the Lao PDR, Nepal, Solomon Islands, and Viet Nam. In Fiji, for example, agriculture employs over 37% of the population. In the PRC, 60% of the population is employed in agriculture although it contributes only 10% of GDP.

B. Drivers of Commercial Agriculture and the Increasing Importance of Value Chains

28. As income and urbanization have increased, the demand for food has also changed from one mainly based on grain to a more diversified diet including meat and dairy products, fruits, and vegetables. The change in demand implies not only a change in the diet composition (away from staples to nonstaples) but also a change in the preferences for food characteristics, including an increasing demand for features such

As income and urbanization have increased, the demand for food has also changed from one mainly based on grains to a more diversified diet including meat and dairy products, fruits, and vegetables

[10] Contribution of agriculture to GDP: the PRC, 11%; India, 17%; Viet Nam, 21%; and Cambodia, 29%.
[11] The contribution of the service sector to GDP for selected countries: Cambodia, 29%; Viet Nam, 41%; the PRC, 43%; Bangladesh, 47%; and India, 55%.

as safety, quality, convenience, and organic and processed foods. Different types of organization of the agrifood system are required to accommodate the changing demand for food. Rather than food distribution based mainly on the production, storage, processing, and distribution of durable grains of largely undifferentiated quality, the challenge for the system is increasingly related to perishable products, differentiated products, safety issues, environmental concerns, postharvest problems, and the emergence of a more sophisticated retail system.

29. Overall, the roles of the public vis-à-vis the private sector have changed; since the 1980s, the role of the state in the agriculture sector has been reduced. Markets for most commodities have been liberalized and the role of the state in marketing and setting prices reduced, with the exception of some key commodities such as rice in Asia. In agribusiness development, the public sector reducing its role in the provision of services that can be more effectively and efficiently offered by the private sector. Appendix 5 highlights the changing roles of the private and public sectors within the value chain, as the private sector has taken on a greater role in many activities previously performed by the public sector. Some DMCs at the early stage of private sector development have limited private sector capacity and often require public sector support to manage risks inherent in agribusiness.

30. The trade environment has also evolved—partly through slow, incremental changes in the global trade regime, in public and private quality standards, and in bilateral and regional trade agreements; and partly through the increasing importance of fast-growing economies that are not members of the Organisation for Economic Co-operation and Development as importers and exporters of agricultural products. Particularly in Asia and the Pacific, the growth of agricultural trade has been substantial. By 2007/08, Asian agricultural imports made up a quarter of global trade, mostly for cereals, oil crops, meat, and horticultural products.[12] The PRC and India have dominated these trade flows, both as exporters and importers.[13]

31. The gap between farm prices and consumer prices is widening because more affluent and discerning consumers require an increasing number of services and attributes to agricultural products. This offers potential opportunities for farmers to capture higher prices if they are able to engage in value-adding activities. When value-adding operations are limited, farmers capture 80%–90% of the final price of rice. However, when various value-adding operations are introduced in the supply chain, the gap between farmer and consumer prices increases substantially. The more dynamic the entrepreneurs in the value chain, the more forms of adding value will be found after production and, as a consequence, the gap between farm and consumer prices will increase.

32. During the 1990s, supermarkets emerged as a major form of retailing in a number of developing countries, starting in Latin America, where in 2000 supermarkets represented about 50%–60% of food retail sales. This change moved rapidly in developing Asia (Southeast Asia and the PRC), and is currently taking place in Africa and slowly moving toward South Asia. In the early 1990s, developing countries around the world reformed their economies, opening them up to a wide range of foreign investments, including investments in retailing. Large supermarket chains from Europe and the United States, seeing the rising incomes and urbanizing populations in developing countries, rushed into these markets. The Asian crisis offered an

[12] Food and Agriculture Organization. 2008. *The State of Food and Agriculture 2008.* Rome.
[13] International Fund for Agriculture Development. 2010. *Rural Poverty Report. New Realities, New Challenges: New Opportunities for Tomorrow's Generation.* Rome.

opportunity to grasp cheap asset prices and accelerated the strategy of leading American and European agrifood multinational companies to establish their presence in Asia.[14]

The changes in food retailing along with high-value trade bring major challenges related to sustainability

33. These changes in the value chain related to production and food retailing along with high-value trade bring major challenges related to the sustainability of small retail shops and vendors, small enterprises, and smallholder farmers. At the same time, developments in the retail sector offer potentially great opportunities for including the poor in value chains. The major challenge for smallholder farmers is how to become part of the value chains (e.g., supermarket chains). Supermarkets decide the products that a farmer must grow according to standards that are often too high for smallholder farmers to comply with. Meeting the demands of buyers and purchasing agents requires technical and management skills that smallholder farmers often do not have.

C. Selected Development Partner Approaches and Lessons with Agricultural Value Chains

34. In recent years, development partners have increased their focus on innovation for commercial agricultural and AVCs. Recognizing the role of commercialization in promoting agricultural development, development partners have applied several approaches, including the use of innovative financing mechanisms such as challenge funds[15] to allocate grants competitively to corporate entities, support for "lead firms" as compared with programs that target inefficient or missing links in the chain, and new partnerships. Several of the approaches of ADB's development partners in support of value chain development and commercialization are discussed in Appendix 6.

35. In terms of lessons related to AVC development, the United Nations Industrial Development Organization and the International Fund for Agricultural Development commissioned a study in 2010,[16] with the purpose of synthesizing approaches and experiences in value chain development projects in Asia. The study, based on case study experience from bilateral and multilateral (United Nations) agencies, highlights the importance of value chain selection; incentives and linkages; and the inclusion of gender, poverty, and environmental objectives. In addition, it provides a number of lessons related to project design and implementation, participatory approaches and existing power structures, and managing risk. Appendix 6 also includes a summary of the main recommendations from this study.

36. The EKS also compared development partner approaches to AVC development against the identified design features required for AVC development. A summary table of their value chain-related activities against these criteria is presented in Appendix 7.

[14] F. Goletti. 2005. *Making Markets Work for the Poor: Agricultural Commercialization, Value Chains and Poverty Reduction*. Maryland: Agrifood Consulting International.

[15] Challenge funds are a way to allocate grants competitively to corporate entities to implement development-oriented projects that meet the challenge fund eligibility criteria. For example, funds are used to encourage commercially-focused stakeholders to make extra efforts to reach the poor or devise market-based solutions that would significantly benefit the poor.

[16] United Nations Industrial Development Organization. 2010. *Agro-Food Value Chain Interventions in Asia: A review and analysis of case studies*. Vienna.

D. ADB Policies and Strategies for Agricultural Development

37. To meet its mandate of poverty reduction, ADB's first long-term strategic framework, 2001–2015 [17] recognized pro-poor sustainable economic growth, social development, and good governance as core areas of operations. It used broad terms to allow flexibility for adjustment in response to changing conditions and was implemented through two medium-term strategies (MTS I and II). ANR sector policies were supported under MTS I (2001–2005) to promote growth and environmental sustainability. Under MTS II (2006–2008), an operations model was developed to focus and build a critical mass of expertise in a few selected areas (e.g., road transport, energy, urban infrastructure, rural infrastructure, education, and finance) in which ADB could become a leading provider of development assistance to the DMCs. Two ANR subsectors [18] (i.e., agricultural production and markets, and agriculture and rural sector development), which usually provided major support to commercial agriculture, were classified under the second priority group of subsectors considered relevant for one or more of the five strategic priorities of MTS II. [19]

38. In the absence of a formal strategy and plan for commercial agriculture, [20] ADB country partnership strategies for the DMCs often articulated approaches to commercial agriculture that were mostly in conformity with the country's national development plan (Box 2). In general, ADB support for commercial agriculture was wide in scope and included efforts to support postproduction stages with the aim of increasing productivity growth and facilitating market access to improve rural livelihoods. Dominant themes in the support of commercial agriculture have been in the areas of policy and institutional reforms, capacity building of executing and implementing agencies, research and extension services, development of rural infrastructure for increasing market access, and provision of irrigation facilities. Other areas of support included enabling rural credit, farmer cooperatives and networks for increasing marketing information, and SME development.

39. ADB's Strategy 2020 focuses on broad sectors such as transport, energy, water, education, and finance (footnote 2). The strategy identifies agriculture, along with health and disaster and emergency assistance, as an area that can continue to be supported on a limited scale. Strategy 2020 supports rural infrastructure and particularly irrigation, drainage, and flood protection, as well as water resource management.

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[17] ADB. 2001. *Moving the Poverty Reduction Agenda Forward in Asia and the Pacific: The Long-Term Strategic Framework of the Asian Development Bank (2001–2015)*. Manila.

[18] The irrigation subsector was categorized in group I, and the fishery and livestock subsectors were categorized in the least priority group III. The ANR sector fell mostly under group II, although with some exceptions.

[19] The five strategic priorities under MTS II are (i) catalyzing investment, (ii) strengthening inclusiveness, (iii) promoting regional cooperation and integration, (iv) managing the environment, and (v) improving governance and preventing corruption.

[20] ADB does not have a well-defined strategy or approach to support agricultural commercialization. Existing policies for ANR subsectors include policies for Forestry (1995), Agriculture and Natural Resources Research (1995), Fisheries (1997), Water (2001), and Environment (2002).

Box 2: Strategic Agricultural Priorities of the Four Case Study Countries

The country partnership strategies (CPSs) covering 2001–2009 for the selected four country case studies (i.e., Bangladesh, People's Republic of China [PRC]), Lao People's Democratic Republic [Lao PDR], and Nepal) emphasized the importance of diversifying production systems, strengthening market orientations, and developing commercial agriculture to increase employment and reduce poverty in rural areas. Support for agribusiness development and value addition to agricultural produce is specifically mentioned in these strategies, and more prominently in recent strategies. The need to include poor and marginal groups in this process is also better articulated in the more recent CPSs. The importance of public and private partnership for sustainable agribusiness development is well recognized. Specifically, the Bangladesh CPS, 2006–2010 aimed to foster a vibrant and diversified rural economy through support for (i) intensification, diversification, and value addition to boost agricultural productivity, improve food security, and foster rural nonfarm enterprise development; (ii) strengthened farm-to-market linkages; and (iii) sustained growth of agriculture and agribusiness to generate productive on-farm and off-farm employment to raise rural income.[a] The Nepal CPS, 2005–2009 supported institutional reforms for the development of commercial agriculture.[b] It supported (i) restructuring government agencies, transforming them from suppliers of inputs to facilitators of agribusiness activity; (ii) fostering public–private partnerships to deliver agricultural support services; and (iii) linking rural areas with growing urban and export markets. The Lao PDR CPS, 2006–2008 aimed to stimulate rural productivity through diversification and off-farm activity by (i) improving farm-to-market connectivity, (ii) enhancing the enabling environment for agribusiness, and (iii) helping sector institutions realign their programs.[c] In the PRC CPS, 2008–2010, the agriculture and natural resources sector continues to be a priority sector. Key strategies in sector development support are market development and reforms to increase income by linking small-scale primary producers to markets, strengthening extension services, improving allocation, facilitating credit facilities, and fostering links between farm and nonfarm subsectors.

[a] Asian Development Bank (ADB). 2005. *Country Partnership Strategy: Bangladesh, 2006–2010.* Manila.
[b] ADB. 2004. Country Partnership Strategy: *Nepal, 2005–2009.* Manila.
[c] ADB. 2005. *Country Partnership Strategy: Lao People's Democratic Republic, 2006–2008.* Manila.
[d] ADB. 2007. *Country Partnership Strategy: People's Republic of China, 2008–2012.* Manila.
Source: Asian Development Bank.

40. Further guidance related to agriculture is provided in ADB's 2009 Operational Plan for Sustainable Food Security (footnote 1). The plan seeks to enhance synergy and value addition in backward and forward linkages in AVC in production and postproduction systems, with particular attention to smallholder farmers and other vulnerable groups. With such interventions, the plan recommends pathways to transform Asia's rural and agriculture sectors to efficiently integrate agriculture production, processing, and marketing with the country and regionally. The value chain approach is expected to allow small producers adequate and fair access to inputs, markets, technologies, and information; and provide diverse income and employment opportunities. The plan thus goes much further than Strategy 2020 and calls for adoption of a multisector approach to developing inclusive food and agriculture value chain networks, engaging rural and urban economies, and linking the value chains to domestic and international consumers.

The 2009 Operational Plan for Sustainable Food Security seeks to enhance synergy and value addition in backward and forward linkages in AVC in production and postproduction systems, with particular attention to smallholder farmers and other vulnerable groups

41. The 2009 Operational Plan is a useful document as it elaborates how support to agriculture relates to Strategy 2020. In doing so, it implies a greater strategic priority for agriculture and food security, and a more targeted and engaged approach beyond the broad-based growth and infrastructure-oriented strategy articulated in Strategy 2020. The plan addresses food security by targeting productivity, resilience, and connectivity even though production within Strategy 2020 is primarily limited to irrigation. The plan, while recognizing the need for a multisector approach and the

importance of value chain development, provides limited direction for implementation and links to the broader ANR sector. For example, with value chains it gives little guidance on linking production with the role of the private sector, food security, and the relationship to other sectors (e.g., social sectors). In terms of inclusiveness of poor and marginal groups, the plan gives special emphasis to groups that remain excluded from greater participation in economic activities.

E. ADB Support for Commercial Agriculture

42. ADB provides support to the ANR sector in its DMCs mainly in the form of project and program loans, TA, and grants. To date, ADB support has been primarily in the form of sovereign lending. There has been little engagement from the Private Sector Operations Department.

The sample of projects reviewed covers ongoing and completed projects from 2001–2009

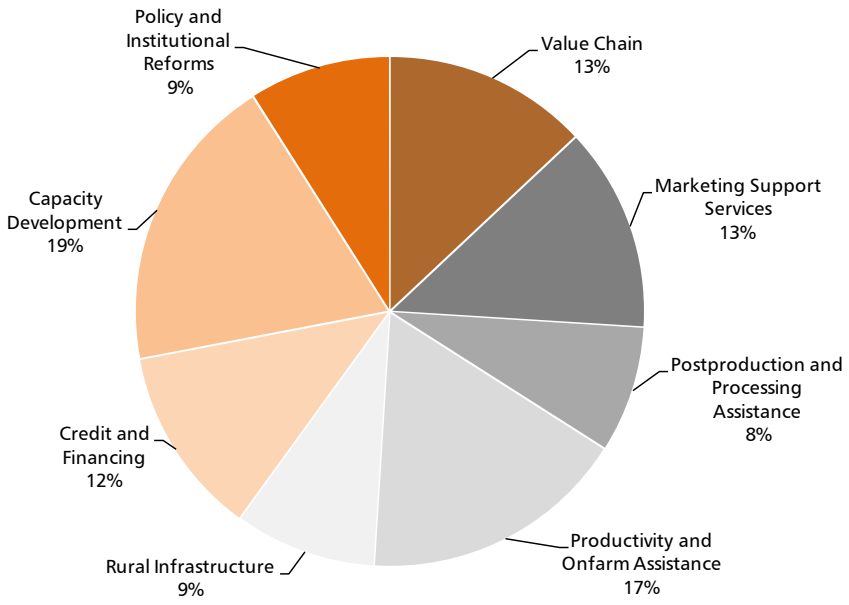
43. The sample of projects reviewed in the EKS covers ongoing and completed projects from 2001–2009 (Appendix 8). Looking at the more recent projects including those that are ongoing provides an opportunity to consider lessons from current project designs and lessons from implementation. During this period, ADB support for the ANR sector amounted to $5.4 billion (loans $4.4 billion, TA projects $193.2 million, and Asian Development Fund and other grants $742.8 million).[21]

44. ADB supported 86 loan operations, 258 TA projects, and 68 grant operations during 2001–2009. Fifty-three loan operations (62%) had some components supporting commercial agriculture. In addition, 50 TA projects (19%) and 50 grant operations (73%) included support for commercial components. Thirty-two of the loan operations and 41 of the grant operations are ongoing, while 33 of the TA projects are complete. Of the 53 loan operations with components supporting commercial agriculture, 31 were approved prior to MTS II. The other 22 were approved post-MTS II (2006–present), seven of which were approved after ADB adopted Strategy 2020 in 2008. This is indicative that support to commercial agriculture had been declining until 2009.

45. The 53 projects with components on commercial agriculture were spread across all ANR subsectors. Four subsectors had greater emphasis on commercial agriculture: (i) agricultural production and marketing, (ii) agriculture and rural development, (iii) fishery, and (iv) livestock. Thirty-eight projects with major support to commercial agriculture development are categorized under these four subsectors. Figure 3 shows the distribution of the 53 projects supporting agricultural commercialization (Appendixes 9, 10, and 11). The top three DMCs in terms of loan amounts are Pakistan (28%), Viet Nam (18%), and the PRC (16%). Collectively, these DMCs account for 62% of the total loan amount for projects with a commercial component.

[21] Fifty-one percent of the loans are financed from ordinary capital resources and the remainder from the Asian Development Fund. The TA projects include project preparatory and advisory assistance, 51% were advisory assistance. The Asian Development Fund, Japan Fund for Poverty Reduction, Japan Fund for Information and Communication Technology, and funds from other development partners provided the grants. The Asian Development Fund was the main source of funding for grant projects, accounting for over 50% of the grants. In terms of number of projects, the Japan Fund for Poverty Reduction had the highest number of grant projects, accounting for nearly half of the projects (48.5%).

Figure 3: Commercial Agriculture Programs and Projects (2001–2009)



Source: Independent Evaluation Department

46. Some of the more recent projects indicate that ADB has recognized the changing context and the evolving drivers of commercial agriculture, and has financed and designed projects that utilize a value chain approach that focuses on integrated functions and value-added potential in order to improve competitiveness and help poor households, women, and marginalized groups (Box 3). Based on the evaluation's review of selected 2010 ANR project designs, direct links in value chain development are evident, especially for projects approved after the passage of the Operational Plan for Food Security. ANR project designs highlight their consistency with this plan and ADB's thrust on food security including the development of value chains. Some examples include the Second Crop Diversification Project [22] and Second Chittagong Hill Tracts Rural Development Project in Bangladesh, [23] and the Agribusiness Infrastructure Development Investment Program in India. [24] Furthermore, this study recognized that in 2010, some regional and country TA projects were approved to support and respond to food security concerns; and one emphasis was on value chains. [25]

[22] ADB. 2010. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the People's Republic of Bangladesh for the Second Crop Diversification Project.* Manila.

[23] ADB. 2011. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the People's Republic of Bangladesh for the Second Chittagong Hill Tracts Rural Development Project.* Manila.

[24] ADB. 2010. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to India for the Agribusiness Infrastructure Development Investment Program. Manila.*

[25] In 2010, two regional TA projects totalling $6 million were approved in response to the food security crisis. Smaller TA projects were financed to support dialogue, forums, and strategic planning. Research and development TA on food and nutrition also deepens the understanding of AVCs to include the food–water–nutrition nexus, these include SSTA *7316-REG: Regional Consultative Process on Prioritization of Agriculture Research and Development Agenda for Asia and Pacific*, where agriculture research prioritization came up in a participatory manner with the priority areas for agriculture research and development, of which AVCs became critical focal areas; SSTA *7522-REG: Investment Forum for Food Security in Asia and the Pacific*, which funded the first ever investment forum for food security, provided a wealth of knowledge products with lessons and ways forward through the release of the book, *Food for All.*

Box 3: Milking for More Money

The livestock industry in Nepal has a number of features that contribute to the development of value chains: (i) there is a well-defined domestic market for quality milk and meat products for the increasing middle class; (ii) local products have a competitive cost advantage against imports; (iii) while livestock is often sold live, the market for value-added processed products, which require additional skills, is increasing; and (iv) the high financial, technical, and labor investment required lends itself to the development of organizations. The Community Livestock Project has successfully leveraged these features to improve the quality of products to a stage where they can compete with imports.[a] Stakeholders in the project have a comparative advantage over other producers where infrastructure, such as milk chillers and slaughter slabs, has been provided to reduce losses and improve quality. It could also be argued that these inputs provide a competitive advantage that allows producers to differentiate their products and to enter high-end markets where food hygiene is a prerequisite.

[a] ADB. 2003. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to Nepal for the Community Livestock Project.* Manila.
Source: Independent Evaluation Department.

Most of the projects were designed to broadly contribute to economic growth and improve agricultural production and productivity (yields)

47. However, most of the projects, while giving some emphasis to commercial agriculture, were designed to broadly contribute to economic growth and improve agricultural production and productivity (yields) through TA, provision of credit, improved infrastructure, enhancement of institutional capacity, and private sector development initiatives. In implementation, these projects contributed to developing selective elements of the value chain but were not comprehensive in their approach. As such, the projects did not tie together the critical aspects of agribusiness development and value chains such as a business-enabling environment, support institutions, finance, and technical support. Nor did they undertake a thorough analysis of the entire value chain to determine the most significant bottlenecks to be addressed to improve the development of value chains. For example, some projects (Small-Scale Water Resource Development Sector Project and Forestry Sector Project in Bangladesh, and Second Agricultural Bank of China in the PRC) [26] address the institutional and/or enabling environment and capacity building without a clear direction for agribusiness and/or value chain development. Other projects (Rural Microfinance Project in Nepal, Microfinance Development Program in the Philippines, and Small Farmer Credit Project in Thailand) deal with finance and/or credit and capacity building, but fall short in that the more readily available credit could have been used to encourage more value-added activities and not just increase production.

48. Additionally, the projects that pertain to multisector activities focus more on institutional development, capacity building, policy, and finance, which are all necessary for economic growth, but less on building the functional expertise of the specific stakeholders in the value chain to drive value added as the stated objective of

Recently approved regional TA projects are *TA 7967-REG: Innovations for More Food with Less Water,* which looks at the food–water nexus from the lens of technology and innovations in the water and food supply chains; and *TA 7996-REG: Innovative Financing for Agriculture and Food Value Chains*, which explores the pilot testing of business models for innovative financing of food security.

Related knowledge includes TA projects on furthering subregional AVC development: *TA 7648-REG: Strategic Research for Sustainable Food and Nutrition Security in Asia*; *TA 7495-REG: Support for the ASEAN Plus Three Integrated Food Security Framework*; and *TA 7521-REG: Strengthening Local Chambers of Commerce and Industry along the East-West Economic Corridor to Promote Trade, Investment and Value Chains*, which supports the development of agriculture and AVCs in the Greater Mekong Subregion.

[26] Details of these projects and other ADB loans and grants mentioned in the succeeding sections of this study are in Appendixes 9, 10, and 11. They are not footnoted when they are referred to in the text.

the project. Some of the projects took the positive step of linking business, finance, support services, capacity building, and infrastructure improvements with TA for specific subsectors, but did not go far enough in their objectives to make value-added the ultimate objective. While this approach contributes to results, a more integrated approach that strategically promotes value chain development can have a greater impact.

CHAPTER 4

Relevance and Effectiveness of ADB Support for Commercial Agriculture

49. To review the relevance and effectiveness of ADB's commercial agriculture projects in terms of their contribution to developing AVCs, the EKS assessed these projects against key design features identified for the development of pro-poor AVCs (Chapter 1). Relevance is largely assessed in terms of the extent to which project designs focused on a value chain approach. Project-related documents, such as reports and recommendation of the President to the Board of Directors, back-to-office reports, and PCRs, were reviewed. Effectiveness considers how well ADB projects linked producers to markets and higher-value activities. The case studies were used to assess the effectiveness implementation. In doing so, emphasis was given to assessing the impact on different stakeholders in the value chain. Within this assessment, the study reviews benefits accruing to value chain participants in each of the case study projects based on value chain analyses.

A. Policy, Regulatory, and Institutional Framework

50. Well-functioning and coordinated country policies, regulations, and institutional frameworks are essential for creating the enabling environment on which AVC development and agribusiness SMEs depend. Overall, ADB and the DMCs have made progress in promoting national policies that support the agriculture sector by reducing barriers to inputs, increasing access to finance, improving governance, and providing incentives such as through the creation of export processing zones. However, the desk review of completed projects shows that progress in developing AVCs has been limited by fragmented support that leads to gaps in critical policy areas and in the regulatory and institutional framework.

1. Relevance of Design

To develop agribusiness, ADB has provided a range of support to improve the macro-enabling environment

51. To develop agribusiness, ADB has provided a range of support to improve the macro-enabling environment. However, support is often fragmented for sectors as the key regulatory and institutional frameworks are weak and projects tend to target specific challenges that may not be the most essential for value chain development. About 47% of loan projects (25 of 53) provided support to improve policy frameworks to promote commercial agriculture and agribusiness development. The ADB support, as outlined in project designs, covered the formulation of decrees, regulations, and guidelines; and conduct of policy studies. This support was to specific policy areas that addressed constraints to commercial agriculture within the context of the project rather than to the sector in general. Policy reforms relevant to the value chain approach

focused on (i) increasing private sector participation; (ii) ensuring quality and safety of agricultural products; (iii) divesting state-owned enterprises, and (iv) improving institutional and financial frameworks.

52. In most projects, support for improving the policy environment for private sector participation was selective and involved identifying specific issues and constraints, as well as opportunities for private sector participation in commercial agriculture. At least five advisory TA projects were designed to improve the policy, legal, and regulatory environment for agribusiness and monitor the progress of policy reforms. The Pakistan Agribusiness Project states a value chain approach that is predicated on meeting domestic and international consumer requirements through strengthening private sector delivery mechanisms to agribusinesses. Support for policy reforms for this project included improving the financial environment to make it more attractive for entrepreneurs to invest in the agriculture sector. The policy framework in Nepal defines areas for private sector participation that would promote the value chain approach and includes collection, grading, storage, processing, and packaging. No specific strategies were developed to achieve this, although projects such as the Community Livestock Project and the Commercial Agriculture Alliance Project in Nepal have incorporated activities that have resulted in private sector involvement either in supply chains or intended value chains.

53. ADB support in the trade policy area has been largely limited and focused on removing supply-side constraints. For example, policy support was provided to remove supply-side constraints in Cambodia's Agriculture Sector Development Program and the Tonle Sap Poverty Reduction Program. Trade agreements offer opportunities for value chain development, provided domestic producers are able to compete. However, project agencies are often not aware of the opportunities and requirements to take advantage of larger opportunities such as regional trade agreements. More involved approaches were also found as in the case of the Pakistan Agribusiness Project, which involved adjusting the regulatory framework to improve coordination between different government agencies in developing a "single-window" [27] export system.

54. Requirements for institutional support to both the government and the private sector vary among the DMCs and project support is not always focused on the overall enabling environment for value chains. Institutional support for government institutions was provided to existing government departments to deliver agriculture services more effectively (PRCs' Fujian Soil Conservation and Rural Development II) and to reorient institutions to facilitate agribusiness (Cambodia's Tonle Sap Poverty Reduction and Smallholder Development Project). However, this institutional support was not specifically directed toward the enabling environment for value chains. Institutional support has also been provided to government and community organizations to facilitate the transition of enterprises from government to the private sector (Forests for Livelihood Improvement in Viet Nam) and improve private sector participation. In some instances, institutional support was provided across a number of government departments—both national and local—with the prime objective of improving service delivery in areas relevant to value chain development, such as infrastructure, roads, and credit (Southern Province Rural Economic Advancement in Sri Lanka). Institutional support to implement specific policies has also involved the development of human resources in specific technical areas that affect value chains such as food safety and certification of quality assurance.

[27] A single-window export system aims to collapse procedures into one event.

2. Effectiveness

55. Policy and institutional support often addressed specific constraints within the context of the project rather than the development of the entire value chain. This approach has generally been effective in improving the efficiency of commercial agriculture. However, the projects supported supply chains linked to markets that do not pay premiums for product differentiation and are unlikely to develop into high-quality value chains because ADB support to policy reforms did not adopt an integrated approach focused specifically on addressing constraints to the development of such high-value chains.

56. Institutional support in the Nepal Commercial Agriculture Alliance Project did not involve central government institutions but did assist in building the capacity of district and village development committees through the infrastructure component. The Commercial Agriculture Alliance Project assisted the Department of Agriculture and the Chamber of Commerce through the Agriculture Marketing Information System developed by the project. The Bangladesh Agribusiness Development Project did not provide institutional support to government. It did however provide some support to microfinance institutions on disbursement of credit. Institutional support for the Lao PDR Smallholder Project was limited to capacity building for the Ministry of Commerce to assist with providing a market information system. No institutional support was provided under the Henan Project in the PRC.

B. Private Sector Participation and Public–Private Partnerships

57. Over 60% of reviewed projects included activities to increase private sector involvement in developing the agriculture sector. Most project design documents express the need for the private sector to lead agriculture development and a variety of different mechanisms, such as contract farming have been employed to achieve this.

58. Public–private partnerships (PPPs) are collaborative efforts between public and private sector entities, where critical skills, knowledge, and risks are shared. PPPs can play an important role in providing investments and extension, and contributing to agricultural research. This can benefit smallholder farmers who rely on agriculture for their livelihoods. Overall, the desk review found that a general lack of clarity around the role of government in developing the agriculture sector has negatively impacted private sector involvement and investment, as well as the use of PPPs, which often lack strategic focus in terms of direction, goals, and implementation modalities. For instance in the Lao PDR, the absence of statutes defining the role of the government and the partnership between the private sector and farmers prevents private firms from making long-term investment decisions.

1. Relevance of Design

59. A range of initiatives was envisaged in the projects reviewed to increase private sector involvement. In some cases, the public sector took a proactive approach to introduce institutional and policy reforms to reduce perceived barriers to private sector participation imposed through rigid government department procedures. The development of a single-window export facility to improve efficiencies in the case of the Pakistan Agribusiness Project allowed exporters to develop a comparative advantage through improved farm-gate to market logistics.

60. The Cambodia Agriculture Sector Development Project sought to reduce the role of government in commercial agriculture activities and provide opportunities for further private sector participation. This involved transferring the management of some assets to the private sector on a lease basis with the public sector providing capacity building through training in maintenance and financial management. This provides a model for exit strategies that reduce government involvement in assets that provide inputs into supply and value chains. Strategies for increasing private sector participation in marketing have involved the formation of joint ventures between local and international trading companies. Financial support has been provided to the private sector to establish processing facilities as a means to provide more secure markets for producers.

61. In some projects, the private sector was used to extend the reach and efficiency of extension activities. In these cases, the government provided training to build the capacity of contracted NGOs and private companies. Other services provided through joint government and private sector cooperation include the multiplication and delivery of improved crop varieties, and have led to opportunities for the private sector to participate in agribusiness.

62. Commercial agriculture project designs attempted to establish PPPs with widely differing roles. Partnerships have been established to provide and manage infrastructure such as storage facilities and markets (Northeast Coastal Community Development in Sri Lanka) and to identify infrastructure requirements. In addition, PPPs have been used to improve the regulatory environment and to provide technical expertise. The Bangladesh government provided funding to establish Hortex, a parastatal organization with a joint government and private sector board, to facilitate market development for a wide range of value-added products. Hortex also provides value chain services to the private sector through the development of packaging, transport logistics, and quality control.

2. Effectiveness

63. Private sector participation in projects has been effective but often limited to production and basic processing. The case studies point to a need for greater clarity around the role of government in developing the agriculture sector. The uncertainty has negatively impacted private sector involvement and investment. Many projects recognize the importance of the private sector for agricultural development and have some components to work with it. Most support has focused at the production end of the value chain through contract farming and some support to processers, with far less emphasis on retailer and consumer demands. Leveraging of additional private sector investments appears to be significant. In the Lao PDR, a report commissioned by the Sub-Working Group on Farmers and Agribusiness[28] concluded that local leaders and officials are too involved, directly and indirectly, in marketing chains resulting in market distortions.

Private sector participation in projects has been effective but often limited to production and basic processing

64. While contract farming can be challenging to initiate due to lack of experience and supporting regulatory frameworks, the case study projects show that contract farming provides an opportunity to link private sector operators with smallholder farmers. Contract farming in the Lao PDR Smallholder Project had a number of different modalities. The project encouraged rice millers to absorb the price risk by entering into a contract with farmers to provide them a minimum guaranteed price. The benefit to

[28] R. Gilbert. 2010. *Farmer Bargaining Power in the Lao PDR*. Report for the Joint Sub-Working Group on Farmers and Agribusiness. Vientiane and Berlin.

farmers was reflected in the relatively high net profit of $0.10 per kilogram (kg), compared with the producer price of $0.38/kg. Millers were able to absorb the risk because they accessed credit through the Agriculture Promotion Bank at a 7% interest rate and lent it either as cash or in the form of inputs at 9%–11%.

65. Contract farming between Lao PDR traders in Champasak Province and Thai traders in Oubonladsathany Province was developed in 2005 and further promoted by the project. The field survey found that in 2010 six Lao PDR trading companies had entered into contracts with 15 Thai companies for a range of high-value crops. Since 2006, trading through these contractual agreements increased from $2.4 million to $8.9 million. Although farmers are not direct parties to the contract they benefit from improved access to markets and reduced risk of price fluctuations. The project leveraged these contracts to provide support for access to credit, farm business management, and improved husbandry techniques. Sixty-five percent of survey respondents felt that the contracts improved their access to markets, and 43% revealed they received higher prices than before. More examples of contract farming are discussed under market access in para. 104.

66. The use of PPPs is often constrained by uncertainty over investment models, which identify how the government and the private sector will capitalize and manage transitional privatization enterprises. The Commercial Agriculture Alliance Company, established by the Nepal Commercial Agriculture Alliance Project, is an innovative approach to forming a PPP with an ability to be responsive to commercial needs. The Evaluation Mission observed, however, that the Commercial Agriculture Alliance Company functioned like a government department rather than as a service-providing organization that had a service to sell.

67. The Nepal Community Livestock Development Project, which was led by the private sector with the public sector providing assistance in technical expertise and social mobilization, is an example of a successful application of public–private cooperation in the delivery of services. Although no PPP was formally instituted, both sectors worked together and achieved the project's objectives.

C. Credit and Financial Support

68. Almost two-thirds of the projects reviewed (62%) have a component to improve smallholder access to credit. Credit lines are usually established through participating microfinance institutions. In general, the access is linked to training in social mobilization, group organization, and business management rather than directly to value-adding activities. Mostly this support has been aimed at production-related activities. More recent project designs provided support to processing to increase market opportunities. Little or no financial support has been provided for market intermediaries, entrepreneurs, and retailers, particularly for value-adding activities needed for high-value markets. [29] Other forms of financing involve matching grants and revolving funds managed by members to support rural income-generating activities (Northern Region Sustainable Livelihoods through Livestock Development in Lao PDR, Tonle Sap Poverty Reduction and Smallholder Development in Cambodia, and

[29] In developing countries today, agribusiness constitutes a large market with a large financing gap. The lack of broad access to financial services limits opportunities for agribusiness enterprises and smallholders to adopt efficient technologies and efficient resource allocation Small agribusinesses are confronted with many difficulties in accessing finance: lack of sufficient eligible collateral, high financing costs, lack of appropriate financial products to meet specific needs of agricultural borrowers, and inadequate access to information on available financing schemes.

Agribusiness Development Project in Bangladesh). However, no use of business models to help identify the credit needs of different value chain participants is evident.

1. Relevance of Design

69. Project designs usually allocate credit for increasing production—almost exclusively for inputs such as fertilizer, agrichemicals, small cultivation equipment, seed, and improved genetic material, or to extend livestock herds (Community Livestock Development in Nepal). While this approach is relevant to increasing production, it lacks flexibility over the use of credit for supporting other market-driven activities, particularly those further up the value chain. The use of processors as conduits for credit delivery is one approach to link production credit to market and value-addition opportunities. Credit support for farmers in the Henan Sustainable Agriculture Project in the PRC is provided through the processors and, although largely production orientated, has the potential to allow processors to direct how credit may be used. For example the use of credit to buy field bins would reduce damage to apples, reduce handling costs, and improve transit times.

70. Often, available credit modalities are not able to finance postproduction activities and little direct support is provided to market intermediaries, processors, and traders as much of the support is primarily aimed at farms. The aim of Cambodia's Tonle Sap Poverty Reduction Project was that it should be demand driven and able to support postproduction activities. However, project credit lines were primarily aimed at livelihood improvement groups involved in production rather than downstream activities. The Viet Nam Central Region Livelihood Improvement Program had similar limitations.

71. Two of the projects in Bangladesh are good examples of how ADB project design has evolved, moving beyond supporting only supply-side activities. In Bangladesh, the Second Livestock Development Project intended to cover a range of postproduction activities for smallholder farmers, while the Agribusiness Development Project includes downstream agribusinesses and value chain activities (e.g., collection, storage, processing, and transport of agricultural produce).

2. Effectiveness of Credit

72. The effectiveness of credit in encouraging value chains is limited as it is mostly given for production and directed at producers rather than other participants in the supply and value chain for value-adding activities. The benefits related to credit delivery to producers are derived from the use of more inputs with a corresponding increase in outputs. Credit-delivery mechanisms often restricted producers from using the funds flexibly. In the case of the Lao PDR Smallholder Project, access to credit is limited to purchase of fertilizer and agrichemical inputs from rice millers or traders. In the PRC's Henan Project, credit is delivered in the form of specific inputs from processors and does not allow farmers to try out new technology that might add value. The Bangladesh Agribusiness Development Project provided credit for inputs where the amount provided was conditional and linked to specific crops. Carrot producers, for example, can obtain 50% of their credit requirements through the project, while litchi fruit producers can only obtain 25%, which effectively ties them to a supply chain. Anecdotal evidence from the case studies suggests that recovery rates, at least during implementation for these production-related activities, are relatively high.

The effectiveness of credit in encouraging value chains is limited, mostly given for production and directed at producers

73. The use of credit in the Nepal Livestock Project went some way toward advancing the value chain approach by providing credit for postproduction activities such as milk-processing plants, milk-chilling centers, abattoirs, and slaughter slabs. These investments form an essential part of supply chains where health and food safety are supported by regulations. They would be part of value chains if processed products were differentiated from traditionally processed products for high-value markets.

74. While credit in the Bangladesh Second Livestock Development Project was intended to also cover a range of postproduction activities, the major focus has been on smallholders at the expense of other value chain participants. Project mission documents report that the provision of credit stimulated interest in production activities to the point where demand for credit exceeded supply, but that credit was not being used to improve postproduction activities. Similarly the objective of the credit component of the Bangladesh Agribusiness Development Project includes downstream agribusinesses and value chain activities (e.g., collection, storage, processing, and transport of agricultural produce), and was extended to include upstream activities as well (e.g., provision of inputs, machinery, fertilizers) The project review missions [30] observed that more large-scale beneficiaries were engaged in production-related activities than in postproduction activities. The Evaluation Mission confirmed this observation, noting that only limited project activities were directed toward small-scale value chain activities such as processing, packaging, and/or marketing in order to obtain a more balanced lending program.

75. Support for processing in the Bangladesh Agribusiness Development Project has been limited to small-scale processing. Loans were made available through microfinance institutions, which allowed processors to purchase raw materials. However, loans for equipment have not yet been disbursed. The field study found that spice processors are able to make a profit margin of up to 100% by using simple drying and grinding equipment.

76. The EKS did not find any credit provision for market intermediaries. Project staff and microfinance institutions in each country stated that they had no models for providing security to lend through the project. Provision of credit to these participants was left to commercial banks. Lack of investment in areas such as cold chains, grading, and packaging, which are particularly relevant for high-value crops, is a major constraint to the development of value chains. A major barrier to credit is the perceived risk associated with the transient entrepreneurial activities of entrepreneurs, such as traders and retailers. Business models are needed to assist in identifying how credit should be delivered to these participants.

D. Innovations and Technology

77. Most projects (89%) provided TA for improving supply (on-farm) productivity. These included support for improved production technologies, enhanced agricultural research, and extension support services. Nonproduction TA activities, which relate to the value chain approach, addressed the need to provide continuous capacity development and training to a wide range of potential value chain participants with particular attention to group formation processes, agribusiness awareness, agroprocessing, and postharvest handling skills. Support was also provided to prepare business plans and properly manage commercially-oriented enterprises. A greater focus on innovations related to AVC development is needed.

[30] Back-to-office reports from 2006–2010 for the Agribusiness Development Project in Bangladesh.

1. Relevance of Design

78. For project design, innovation is frequently mentioned but it is usually confused with technology; its application is overlooked in project implementation. The nature of innovation requires experimentation, incubation, and eventually adaptation. These are necessary for developing and maintaining competitiveness within value chains. However, it is often difficult to implement within project processes, which are better suited for introducing known technical solutions.

79. Technical support for production is usually in the form of technical packages that commonly include identification of high-yielding seeds and genetic material, adoption of integrated pest management practices to minimize the use of agrichemicals, soil and water conservation techniques, organic farming, and herd management and animal health (Tajikistan Irrigation Rehabilitation, Nepal Community Livestock Development, Lao PDR Northern Region Sustainable Livelihoods through Livestock Development, and Supporting the Community-Managed Livelihood Improvement, and Sri Lanka Aquatic Resource Development and Quality Improvement). Technology assistance is usually provided in association with training for the target group, either in the form of strengthening existing extension services or through the use of consultancy services.

80. Technical packages for producers contributed to the development of value chains by addressing specific market requirements, for example, organic production, improvements to quality and reduction of blemishes, and introduction of varieties specific to specialty markets. These technologies feature in the Nepal Commercial Agriculture Alliance Project, the Lao PDR Smallholder Project, and the Bangladesh Agribusiness Development Project.

81. Project designs for TA in postproduction activities provided more scope for value addition. Less than half of the projects reviewed (43%) had postproduction support covering postharvest technology and storage, product quality improvement and development, and processing. Support for improving and developing processing capacities and enterprises was often complemented with the provision of related support services such as training in the area of food safety (Sri Lanka Aquatic Resource Development and Quality Improvement). The introduction of postproduction technology in the Nepal Community Livestock Project involved milk chillers and improved slaughtering techniques to maintain quality and meet changing market demands for hygiene. These technical inputs are essential requirements for supply chains, and with the development of product differentiation and branding could contribute to the formation of value chains.

82. The designs of the Bangladesh Agribusiness Development Project and the Nepal Commercial Agriculture Alliance Project emphasize market-driven, postproduction, value chain technology and training. Storage, packaging, transport, and development of new products were the areas identified for improvement. ADB support for postproduction value addition in the Lao PDR Smallholder Development Project was in the form of grants for producer groups to purchase winnowers, driers, and graders that would allow them to enter the rice seed value chain.

83. Project designs often view research and technological innovations as standalone activities that are not sufficiently linked to market demands and project activities. Nevertheless, the EKS found a number of positive examples, where research

and innovation contribute to project objectives. The Sri Lanka Plantation Project supported research for developing more efficient manufacturing machinery, new products, blends, and packaging that would cater to the changing demands of the global consumer. Programs funded under Viet Nam's Agriculture Sector Development Program centered on increasing capacity to develop market-led value-addition technologies and quality improvement of agro-based products. The PCR [31] for this project notes that the project successfully strengthened links between research and extension, encouraged more extension services from the private sector, and ensured the effective delivery of agricultural extension services in the provinces. Only one project reviewed discusses product innovation; another mentions market innovations.

2. Effectiveness

Assistance for technology and innovations is not particularly geared to value chain innovations

84. From the case study countries, assistance for technology and innovations is not particularly geared to value chain innovations. For example, little emphasis was placed on technologies and innovations for processing, marketing, product differentiation, and quality assurance. The case study projects were not linked to national research institutions that would provide ongoing technical inputs and innovations. The introduction of technology in most cases was based on prior research outputs or on a turnkey approach rather than on project-led requirements that would provide value chains with a competitive advantage. A noteworthy innovation from the PRC was that the projects actively linked productivity improvements to environmental quality.

85. The technical support has generally been successful in increasing production but with mixed results related to value addition. The Lao PDR Smallholder Project introduced new technology and training to produce rice seed and increased household incomes up to 112%. This was due to a 10% increase in yield and a 92% increase in price as a result of improved quality. For producers of paddy, output increased by 13% through improvements in production technology; price increased by 58% due to improved quality. The household incomes of maize producers rose by 55% and vegetable producers by 37%, largely through price increases from improved quality. In the case of cereals, quality improvements have come from improved drying and grading. Vegetable farmers did not carry out any value-adding activities and relied instead on reducing transit times to ensure better market opportunities. In the case of swine producers, the field survey found that although they managed to increase their productivity they lost up to 16% of their income as a result of marketing issues.

86. The Bangladesh Agribusiness Development Project showed a comparatively lower impact on producers. The introduction of new technology was not well organized and production increases for a number of high-value crops such as carrots, turmeric, and litchi fruit averaged only about 10%. Similarly, the delivery of proposed training programs was sporadic and production increases from improved husbandry were estimated at less than 5%. Even these small increases in yield were offset by increased cost of inputs and, for the three selected value chain crops, household income did not increase as a result of project activities.

87. The Commercial Agriculture Alliance Project in Nepal provided training to subsistence and semicommercial groups through the establishment of the Commercial Agriculture Alliance Company. The company provided financial support for the construction of a vermin-compost plant. Gorkha Tea Estate, a large-scale processor of organic tea and the service center for the tea subsector provided technology and

[31] ADB. 2009. *Completion Report: Agriculture Sector Development Program in Viet Nam*. Manila.

training inputs in the form of picking techniques and the application of vermi-compost to members of the Eco-Tea Cooperative. Organic tea contributes up to 35% of household income; the use of vermin-compost is estimated to increase production by 20%. The Commercial Agriculture Alliance Company has assisted in the development of commercial tomato producer groups; however, project training and technology support for this group at the time of the field survey was restricted to assistance in writing funding proposals. Improved varieties together with the use of fertilizer are expected to increase yields by approximately 40%.

88. The Commercial Agriculture Alliance Company has been proactive in researching market requirements for processed products and emphasized product differentiation activities including introducing quality assurance systems and upgrading primary processing through grading, processing, and packaging. While this approach has met with some success for the production and branding of organic tea, the Evaluation Mission observed that its application to other products was inconsistent. In one instance, the mission found that the production of fruit juices for the domestic market was carried out under substandard conditions with limited quality control, although the processor had received support from the Commercial Agriculture Alliance Company fund.

89. In the PRC, new high-yielding varieties of apples, dates, and asparagus, as well as improved husbandry techniques were delivered to Henan farmers through processing companies or through municipal horticulture departments. Delivery was well structured and organized. Yields for project apple producers were anticipated [32] to be 20% higher than nonproject sites, and prices were expected to be 100% higher in project sites as a result of improved quality. Nonproject sites for Chinese dates yield only 8.5% of the anticipated yield in project sites; the difference is attributed to the introduction of correct pruning techniques for project farmers. Finally, also in the PRC, several projects (Dryland Sustainable Agriculture and Fujian Soil Conservation and Rural Development II) were innovative in that they linked support to production and enterprise development with the prevention of land degradation and improvements to the natural resource base (soil and water).

E. Infrastructure Development

90. Infrastructure investment was a feature in 47% of the projects reviewed. These included mainly the construction and upgrading of roads, and storage and market infrastructure for wholesale and retail trading. Road infrastructure focused on developing intervillage (Lao PDR Northern Region Sustainable Livelihoods through Livestock Development) and subdistrict roads, pathways (Sri Lanka Aquatic Resource Development and Quality Improvement, Lao PDR Northern Region Sustainable Livelihoods through Livestock Development, Nepal Commercial Agriculture Development, and Viet Nam Quality and Safety Enhancement of Agricultural Products and Biogas), and bridges to connect to market networks to facilitate the exchange of agricultural products. This approach relates to a key aspect of promoting value chains by linking high-value crop production areas to strategic commercial markets with the aim of reducing transit time and ensuring continuity of supply of both inputs and outputs.

[32] At the time of the field survey, the project orchards for apples were not in production. Proxy indicators were used to estimate potential yields from project orchards based on the adoption of best practices. Project date orchards were still in the early stages of development. Project asparagus gardens had been established and data from these were used.

1. Relevance of Design

The design of infrastructure support has largely been in roads and market structures, as projects assume the major constraint is connectivity of farmers to markets

91. The design of infrastructure support for commercial agriculture projects has largely been in the form of roads and market structures and to a lesser extent postproduction storage structures, as projects assume the major constraint is connectivity of farmers to markets. The relevance of this investment assistance to the development of value chains is largely dependent on whether roads link production areas for high-value crops to high-value markets. In general this has not been the case and prioritization has usually been on the basis of improving market access for marginalized groups. A further shortcoming in some designs is that no corresponding input has been provided to develop transport logistics, particularly those designed around the timely delivery of perishable products.

92. In project design, the construction of markets is based on (i) a perceived lack of space for retailers and wholesalers, and (ii) the notion that increasing space will result in increased transactions and lead to a market-driven approach. This logic is frequently undermined by challenges during implementation such as local nuances surrounding spot markets, including poor location and elite capture. Additional problems that can diminish the positive impact of market buildings are related to design features such as lack of basic washing facilities and appropriate storage areas.

93. In most cases the potential of storage structures has not been prioritized and their use has been poorly integrated into project implementation. Storage facilities are incorporated into project designs to either improve transport logistics and/or provide farmers with increased opportunities for marketing and negotiating power. Important adjuncts to infrastructure development in the value chain context, such as telecommunications, electricity, and transport hubs are generally overlooked.

2. Effectiveness

94. The case studies found that the infrastructure developed was useful but not always optimized for value chain development. The Commercial Agriculture Alliance Project in Nepal used a participatory approach to determine the location and purpose of its markets. However, the Evaluation Mission noted that a market constructed in Biratnagar did not appear to be serving its intended purpose as a place for retailing fresh produce, and the stallholders were engaged in retailing a range of imported goods. Adjacent to this market was a vibrant wholesale and retail market that is not connected in any way to the project market. Making a connection between market structures that have been designed for spot market trading and the development of value chains is at best rather tenuous. For example, the Lao PDR Smallholder Project is constructing market structures that will serve spot market traders and retailers. While these markets primarily serve the domestic market, opportunities are provided to locate them close to border crossings. This would assist in promoting trading with Thailand and provide more direct impetus for the development of competitive value chains that would be controlled by local producer groups rather than by traders in Thailand.

95. This is consistent with the 2009 IED SES on rural roads, which found that rural roads might be necessary but not sufficient for inclusive development.[33] Developing adequate synergy between investment in rural roads and other support services and development interventions is important. The services may include ensuring access to

[33] IED. 2009. *Special Evaluation Study: Asian Development Bank's Contribution to Inclusive Development through Assistance for Rural Roads*. Manila: ADB.

and use of technology, finance, market information, reliable transport service management, and meaningful livelihood opportunities.

96. Project inputs into storage structures vary from simple on-farm storage structures to the provision of cold storage at the other end of the supply chain. The intent in all cases is that storage facilities would assist in maintaining quality and improving salability. The Bangladesh Agribusiness Development Project provided for investment in storage structures that would contribute to the development of value chains. Similarly, the Commercial Agriculture Alliance Project in Nepal provides for investment in storage facilities. The Lao PDR Smallholder Project has incorporated storage facilities into rice-processing units, allowing groups to maintain quality and sell when market conditions are favorable. Where market infrastructure does not exist or is not fit enough to serve its purpose, projects have made provisions to either construct new markets or rehabilitate existing structures. In the IED survey, the Lao PDR smallholder respondents, particularly in Champasak Province, commented that the lack of storage facilities, primary markets, and electricity was having a negative impact on their market opportunities and on the use of postharvest processing equipment.

97. To date, results related to road infrastructure are limited in the case study projects. The Lao PDR Smallholder Development Project provided support to rehabilitate existing roads and constructed new interdistrict, all-weather roads and bridges to link with new and upgraded markets. Most of the road infrastructure provided under the project has been completed and only 8% of the IED survey respondents reported benefits. Of those that did not feel access had been improved, 37% experienced problems particularly during the rainy season. Most of the road infrastructure provided under the Bangladesh Agribusiness Development Project did not have an infrastructure component. Benefits to producers from roads constructed under the Rural Infrastructure Improvement Project have been limited, since project priorities may not have included the needs of agribusiness stakeholders.

F. Market Access

98. Support to marketing was a feature in 66% of the projects reviewed. This support established and strengthened market linkages and networks that connect farmer-producers with other stakeholders. The intent was that these links and networks would prepare for improved market access and either increased volume of existing supply chains or value-adding activities. A number of TA projects (PRC Strengthening the Capacity of the Sanmexia, Mongolia Agricultural Marketing and Brand Development, and Lao PDR Marketing Support for Organic Produce of Ethnic Minorities) supported the introduction and expansion of contract farming arrangements, establishing guidelines for partnerships.

1. Relevance of Design

99. Commercial agriculture project designs, while acknowledging the importance of a market-based approach, have largely adopted a production-driven approach to developing and improving market access based around low-value spot market trading. These are usually domestic, low-end traditional markets based on spot trading that transmit weak incentives concerning market developments to producers. The absence of components to support key market drivers, such as competitiveness and product differentiation from project designs, precludes the formation of value chains that develop around responses to market needs. Contract farming, particularly for

processing, has started to gain acceptance though it has not yet been linked to high-value markets.

100. Market competition, which is a key requisite for the development of value chains is usually lacking in markets where demand exceeds supply. This was the case in the Lao PDR Northern Region Sustainable Livelihoods through Livestock Development that, although based on a market-driven design, is unlikely to result in the formation of value chains. The current shortfall in production negates the development of a competitive environment.

101. Product differentiation is also a key value chain element in increasing competitiveness. The Lao PDR TA on Marketing Support for Organic Produce of Ethnic Minorities focused primarily on maintaining product quality through packaging and appropriate storage and farm-gate to market transport logistics. This provided the basis for supporting a branding campaign. A similar approach was used for fish marketing in Sri Lanka in which the project supported postharvest activities that differentiated local fish from imported products. Branding as a means of developing product differentiation underpins the one village–one product concept in Nepal. The development of quality and certification requirements for local produce was a feature of the Pakistan Agribusiness Project in which specifications were developed to satisfy international standards such as Codex Alimentarius and Global Agricultural Practice.[30] The establishment of joint ventures with multinational companies has also been used to increase quality assurance and standards. This link to multinationals is important as quality control cannot be achieved and maintained by providing training inputs to a sector of the chain. It requires investment in capital and human resources from producers to end markets and regulations that govern responsibilities and actions.

102. Many project designs include capacity-building components for facilitating improved market access. This has usually taken the form of training of entrepreneurs to improve the management and operation of SMEs, particularly with regard to financial systems, identifying and capitalizing on market opportunities, and developing linkages (Sri Lanka Southern Province Rural Economic Advancement). The range of business services for SMEs was extended in the Forests for Livelihoods in the Central Highlands Project in Viet Nam to include advice on product information, packaging, market promotion, market analysis, and management of investments. Other forms of capacity building included attendance at conferences, workshops, and trade fairs that promoted collaboration between producers and agroprocessors, and the creation of specific linkages in the supply of raw materials and marketing of produce (Lao PDR Northern Region Sustainable Livelihoods through Livestock Development).

103. The promotion of contract farming in project design, particularly between farmers and agroprocessors, is seen as a strategy for improving market access in most projects. Contract farming also provides a mechanism for backward linkages to support technology transfer, and contractual and partnership arrangements between farmers and agroprocessors or agroenterprises to promote agribusiness. Contract farming was promoted in Papua New Guinea and successfully taken up by Pacific Spices for smallholder production of spices for oil extraction. The Dryland Sustainable Agriculture Project in the PRC has promoted partnerships between farmers and dragon-head agroenterprises to strengthen competitiveness in domestic and export markets through a farm-to-market, value chain approach in which processors pay a premium for graded produce.

104. No examples are available of projects that have developed contract farming between farmers and high-value markets. Under these contracts, the value chains are generally very short with most of the value being created by the farmer in meeting specific market requirements specified under the contracted price.

2. Effectiveness

105. Much of the experience from case study countries to improve market access involves capacity building and contract farming. Success of capacity-building components in helping access to market opportunities depends on market conditions. For example, in the Bangladesh Agribusiness Development Project, which supported entrepreneurial training for smallholder farmers, the Evaluation Mission concluded from its field observations that not enough markets could respond to a value chain approach through price differentiation for improved quality and participate in the development of upstream linkages. In the Lao PDR Smallholder Project, which promoted the strengthening of wholesale marketing operations by market intermediaries, the Evaluation Mission found that this approach was successful in the case of rice seed, which is now supplied to farmers in other provinces, and in the case of fresh vegetables traded across the border. However, it was not successful in the case of livestock where market intermediaries appeared to operate as a cartel with slaughterhouses.

Much of the experience from case study countries to improve market access involves capacity building and contract farming

106. The experience with using contract farming to increase market access for farmers has been mixed. The PRC Henan Sustainable Agriculture Project linked farmers to both processing markets and fresh markets (PRC Fujian Soil Conservation and Rural Development II). The market for second-grade produce was enlarged through an increase in the processing capacity of dragon-head agroenterprises and through improvements in quality to international standards. Farmers are linked to processing markets through contracts with processors that involve provision of technical services and inputs in return for buy-back agreements. While these contract agreements for processing provide little opportunity for producers to add value, the arrangement has provided financial security for producers and leaves them free to sell high-grade produce on the fresh market.

107. In the Henan Sustainable Agriculture Project, producers and processors are linked by the project tying financial assistance to processors with obligations to buy off producers. For Chinese dates, apples, and asparagus, the processors set the prices. With no fresh market for asparagus, the processor represents the end market placing producers in a vulnerable position. Apple producers benefit from processors, as approximately 20% of the apple production in Henan is processed and most of the apples are second grade and would otherwise have no market value. Sales proceeds from these apples cover 25% of the producers' production costs. About 30% of the Chinese dates produced in Henan are sold under contract to processors, as with apples this is second-grade produce. While the income from processed dates is only 13% of total income, it contributes to 50% of the production costs.

108. The Nepal Commercial Agriculture Alliance Project, which attempted to establish contract-farming agreements between producers and processors, particularly for vegetables, met with problems due largely to lack of clarity around agreements, the commitment of processors, and the unwillingness of producers to supply a single market. Lack of a regulatory environment that can support contracts constrained the Lao Smallholder Project in promoting contract farming. While the project has had some success in developing producer contracts with Thai-based companies, widespread

acceptance will require (i) contract law in the Lao PDR to provide legal status for this arrangement, and (ii) ensuring that the parties entering this form of contract are fully aware of the risk and the sharing of this risk. The Cambodia Tonle Sap Poverty Reduction and Smallholder Project anticipated the establishment of contract farming and efforts were made to develop national guidelines. A subdecree for contract farming was developed under the Agriculture Sector Development Program.

109. The negotiating position of smallholders could be compromised if they become locked into conditional supply contracts. The Evaluation Mission in Nepal observed an example of this. Although poultry farmers were tied to supply contracts with Valley Cold Stores, buying preference was given to farmers who purchased all inputs through the company.

110. Support for marketing in the Lao PDR Smallholder Project has involved the promotion and strengthening of wholesale marketing operations by market intermediaries, who collect and consolidate small quantities of produce from individual farmers for onward transshipment to local retail marketing points and to cross-border marketing points in neighboring countries.

G. Information Services

111. The provision of market information services is a common feature in the commercial agriculture projects reviewed and is generally included within a market-access project component. The purpose is largely to provide feedback on prices to producers that will allow them to establish a stronger negotiating position. Information systems are usually set up and operated by government agencies involved in agriculture and commerce, although in some instances the government has contracted out the establishment and provision of market information services to NGOs. While some innovative techniques have been employed to gather and disseminate information, it is often out-of-date before it reaches farmers. Little attempt has been made to extend the range of information beyond market prices for producers to include other participants, as well technology and innovation.

112. In some cases, the private sector has been more responsive to farmer-market information needs. For example, designed to address information gaps, Nokia Life Tools is the first and the largest mobile life improvement information service suite in emerging markets. Based on short-messaging systems (SMS), the subscription information service has already reached a significant scale (50 million users), in part due to the service design, which makes it accessible to customers who have simple, low-end handsets. Nokia was responding to farmers' needs for actionable information that is locally relevant and storable for future reference. They have partnered with over 18 mobile network operators to expand the service from India to Indonesia, Nigeria, and the PRC. [34]

1. Relevance of Design

113. Most project designs intend to provide market information on prices. For the Viet Nam Agriculture Sector Development Program, an information system was established to improve producer response to market demands. Information provided

[34] Business Fights Poverty. 2012. The Market Opportunity for Mobile Agriculture: Highlights from the Mobile World Congress. Available: http://www.businessfightspoverty.org/.../the-market-opportunity-for-mobile-agriculture-highlights

covers market prices of a wide range of products. In addition, farmers are able to obtain information on the price of inputs (e.g., fertilizers, pesticides, seedlings, breeding animals, and petrol) as well as an analysis of market demand. However little backward flow of information occurs on market out-turn and consumer feedback on product innovations that might add value and improve project outcomes. The Nepal Livestock Development Program did not support a market information system and instead relied on feedback from the milk processors about quality and market prices.

114. An inherent problem with information systems, particularly those that relate to marketing, is that frequently the information is out-of-date before it is disseminated. Obtaining price information is essential for improving the negotiating position of producers with traders and processors. In project designs, a number of approaches for obtaining up-to-date market information were introduced. The Indonesia Sustainable Aquaculture Project introduced a system that links to the Directorate General of Aquaculture and enables fish farmers and private enterprises to gain access to real-time data on market prices, supply and demand, and other market-related information for various aquaculture products. Another mechanism for obtaining real-time prices was the development of software for automated tea auctions and electronic trading in the Sri Lanka Plantation Project. The Indonesia Poor Farmers' Income Improvement Program developed a national farming website that serves as a source of information for both farmer-producers and traders, and eventually as a platform for agricultural trade. The Cambodia Tonle Sap Poverty Reduction and Lao PDR Smallholder Project supported access to agricultural information and data through the development of e-kiosks and support services in commune centers.

An inherent problem with information systems, particularly those that relate to marketing, is that frequently the information is out-of-date before it is disseminated

2. Effectiveness

115. No attempts were made to extend the range of information beyond market prices for producers to include other participants, technology, and innovations. Even the effectiveness of encouraging value chains by supporting market information systems for pricing depended on overcoming the inherent problem that the information is frequently out-of-date before it is disseminated. For example, access to market information for participants in the Henan Sustainable Agriculture Production Project in the PRC was to be improved by developing a network of private sector information points linked to local government information services. The primary objective was to provide information to farmers to improve their ability to negotiate input–output arrangements with agroenterprises and respond to market demand. However limited use has been made of the system due largely to delays in collecting and disseminating information. Consideration is being given to replacing this approach with a futures trading system.

116. The benefits of market information systems for producers in all four case studies were difficult to measure. In each case, project staff and producers stated that market information systems were slow in disseminating information. Market information for the Lao PDR Smallholder Project was gathered by the Department of Industry and Commerce and disseminated through a variety of different methods including leaflets, notice boards, and mobile-phone messages. Approximately 50% of the producers interviewed stated that this system had increased their knowledge of market prices. Some producers also felt that large stakeholders had a dominating influence on market prices and that they could do little to improve their negotiating position.

117. The Bangladesh Agribusiness Development Project has relied on market intelligence gathered and disseminated by the Department of Agriculture Marketing on a monthly basis. Producers felt that it had not improved their negotiating position. Some producer groups receive information through linkages to markets established by the project. In Nepal the Eco-Tea Cooperative receives regular feedback from customers in India and Germany. The Commercial Agriculture Alliance Project in Nepal has linked information of local markets with the Agriculture Market Information System to provide the daily market price of fruits and vegetables. It is in the process of establishing linkages with India and Bangladesh markets. The field survey team noted that tomato traders rely on radio to establish spot prices.

H. Organizations and Linkages

118. Producer organizations are membership-based organizations with elected leaders accountable to their constituents. They are often commodity based, advocacy (farmer unions), or multipurpose. Of the projects reviewed, 75% included activities to support producer supply chains through the formation of organizations and linkages to improve the delivery of inputs, such as credit; facilitate changes to production techniques; and build capacity. Other assistance for organizations has involved building the capacity of industry groups to promote regulatory reforms, quality assurance, product improvement, market intelligence, and strategic alliances and collaboration with public and private research and development institutions.

1. Relevance of Design

119. The formation of producer organizations has also been used to help with the delivery of services and empower communities, in particular poor people and other vulnerable groups. In these situations, project support has involved developing institutional governance through the promotion of training to develop group cohesiveness and build management capacity for a range of activities, such as credit management (Sri Lanka North East Coastal Community Development). Multipurpose cooperatives and commercially-oriented farmer groups were formed under the Community Livestock Project in Nepal with the objective of focusing on common problems of input supply, animal husbandry, and quality; and to improve the negotiating position in the formation of supply contracts. Groups for the Henan Project in the PRC were also based around technology and training inputs; however, household groups were also formed to allow farmers to enter into supply contracts for inputs and contract selling to the processors under the umbrella of an overarching village contract. Producer organizations implemented under the Lao PDR Smallholder Project have a value-adding focus in which farmers retain ownership of the product and pay a service fee for value-adding activities such as drying and grading, while contributing to the financial viability of the processing plant. Membership in a group is a prerequisite to participation in the Nepal Commercial Agriculture Alliance Project for semicommercial and subsistence farmers. Groups are provided with access to credit and training that covers social mobilization, business management, and production skills.

120. Project activities to assist in forming postproduction groups, such as those involved with bulking, grading, and marketing, are not common features in project design. Postproduction organizations assist supply chains in reducing the risk of over and under supply; however they are not essential for the market. Postproduction organizations however are pivotal to value chains in ensuring that market-led product specifications are met and that quality products are delivered. Without more emphasis on the formation of postproduction organizations, little progress can be made in

developing value chains. A notable example of support for postproduction is the inclusive value chain approach to group formation supported by the Commercial Agriculture Alliance Company component of the Commercial Agriculture Alliance Project in Nepal. Producers, traders, and processors are all members of the Commercial Agriculture Alliance Company, which is to bring together value chain stakeholders and to use a participatory approach to address common problems of supply, quality, and marketing.

121. A number of project designs facilitated market linkages through the formation of organizations for developing networks and improving connections between markets and other stakeholders. While the role of organizations is usually defined in the project design, the nature and purpose of the linkages between organizations and the activities that will support those linkages is vague. For value chains to develop, the role of the linkages in meeting market demands needs to be clearly defined. The Bangladesh Second Participatory Livestock Project has supported the development of strong supply-chain linkages between milk producers and processors. These linkages however are transactional and lack value-adding drivers that will assist in developing competitive advantages for participating stakeholders. The Kyrgyz Southern Area Agriculture Development Project supported informal groups and cooperatives to develop linkages and networks between farmers with agribusinesses. Support was also provided to cooperative groups to identify, negotiate with, and conclude equitable contracts with buyers and enterprises associated with collecting, preparing, and transporting produce to markets. The cooperatives are also used as delivery mechanisms for market information and technical knowledge.

Project designs facilitated market linkages through the formation of organizations for developing networks and improving connections between markets and other stakeholders

2. Effectiveness

122. The evaluation mission found that the formation of groups is a key activity in all the case study projects with some positive results already being seen. At this stage, the benefits from forming organized groups are difficult to quantify. With the exception of the Nepal Livestock Project and the Lao PDR Smallholder Project, implementing agencies do not see producer group organizations as agents of change and innovation. This could constrain the potential benefits from cooperative organizations in their contribution to the development of AVCs.

123. In the Nepal Commercial Agriculture Alliance Project, the formation of producer groups and the coalescing of these groups into cooperatives has improved the delivery of services and provided advocacy to the government, particularly for issues surrounding supply and demand of imported products. While considerable progress has been made with social mobilization and production training for subsistence and semicommercial groups, marketing remained on an individual basis, making it difficult to leverage the advantage gained through larger volumes to negotiate price. It was not clear how the group would become sustainable when the project was completed.

124. Project activities in the Bangladesh Agribusiness Development Project also involved facilitation and promotion of linkages between entrepreneurs throughout the value chain. The project identified 18 value chain links in 2010, and started establishing linkages between the small entrepreneurs and the chain and superstore operators in the upstream market. However the Evaluation Mission found little evidence to support this, as postproduction organizations were underdeveloped making the formation of downstream value chain linkages difficult. The mission did, however, note that private sector initiatives had developed market linkages through expatriates living in the Emirates for the export of fresh produce.

125. An association formed by stakeholders in the Bangladesh Agribusiness Development Project for marketing vegetables, fruits, and spices, established linkages with retail outlets in Dhaka. The project assisted in forming marketing organizations to improve the negotiating position of farmers and develop market linkages through the appointment of an agent. In some cases, the groups have been able to sell directly to the retail market. The elimination of traders and other entrepreneurs has substantially increased the producers' percentage of the retail price. Turmeric producers receive 80% of the retail price, carrot producers 70%, and litchi fruit producers up to 50%. These figures compare favorably with producers in developed countries who frequently receive less than 30% of the retail price.

126. The Lao PDR Smallholder Project formed 137 production and marketing groups representing 6,500 households. These are multipurpose organizations established to provide advocacy for farmers and improve marketing opportunities and efficiencies for service delivery. However quantifying the financial benefits they provide is difficult. For rice-seed producers, these groups have been pivotal in providing structure for postharvest processing and quality control, as well as in the collective selling process. The groups also helped form contact points for contract farming with Thai traders and local rice millers. Rice producers however sold individually to traders at prices determined by the market. The Smallholder Project supported the development of a swine collector group, but this organization failed due to fluctuating market demand as the slaughterhouses preferred to buy from others.

127. In the PRC, group organization for cooperative activities is often met with stakeholder resistance as it has connotations carried over from previous political environments. Group organization in Henan revolves around delivery of training and development of supply contracts with processors. Households are effectively represented through the village council. It was not clear from the field survey how much influence households have over the negotiation of contracts and if they are able to influence prices.

128. The importance of linkages between various value chain stakeholders has been emphasized in all case study projects. Project activities for developing linkages were primarily about establishing contacts between producers and markets with some cases of successful linkages made between producer groups and markets. Box 4 provides an example from Nepal. However, no evidence is available of attempts to form cooperative groups comprising postproduction participants, such as traders, entrepreneurs, and retailers that would assist in developing linkages between value chain participants and define their roles and responsibilities.

Box 4: Going Organic—Linkages, Value Addition, and Social Inclusion

Organic tea marketing in Nepal comprises a myriad of stakeholders who have important roles in the value chain process. The Eco-Tea Cooperative was formed in 2005 from an existing farmer group in Kolbung of Ilam district of Nepal. Membership is open to anyone producing tea and includes women and ethnic minorities. Of 106 members, 49 are from ethnic minorities, 2 are from very poor groups, and small landholders make up the remainder. The main function of the cooperative is to seek financial and technical support, manage organized organic tea-leaf production, share knowledge, and monitor the organic mode of production. The cooperative is producing vermin-compost for its tea production. The vermin-compost plant was established with assistance from the Commercial Agriculture Alliance, a parastatal public enterprise supported under the Asian Development Bank's Commercial Agricultural Development Project.[a] The cooperative also receives support on training and technology from the Tea Sector Service Center and the Commercial Agriculture Alliance.

The cooperative sells green tea leaves to the Gorkha Tea State (GTE), a large-scale processor, through a formal written agreement whereby GTE agrees to buy tea leaves and the cooperative agrees on an exclusive supply contract for organically produced tea. GTE assigns two cooperative members to monitor the quality, and in addition provides technical resource personal from Hyderabad and Darjeeling to provide training on picking and preparing compost.

GTE sells processed tea to importers in India and Germany. Representatives of Indian buyers either come to the processing plant from Calcutta or ask for samples of green leaves. On the basis of the quality of the sample, the price is negotiated before harvesting. The importers regularly provide feedback on product quality and consumer preferences. Twenty percent of the processed tea was exported to Germany with the remaining 80% to India. The better quality tea goes to Germany with a wholesale price of $9.6 per kilogram and retail price of $70–$80 per kilogram. By contrast, tea exported to India is sold at $5.5 per kilogram and retails for $7–$9 per kilogram.

[a] Asian Development Bank. *2006. Report and Recommendation of the President to the Board of Directors: Proposed Loan to Nepal for the Commercial Agricultural Development Project.* Manila.

Source: Independent Evaluation Department.

CHAPTER 5

Inclusion and Benefits to Key Stakeholders in the Value Chain

A. Agricultural Value Chain Stakeholders

Support to traders and other market intermediaries in all case study projects was limited, and presented a constraint to optimizing benefits from value-adding activities

129. Support to traders and other market intermediaries in all case study projects was limited, and presented a constraint to optimizing benefits from value-adding activities. Returns to traders vary in each of the case-study projects, but in general their financial survival depended on large volume outputs rather than value-adding activities. The only form of support provided to traders in the Bangladesh Agribusiness Development Project was credit to expand their buying operations. Profit margins for traders dealing with the three high-value crops surveyed are very small: $0.02/kg for carrots, $0.05/kg for turmeric, and $0.004/kg for litchi fruit. The small margins imply that traders have to move large volumes to obtain a profit. In the PRC, no project support has been provided for apple traders in Henan. The traders perform no value-adding activities apart from the service of collecting and transporting. The presence of a processing sector increases demand for apples and hence increases traders' income. In Nepal, the Commercial Agriculture Alliance Company is not yet at a stage where it can provide effective inputs for traders. Currently traders pick up from the farm-gate, sort, grade, and package tomatoes before delivery to wholesalers. The profit margin for traders is about 15% of the farm-gate price.

130. In all case study projects, support was provided to processors with the objective of increasing market opportunities for producers. The Commercial Agriculture Alliance Company in Nepal provided matching grant funds to upgrade the boiler capacity for a fruit and vegetable processor in Sunsari district. At the time of the survey, the boiler was in the process of being commissioned and data collection was not possible on increased capacity or the upstream impact this might have on increasing production demand.

131. Processing equipment was provided for rice seed and maize-processing groups in the Lao PDR Smallholder Project on a grant basis. Both processors and producers benefit from increased incomes due to quality improvements brought about by improved drying and grading technology. In the PRC, project support for processors in Henan has been in the form of financing to upgrade or purchase new equipment to process apples, dates, and asparagus. The impact of upgraded equipment on profit margins is difficult to assess without a detailed analysis of company records. Most companies interviewed reported around a 10% increase in their profit margins. Increasing the capacity of processors also increased employment opportunities. There were some indirect benefits too. For example, provision of credit to farmers through

the processors provided a cost-effective delivery mechanism in the absence of microfinance institutions and also a means of linking farmers to supply chains. The establishment of a milk powder plant under the Nepal Community Livestock Project provided an alternative market for local producers during times of oversupply and an opportunity to compete against imported products, although it did not increase the price paid to producers.

132. In general, retailers surveyed in the case studies were not supported through any of the project activities. They operated in spot markets characterized by low value and quick turnover. These retailers are unlikely to benefit from activities involving value addition as most consumers are in low socioeconomic groups and cannot afford differentiated products made available at high cost. Exceptions to this were the sale of organic orthodox tea to high-end markets in India and Germany from the project in Nepal and limited sales of spices, fruit, and vegetables to retailers in Dhaka from the Bangladesh project. In Bangladesh, the percentage difference between the retail and farm-gate prices for selected high-value crops that were surveyed ranged from 70% for carrots to 275% for litchi fruit. This however does not translate into high incomes for retailers since most work with relatively small volumes and compete against other retailers with identical price structures. For example in the PRC, apple retailers in Henan sell apples at a 100% markup over the farm-gate price, however, volumes can be as low as 50 kg/day. Similarly tomato retailers in Biritnagar obtain a 100% margin above the farm-gate price but deal in small volumes.

B. Poor and Marginal Groups

133. A number of different selection processes have been used to improve the participation of poor and marginal groups in commercial agriculture projects. Most projects used a participatory approach, which included poor and disenfranchised groups during the preparation phase. This approach was intended to ensure that projects were socially inclusive and to embed a sense of ownership and understanding of the objectives among stakeholders (Southern Province Rural Economic Development, Aquatic Resource Development and Quality Improvement, Tonle Sap Poverty Reduction and Smallholder Development, Fujian Soil Conservation and Rural Development II, and Second Rural Infrastructure Improvement). Implementation often involved additional efforts to monitor and assess participation of poor and marginal groups, and to provide supervision and follow up on those who had dropped out (Second Participatory Livestock Development). As with the selection process, the participatory approach has focused on farmers; little attempt has been made to build ownership of a supply or value chain approach involving a wider set of stakeholders.

134. A more targeted selection process was used for the Shanxi Integrated Development Project in the PRC in which at least 50% of the farmer group members were selected from the poor. Some projects used additional selection methods to ensure that project benefits reach households, such as the identification of households where at least one adult woman can be involved in income-generating activities (Second Participatory Livestock Development and Community Livestock Development). The focus of the selection process in all projects was on poor farmers and did not include others who could potentially become supply or value chain stakeholders, such as traders or skilled value-adding workers. The Bangladesh Agribusiness Development Project attempted to develop downstream value chain entry points for disenfranchised groups by supporting training for entrepreneurs. The project aim was that at least 30% of these should be women. The use of gender action plans (Northern Region Sustainable Livelihoods through Livestock Development) to increase the participation of

women involves a wider scope of activities that address particular gender-based disadvantages faced by ethnic women, and often include language training and numeracy training programs to overcome their initial disadvantage.

135. Overall, the inclusion of marginalized groups in commercial agriculture projects has focused on production activities. The evaluation observed [35] that more beneficiaries were engaged in production-related activities than in postproduction activities. This observation was confirmed by the evaluation mission, which noted that only limited project activities were directed to small-scale venture value chain activities such as processing, packaging, and/or marketing to obtain a more balanced lending program.

136. Although support for production has generally been effective, developing commercial agriculture projects that benefit the poor and marginal groups presents a significant number of challenges. Disenfranchised groups are frequently located in remote geographic areas or on poor and unproductive rain-fed soils making the provision of cost-effective input and output logistics difficult. Social mobilization, delivery of credit, and the technical services needed for up-skilling groups can also be difficult to achieve within project time frames. These problems are exacerbated when overlaid with the value chain approach. For example, in some instances the production of high-value crops for high-end markets requires advanced technical skills or quantity requirements that smallholders cannot meet without group marketing, which takes time to develop beyond the project time frame. Similarly inclusion of marginalized groups into postproduction activities requires the development of entrepreneurial skills and confidence to respond to sophisticated market demands.

Recognition of the requirements for marginal groups to participate and staged delivery of inputs over a realistic time frame is a prerequisite to overcome challenges

137. To overcome these challenges, the recognition of the requirements for marginal groups to participate and staged delivery of inputs over a realistic time frame is a prerequisite for the inclusion of the poor, women, and marginalized groups in value chains. However, the kind of poverty and value chain analysis to do so is seldom done together during project design. Because of the lack of poverty- and value chain analysis, including the development of business models, generally no attempt has been made to differentiate the needs of the target group to take better advantage of specific market opportunities. For example, some smallholders may be able to "step up" to commercialize, others will "step out" by working off-farm or through migration, and some may only "hang-in" as they do not have the access or assets to commercialize or move off-farm. [36] Acknowledging the heterogeneity within the marginalized groups is thus important.

138. Delivery of technologies to the poor has been mostly production based, although some projects looked beyond production. In some cases, they covered extension activities for fruit and vegetable cultivation in areas that had a comparative advantage in producing these high-value crops and where poor farmers with limited resources are able to produce these crops. The Nepal Commercial Agriculture Alliance Project recognized the inherent difficulties in moving from subsistence to commercial agriculture, and used a stepwise approach to progress the poor and marginalized into mainstream economic activities. In doing so, this project separated target groups into subsistence, semicommercial, and commercial producers. This approach reflects the need for different stages of development. Lack of access to scarce resources, such as capital, is recognized in most project designs as a barrier to participation of the poor.

[35] Back-to-office reports from 2006 to 2010 for Loan 2190-BAN: Agribusiness Development Project.

[36] A. Dorward. 2009. *Integrating contested aspirations, processes and policy: development as hanging in, stepping up and stepping out.* School of Oriental and African Studies. http://eprints.soas.ac.uk/6167/1/HiSuSoDevTheoryPaperDPR.pdf

Solutions have included improving capacity to access institutional finance; and building up community-based savings and credit groups (Tonle Sap Poverty Reduction and Smallholder Development). Credit for poor groups is most commonly used for planting materials, irrigation infrastructure, and breeding stock, rather than for value-adding activities.

139. To realize the flow of benefits from increased production, commercial agricultural project designs also aimed to connect poor farmers to markets. While the methodologies for increasing productivity in most project designs are usually based on well-defined techniques, processes for establishing market connections are usually less specific and involve generic approaches such as adopting a value chain approach, establishing linkages, or diversifying into high-value crops.[10] The Northeast Coastal Community Development Project in Sri Lanka used a cluster approach to link income-generating activities of the poor with micro, small, and medium-sized enterprises and promoting backward and forward linkages in conjunction with technical and mentoring support provided to ensure that the poor do not remain engaged in low-income production activities. The Nepal Commercial Agriculture Alliance Project has adopted a value chain approach for improving the rural road network. Decisions on the location of roads and supporting facilities lies with district development committees with inputs from village development committees, based on connecting production areas for high-value crops to markets and processors. This is an innovative participatory approach that would assist in positioning roads to meet the needs of those involved in supply and value chains.

140. Although postproduction activities often benefit fewer marginal groups directly, they offer secondary benefits such as off-farm and nonfarm employment. This offers opportunities for marginal groups who may not have the resources to move out of poverty based solely on increased productivity of small farms. Box 5 discusses an AVC project in the PRC with increases in agricultural productivity and employment.

Box 5: Market Creation for Products and Employment

Sanmenxia municipality, given its mountainous topography, is one of the major apple-producing areas in the People's Republic of China. The area has been growing apples since 1927 and the local government recognizes its importance to the local economy. The Asian Development Bank-financed Henan Sustainable Agriculture and Productivity Improvement Project has unintentionally created a market for secondary apples for project beneficiaries. Expanding the capacity of agroprocessors allowed them to accommodate more secondary apples from farmers. In addition to creating more jobs in the orchards and in the construction of processing facilities, this also opened employment opportunities for various participants to engage in the trade. For instance, a trader driving a 20-ton truck to the processor will earn a gross margin of Y100 per ton but he has to pay for the village apple collector, truck driver, loaders, baggers, and other services, indicating that employment is created.

[a] Asian Development Bank. *2007. Report and Recommendation of the President to the Board of Directors: Proposed Loan and Technical Assistance Grant to the People's Republic of China for the Henan Sustainable Agriculture and Productivity Improvement Project.* Manila.

Source: Independent Evaluation Department.

141. The poor have largely been included in the Nepal Livestock Project as participants in the supply chain facilitated by providing credit and advisory services to allow them to increase their production. However, employment opportunities for women have also been created through the establishment of village livestock officer positions for the provision of basic husbandry services. In the Lao PDR, other benefits

from rice processing accrue in the form of better employment opportunities by diversifying into agribusinesses and the dependency on rice centers for high-quality seed. Localization of rice seed processing also helps in improving the economic multiplier for paddy rice.

142. In the case study, mainstreaming of gender and development issues by projects was highlighted in the preparation of gender action plans. These plans outlined specific activities and targets to ensure that women benefit from a wide range of services offered by the projects, e.g., training on enterprise development, business management, and marketing; market information and business advisory services; and microfinance. However, implementation concerns pertain to the general inaccessibility of the poor and marginal groups, including women, resulting in more challenging and intensive efforts to broaden the outreach of project services. In terms of value chain interventions, evidence shows that although generic AVC interventions can have positive effects for participating women, more gender-sensitive value chain analysis, intervention designs, and implementation plans are required to secure such impacts and to avoid negative consequences.[37] This is similar to a finding from an IED EKS on gender and development.[38]

[37] L. Riisgaard, A. M. Fibla, and S. Ponte. 2010. *Evaluation Study: Gender and Value Chain Development.* Copenhagen: Evaluation Department, Danish Foreign Ministry.
[38] IED. 2001. *Special Evaluation Study: Gender and Development*. Manila: ADB.

Box 6: Gender Lessons from the Viet Nam Fisheries Infrastructure Improvement Project

An evaluation covering several Asian Development Bank–financed projects looked at the Viet Nam Fisheries Infrastructure Improvement Project. The project's overall objective was to promote modernization and greater efficiency in marine fisheries. It included upgrading 10 fishing ports, establishing environmental monitoring units, and providing loans to selected private sector investors to establish ice plants and cold storage facilities at the ports.

While the project design recognized gender specialization in specific areas of marine fisheries, it nevertheless assumed that parts of the project, such as the loan component and upgrading of port facilities, would benefit women without any special interventions—simply by providing a better working environment and increased income. It anticipated that the project would "uplift the status and living conditions of women in fisherfolk households." This was expected to be achieved by reducing the hardship in fish transporting, increasing the supply of freshwater and ice, and increasing earnings and improvements in living conditions and health.

The evaluation revealed that the project design did not accurately capture women's roles in the fishery sector. This goes back to preparatory socioeconomic study of a local research institute, which included gender-aggregated data, but focused only on capture fisheries neglecting the perspective on onshore fishery activities in marketing and processing, in which women are mostly involved. The evaluation found that although the newly established ports provide a wholesale fish-marketing area, which helps some female fish buyers and ice sellers in general, the benefits of the project accrue to owners of larger boats and to large fish-processing businesses. The latter employ mainly female labor and working conditions in many need improvement.

Further, according to the evaluation, modernization of the ports is likely to reduce labor demand and remove the small economic niches in fish marketing and processing currently occupied by poor women. The loan component does not recognize the serious impediment for women in obtaining loans because women in most cases are unable to offer collateral. Because the project design did not accurately capture women's roles in the fishery sector, it not only failed to impact positively on women, but even had unintended negative impacts.

[a] Asian Development Bank (ADB). 1995. *Report and Recommendation of the President to the Board of Directors: Proposed Loan and Technical Assistance Grant to the Socialist Republic of Viet Nam for the Fisheries Infrastructure Improvement Project.* Manila.

Source: Independent Evaluation Department. 2001. *Special Evaluation Study: Gender and Development*. Manila: ADB.

CHAPTER 6

Conclusions, Lessons, and Issues Going Forward

A. Conclusions and Lessons

143. Ongoing changes in the global context for agriculture and food industries in the DMCs are increasing opportunities for agricultural products including high-value and processed products. Some of the key changes affecting demand include improved rural–urban linkages, changing diets, expansion of private sector engagement, and emergence of supermarkets as major factors in food retailing that affect all aspects of food production.

144. Overall, recent ADB support to commercial agriculture has demonstrated the potential of AVCs, and different elements are already being incorporated into project designs to increase benefits for stakeholders. In view of this study, ADB's support to AVCs and agribusiness should increase. ADB support to commercialize agriculture has yielded benefits to all value chain stakeholders despite the lack of an explicit value chain approach in project design and implementation. The greatest and most observable effects have been on producers, on the supply and production end of the value chain, and on the increased focus in more recent projects on linking to markets. However, barring a few exceptions, very little of the income increases came from value-addition activities or the development of value chains and links to high-value markets.

145. Greater attention during project design to value chain analysis and identification of high-value competitive markets are a prerequisite for developing value chains. This requires an assessment of potential business models and bottlenecks in the chain to identify appropriate project interventions. The successful development of the organic tea value chain in Nepal was due largely to the fact that the Eco-Tea Cooperative had identified a high-value market, and developed the production and processing activities needed to meet market requirements. This upstream approach to developing a value chain provides an exemplar of how market-driven projects can be designed. The experiences of other development partners in their support to AVC provide learning opportunities, e.g., the use of challenge funds and lead firms.

146. **ADB policy and strategy guidance for developing agricultural value chains is limited.** Strategy 2020 provides limited guidance for agricultural development, particularly given ADB's acknowledgement of the need for higher and more secure food production in Asia following the 2008 food price crisis and resulting food inflation. The Operational Plan for Sustainable Food Security in Asia and the Pacific provides some useful guidance in terms of dealing with agriculture under Strategy 2020. However, additional specific guidance would be useful on AVC development related to establishing private sector linkages, supporting food security, promoting inclusiveness, dealing with climate change, and linking to other sectors. For example, this will require wider sector interactions related to agriculture and rural finance to improve access to

credit and other needed financial services for AVCs. This cross-sector response will be required both within countries, working between ministries, but also within ADB, requiring staff to work across departments in multisector teams, including PSOD.

147. **ADB-supported commercial projects have contributed in varying degrees to the nine key design features that the evaluation knowledge study identifies as essential for successful development of value chains.** ADB support is relevant for promoting value chain approaches. ADB assistance to commercial agriculture projects was mostly successful in increasing farmer incomes through greater market opportunities for their produce. Provision of access to better inputs, improved technology, and higher-yielding varieties has in most cases led to an increase in production and net profits for smallholder farmers. In some cases, the formation of organized cooperatives and contract farming helped farmers improve market access for their produce.

148. **Progress has been made in support of establishing enabling policies, regulations, and institutions, but the often fragmented support limits the development of value chains and agribusiness.** An enabling environment through policies, regulations, and supporting institutions is a necessary prerequisite for value chain development. The DMCs' national policies were found to generally support some aspects of the value chain approach for domestic and international markets. ADB contributed to policy support for the productive sector by increasing private sector investment and reducing the cost of inputs and strategies to establish special economic zones. The agriculture sector, however, has been slow to exploit these initiatives largely because key regulatory frameworks and implementation strategies are missing. Although the government and ADB country partnership strategies of case study countries support a value chain approach, little evidence is available on an integrated policy approach to provide an overarching enabling environment. Fragmented policies that do not address key constraints can create bottlenecks in other areas and lead to reduced private sector engagement and value chain development. Conducting an integrated and comprehensive review during design, directed at identifying key constraints for building value chains, can help commercial agriculture projects to better address value chain constraints and leverage ADB support for policy, regulatory, and institutional reform.

149. **Private sector participation in the agriculture sector and in public–private partnerships will not increase without support to clarify public sector roles and identify private sector opportunities**. A key constraint to increasing private sector participation was the lack of clarity over the role of government and the private sector. The DMCs claim ownership of developing PPPs, but lack direction on goals, objectives, and methods for implementing proposed strategies. Encouraging private sector participation requires clarity of the roles of government and the private sector. Building synergies through PPP requires identification of opportunities and development of commercial models for effective participation of both sectors.

150. **Credit must be available to all stakeholders for a variety of entrepreneurial activities to support more balanced development of value chains.** Credit models developed to support producers used various approaches for credit delivery. Recovery rates in the case study countries during implementation are relatively high. The few projects designed to provide credit to a wider range of stakeholders found delivery to be difficult. A major constraint in supply and value chains is the lack of established business models for the delivery of credit to support, or diversify into, value-adding activities. A key issue to be addressed in developing these models is the perception of risk associated with the transient activities of entrepreneurs, such as traders and

retailers. One method of dealing with risk is to link lending to end markets, which proved to be a successful model in some of the contract farming examples.

151. **Projects provided limited support to innovations important for value chains.** Value chains require ongoing technology inputs and innovations to become and remain competitive. However, innovation is often confused with technology in project design and implementation. Innovations are important for AVCs to become and remain competitive, and they require a culture that promotes and incubates ideas. This critical component was excluded in projects by an overemphasis on process-driven approaches at the expense of promoting innovations. Investing in agricultural research can be a vehicle to contribute to improving project objectives and eventually outcomes.

152. **Technology inputs for commercial agriculture projects are useful and provide benefits to farmers, but have been based almost entirely on increasing production.** Technology is delivered as packages to address specific constraints to yields and increasingly for more sustainable agricultural practices. Without funding support for technology development, most projects are unable to direct initiatives to provide solutions to project-specific problems. In most cases, technology was delivered to improve supply chains rather than support demand-driven chains and lead to the development of competitive advantages in domestic and export markets.

153. **Infrastructure support for commercial agriculture has been useful but not always aligned with agricultural value chain development.** In all projects reviewed, investment in rural roads was based on the premise that improving the physical connection to markets would result in a flow of benefits through increased agricultural productivity. In most cases, the constructed road did not necessarily connect agricultural areas that have a competitive advantage with strategic markets. A further shortcoming is that no corresponding input was provided to develop transport logistics, particularly those designed around the timely delivery of perishable products. The construction and use of markets is often not fully utilized due to lack of recognition of local spot market nuances that contribute to poor location and elite capture. Storage facilities were not prioritized and their use was poorly integrated into project implementation. Supporting infrastructure needs to be specific to the needs of the value chain. Roads focused on linking areas with a competitive advantage to markets can drive the formation of competitive value chains. The placement of markets and storage facilities is critical for value chain development but does not always need to be consistent with the priorities for connecting poor and marginalized groups. Such placement also does not necessarily drive the formation of competitive value chains.

154. **Support for improving market access has primarily focused on a production-driven rather than a market-driven approach.** Projects often state a market-driven approach; however, implementation is constrained by designs that are not based on market drivers. Commercial agriculture projects do not appear to have leveraged known market drivers such as regional trade agreements, which would guide and provide incentives for export value chains. Improving market access through capacity building and training inputs has been effective in building basic business skills. However, building basic skills is necessary but not sufficient to support value chains, as it does not focus on the specific needs of identified markets. While quality control is an effective method of developing product differentiation and a competitive advantage, it relies on a coordinated effort to transform a low-value product to a high-value fresh product or to one with specific raw material attributes for processing.

155. **Contract farming emerged in the case study countries as a vehicle for improving market access, although it is often constrained by the lack of a**

supporting legal and regulatory framework to guide stakeholders as was found in Lao PDR. In general it has contributed by linking producers to agroprocessors. For example, contract farming for processing has been successful in the PRC. While it does not directly contribute to the value chain approach, it does in some cases provide a market for second-grade produce and allow the development of value chains for better quality produce.

156. **Information systems were generally not responsive to rapid changes in market prices and did not improve the negotiating power of producers or other stakeholders in the value chain.** Information systems were primarily aimed at delivering price information to producers rather than other stakeholders in either supply or value chains. Providing market information was not useful unless it was delivered in a timely manner. Although project design has included a number of innovative delivery methods for information, this information largely became redundant before it reached the producers, as spot markets are dynamic. Few initiatives provided market information on high-end domestic or export markets. Market information systems are very much project-driven initiatives that commonly end with the project.

157. **In all case study countries, projects facilitated market linkages through the formation of organizations for developing networks and improving connections between markets and other stakeholders.** The formation of producer organizations has been primarily used to link input suppliers with producers and producers with processors, and to assist in delivering services and empowering communities. A few examples were found of activities to help form postproduction groups involve bulking, grading, and marketing.

158. **Producers have been the primary beneficiaries of ADB-financed projects supporting agricultural commercialization.** In all case studies, support to traders and other market intermediaries was limited with no documented support to retailers. The focus on production with less emphasis on the role of traders, processors, and retailers restricts opportunities for value-adding activities. The development of project design and implementation for AVCs needs to move beyond only supporting producers, and provide greater support to other participants in the value chain, such as processors, traders, and retailers (e.g., for credit).

159. **The inclusion of marginal groups in value chain development has largely been based on support for production.** The project designs have mostly been responsive to the needs of the poor and marginal groups through participatory engagement in the preparation phase. The design phase often does not include detailed value chain and poverty assessments to determine specific opportunities and needs for linking marginal groups such as smallholder farmers to value chains. Barriers to the inclusion of marginalized groups in value chains include lack of production and management skills, and lack of experience in dealing with sophisticated markets. Providing marginal groups with access to inputs, information, and technology can potentially improve their participation. However, capacity-building activities are often general in nature and not specifically geared to meeting value chain requirements. The Nepal Commercial Agriculture Alliance Project is a positive example of overcoming these challenges. It introduced a staged approach for inclusion, which seeks to gradually increase the skills and capacity of producers so that they can participate in commercial supply chains with the possibility that value chains will evolve.

160. **The agricultural value chain approach can provide opportunities for the poor.** However, because the main objective of the AVC approach is to generate profit

by meeting market needs, the means for achieving this may be in conflict with inclusion of the poor. They lack the skills and expertise to produce for high-value markets. The emphasis on improving the participation of small producers in value chains by providing access to inputs, information, and technology may not be aligned with the foundation of the value chain approach, which uses a market analysis to define the appropriate production base. As such, the development of certain value chains may provide more opportunities to be pro-poor than others—ADB should focus on those that are more pro-poor.

161. To achieve value addition and to make value chain support inclusive, the value chain approach needs to be well defined in project documents for effective implementation by ADB's agriculture projects. The use of the value chain approach to improve the economic well-being of poor and marginalized groups requires additional analysis, and specific and well-sequenced support to address the transitional and transformational problems of entry that prevent smallholder farmers from moving from subsistence to commercial agriculture.

162. **Projects could benefit from a common understanding of supply-chain vis-à-vis value chain approaches and distinctions made between them in project designs.** Project designs often lack clarity around commercial agriculture definitions. This results in confused outcomes, particularly where they relate to value chains and the benefits that can accrue from a value chain approach. Agriculture projects that are focused on supply chains, production, and general economic development need to be distinguished from those focused on value chains—the project designs, policy interventions, and partnerships (e.g., private sector) needed to support them may not be the same. AVC projects need to be more closely linked to the market drivers of commercial agriculture to ensure their successful implementation

163. **Business models would provide guidance for agricultural value chain development.** The field studies found that the case study projects did not have business models for activities to guide investment and implementation. Within the value chain context, business models provide a tool for identifying the role that each stakeholder will play and, importantly, assist in defining how profit will be generated and increased by the application of inputs and value-adding activities. The use of business models facilitates the quantification of project inputs and investment, as well as monitoring and evaluation. Value chains are dynamic processes. Since they need to adapt to rapidly changing markets, business strategies should be flexible and future looking. Basic information should include a description of the objectives of the business, and how the product will be produced and marketed. Information should include cash flow, how profit will be generated, and the inputs required. For value chains, strategies for achieving and maintaining a competitive advantage should be included.

B. Going Forward in Support of Agricultural Value Chain Development

164. **Countries need to adopt a comprehensive approach to policy, regulatory, and institutional reform to identify key constraints for AVC development.** A cross-sector policy review of agriculture, trade, infrastructure, and fiscal control needs to be undertaken to determine the amount of support provided to value chains through the existing policy, regulatory, and institutional framework. Public–private sector forums can be formed and can be used to identify areas for policy reform. Policy reforms need to be linked with appropriate and implementable regulatory institutional frameworks.

165. **Projects need to base design parameters for value chain projects on the market drivers of commercial agriculture.** Value chain analysis needs to be undertaken in advance to identify key constraints and requirements to be addressed during project implementation. This can assist in identifying complementary project activities that contribute to an overall outcome. Models for production and postproduction project inputs need to be based on meeting market requirements. Greater attention needs to be given to the market needs of the value chain in terms of the nine key criteria outlined in this EKS (e.g., market needs determine value chain information systems and the form and function of value chain organizations). Value chain governance and its contribution to poverty reduction need to be emphasized. Innovative thinking needs to be supported, taking into account the specific country context and practices, such as existing power structures and the governance of existing value chains. This requires research using participatory approaches with stakeholders to assess local innovations for testing and upscaling.

166. **Countries and projects need to identify infrastructure requirements for agricultural value chain development.** The positioning of rural roads, markets, and storage facilities for commercial agriculture, in general, and for value chains, in particular, needs to be based on an analysis of strategic links between production areas and markets. The development of transport hubs, where agricultural goods can be exchanged between vehicles and modes of transportation, is an integral part of the development of rural roads and markets, and needs to be ensured. The construction of markets needs to be based on value chain requirements (e.g., refrigeration), and the markets need to be positioned strategically for high-value crops to encourage links with high-value markets.

167. **Countries and projects need to develop models for including the poor and marginalized groups in value chains.** A staged approach is needed to improve the skills base required to meet the needs of simple supply chains with the introduction of changes over time to allow for the development of value chains. In doing so, an explicit focus on gender equity needs to be included. Models can be modified based on country context and needs.

168. **ADB needs to prepare a guidance note for the design and implementation of agricultural value chain projects.** This is to be used as a resource for designing and implementing commercial agriculture and value chain projects. In terms of implementation, it needs to recognize the value of working across sectors, country ministries, and institutional departments. In addition to addressing value chain approaches, the note can include suggestions for incorporating cross-cutting issues related to inclusiveness and the environment.

169. **Related to the guidance note, ADB can develop business models for private sector investment and expanded support to agricultural value chains.** Public–private sector forums can be established to identify constraints and synergies to provide cost-effective services. Clear guidelines can be developed on roles and responsibilities for government and the private sector in specific value chains. Models can be developed for public enterprises to commercialize services for value chain development. Formal linkages can be developed among the private sector, institutions, and government departments relevant to specific value chains. Alternative models can be considered that can offer inclusive growth, increase the bargaining capacity of farmers, reward innovation, and allow captured efficiencies to deliver benefits to producers.

Appendixes

APPENDIX 1. THE VALUE CHAIN APPROACH

1. Value chains are organized linkages between groups of producers, traders, processors, and service providers (including nongovernment organizations [NGOs]) that join together to improve productivity and the value added of their activities. By joining together, the participants in a value chain increase competitiveness and are better able to maintain competitiveness through innovation. The limitations of each single participant in the chain are overcome by establishing synergies and governance rules aimed at producing higher value.

2. The main advantages to commercial stakeholders from being part of an effective value chain include being able to reduce the costs of doing business; increase revenues; increase bargaining power; improve access to technology, information, and capital; and, by doing so, innovate production and marketing processes to gain higher value and provide higher quality to customers.

3. A value chain approach focuses on the interaction of stakeholders along each step of the supply chain. Such an approach, thus, considers trade relations as part of a series of networks of producers, exporters, importers, processors, retailers, and service providers, whereby knowledge and relationships are developed to gain access to markets and suppliers. The success of stakeholders in adding value to their production lies in their ability to access these networks.

4. Concepts central to the understanding of value chains include the concepts of linkages, coordination, governance, consumer demand, competitiveness, innovation, and distribution. Box A1.1 summarizes the key concepts.

Box A1.1: Key Concepts in Value Chain Analysis

(i) The value chain organizes business linkages by getting stakeholders to work together.
(ii) Effective coordination of decisions and exchange is required for different participants in a value chain to work together.
(iii) The rules regulating coordination within a value chain constitute the governance of the chain.
(iv) To increase value, the value chain needs to meet consumer demand.
(v) Meeting consumer demand is not enough; the participants in the value chain need to meet consumer demand better than those outside of the value chain—the value chain participants have to be competitive.
(vi) To maintain competitiveness, the value chain needs to innovate continuously; otherwise initial gains in competitiveness will be eroded over time.
(vii) To establish effective linkages, the chain needs to distribute benefits that provide incentives to the participants. If only one party in the value chain appropriates all the benefits, the chain will not be sustainable in a market system.

Source: F. Goletti. 2004. *Commercialization, Value Chains, and Poverty Reduction, Markets for the Poor, Phase 1*. Agrifood Consulting International.

5. Understanding governance implies understanding who controls the power relationships within the chain.[1] Governance issues are of increasing importance in the agrifood system, given the greater emphasis on product differentiation, food safety, and product standards required in a competitive market environment. Such issues place a premium on strong linkages within the value chain between agents in the chain. While individual and isolated smallholder farmers may be unable to capture value added vis-à-vis traders or processors, associations of producers may be in a better position to access technology, credit, and market opportunities.

[1] R. Kaplinsky and M. Morris. 2001. *A Handbook for Value Chain Research*. Ottawa: International Development Research Centre.

6. In a linear model, relations from farmers to consumers are considered in a sequential manner (input providers supplying to farmers selling to traders distributing to processors and consumers). In a network, all stakeholders can establish relations with each other in order to gain from the value chain. That implies a multiplicity of partnerships that can be formed between not only different groups and organizations belonging to the private sector, but also between public and private organizations.

7. To meet the challenges of the global economy, a successful value chain must continuously innovate in the form of products, technologies, management, marketing, distribution, and so on. The chain must be efficiently organized using a variety of organizational structures that allow the achievement of economies of scale. The chain often establishes coordination between its participants by moving beyond spot market transactions and utilizing contracts, vertical integration, supply networks, alliances, and other forms of coordination. Increasingly, the world over, effective value chains introduce practices that meet environmental and social responsibility concerns.

8. Spot markets can be the most efficient way to organize production and exchange when coordination and product differentiation are low (as in the case of bulk commodities). In the case of perishable products and processed products however, differentiation in terms of quality, safety, and convenience is quite high and often requires greater coordination than is provided by spot markets. In these cases, spot markets might not be the most appropriate way to organize production and exchange. Value chains, or even hierarchies (e.g., vertical integration of an industry), might be the most efficient way of organizing the industry.

9. As products become more differentiated, so too does the coordination requirement for the chain to ensure that products of desired quality are available to the consumer at the right time and place. Markets, hierarchies, and intermediate forms of coordination, including joint ventures, alliances, network, and clusters, are the domain of value chains.

10. A value chain is not the same as a supply chain. A value chain is about linkages generating value for the consumer. A supply chain is about processes of moving and transforming commodities into products from producers to consumers. While a value chain is about generating value for the consumer, a supply chain is about logistics.

11. An example of how to generate higher value added is illustrated by the transformation of a relatively undifferentiated commodity such as paddy into highly differentiated products. The first transformation of paddy into rice is relatively well known. Rice itself could be highly differentiated according to different features related to such things as variety (e.g., basmati, jasmine, arborio); size (long, medium, short grains); broken percentage; and fragrance. Different products could also be made from rice including starch, snacks, crackers, and spirits. By-products of the milling process can be used to produce bran and fuel.

12. The value chain approach contains several features consistent with a new view of agricultural development. The approach is consistent with global trends in the agrifood system and with a strategy intended to accelerate the transformation of the rural economy into a more dynamic system able to absorb productive employment and generate higher wages. A value chain intends to create or strengthen existing linkages between different stakeholders and, therefore, goes beyond a narrow view of agricultural development as only based on production. Value chain linkages imply that producers are linked to consumers through various mechanisms involving enterprises. These linkages aim at increasing value for consumers and, therefore, utilize opportunities existing in rural economies and arising in production, services, and industry. Sustainable poverty reduction will occur if emerging businesses in rural areas and rural–urban growth centers increase demand for nonfarm employment and induce growth of rural wages.

13. The value chain approach is broad, focusing on producers and smallholder rural households, as well as on business enterprises, service providers, and consumers. At the same time, the approach is not too broad to include everything that a government or development agency could or should do to promote commercial agriculture. It seems to strike the right balance between comprehensiveness and focus. A summary of the main features of the approach is provided in Box A1.2.

Box A1.2: Features of an Effective Value Chain

An effective value chain has the following features:

(i) differentiates products;
(ii) continuously innovates, i.e., products, technologies, management, marketing, and distribution;
(iii) creates higher value;
(iv) uses a variety of organizational mechanisms to achieve efficiency;
(v) forms alliances and achieves coordination;
(vi) goes beyond spot market transactions and includes contracts, vertical integration, networks, and supply chains; and
(vii) introduces practices to meet environmental and social responsibility concerns.

Source: Independent Evaluation Department.

A. Coordination and Linkages

14. Value chain analysis stresses the general failure in coordinating the decisions of private stakeholders (e.g., farmers, traders, and agroprocessors in the case of the agrifood system), and service providers from the public, private, and NGO sectors. Coordination failures arise within the public, private, and NGO sectors. Within the private and NGO sectors, each stakeholder perceives agribusiness development in relative isolation. As a result, stakeholders do not make a concerted effort to overcome constraints that are affecting different participants in the value chain. Linkages between commercial stakeholders (e.g., farmers, traders, and processors) exist, but are characterized by lack of trust and weakness, and do not result in effective actions to increase value added, improve competitiveness, and maintain competitiveness through continuous innovation. Within the public sector, coordination among government agencies is weak; its improvement requires leadership, commitment, and vision.

15. Individual interventions to improve technology, infrastructure, and access to credit and markets can only be partial solutions that could at best maintain sector growth, rather than accelerate it substantially, and make a real and appreciable contribution to national goals. For growth to accelerate substantially, a new way of thinking about and carrying out agribusiness is needed. This new way implies overcoming coordination failures. It will not happen automatically but will require appropriate institutional mechanisms that are not currently in place. From a business perspective, the general coordination failure between commercial stakeholders and service providers translates into ineffective value chains.

B. Lack of Effective Value Chain Linkages

16. **Supply-chain bottlenecks.** The lack of effective linkages between stakeholders in a value chain has several consequences—the most obvious is the predominance of supply-chain bottlenecks. Bottlenecks result in produce from farmers not flowing to the market in the amount and quality necessary to ensure high and stable returns. As a result, farmers experience gluts of commodities, processors are not able to procure sufficient raw materials for their plants, retailers do not get sufficient products to meet consumer demand, and exporters are unable to meet foreign customer requirements. The overall volume of domestic and international trade is reduced; in turn this implies

that rural households and enterprises will not be able to reap the benefit from higher rural income and employment. In turn, a weak rural economy reduces the scope for further investment in rural areas and entails low aggregate growth.

17. **Lack of innovation.** In the absence of effective linkages between stakeholders, the scope for innovation is limited. As an example, lack of improvements in packaging technologies is not necessarily the result of the lack of knowledge and availability of technologies, or of the fact that technologies are expensive. From the perspective of a fruit-processing factory, having the raw materials delivered in plastic crates rather than bamboo baskets might make sense. However, the introduction of plastic crates involves the factory and its suppliers, and also affects the overall supply chain, requiring changes in logistic and supervisory systems that are acceptable to transporters, suppliers, farmers, and factory workers. Another example is the adoption by farmers of improved seed and crop husbandry. The resulting increase in production will not necessarily result in higher income for smallholders, unless established market linkages ensure that the increase in production is actually marketed and does not result in a glut in the market. Low innovation implies low productivity, which in turn leads to low comparative advantage and missed market opportunities.

18. **Isolated cases of success.** Without effective linkages between stakeholders, successful cases of entrepreneurship remain isolated and do not translate into wider growth of agribusiness. To achieve wider growth effects, entrepreneurs need to be linked; form associations; and establish mechanisms to exchange information, including the formation of economic clusters—locations where many similar enterprises group to achieve economies of scope and scale. The weakness of linkages is particularly acute in the case of women. Successful cases of female entrepreneurship remain isolated partly because of the lack of mechanisms to disseminate their experiences and learn from each other's success. The overall effect is low innovation and slow agribusiness development.

19. **Low capacity of organizations.** The capacity of individuals to solve business problems does not translate into the capacity of organizations. Product development requires the concerted effort of several people within the organization and among organizations. In the absence of this concerted effort, market opportunities cannot be exploited. The frustration in solving problems as individuals generates a perception of helplessness and induces a dependency attitude, whereby investment and technical assistance provided by the government or development partners are expected to solve the problems. This in turn translates into a lack of sustainable enterprise development.

20. **Low private investment in rural areas.** Isolated attempts at investment are not likely to raise the necessary capital to undertake modern agribusiness activities. For farms, the low income of most rural households often does not allow for individuals or small groups of poor smallholders to mobilize sufficient capital or access credit to adopt new technologies, build basic marketing infrastructure, and obtain working capital for a variety of business activities. A similar situation occurs for other value chain stakeholders, albeit at a different scale. If organized into larger groups or alliances, the same stakeholders could make larger investments and avoid dependence on scarce and unreliable sources of finance for their investment. Low investment in the sector results in lower growth.

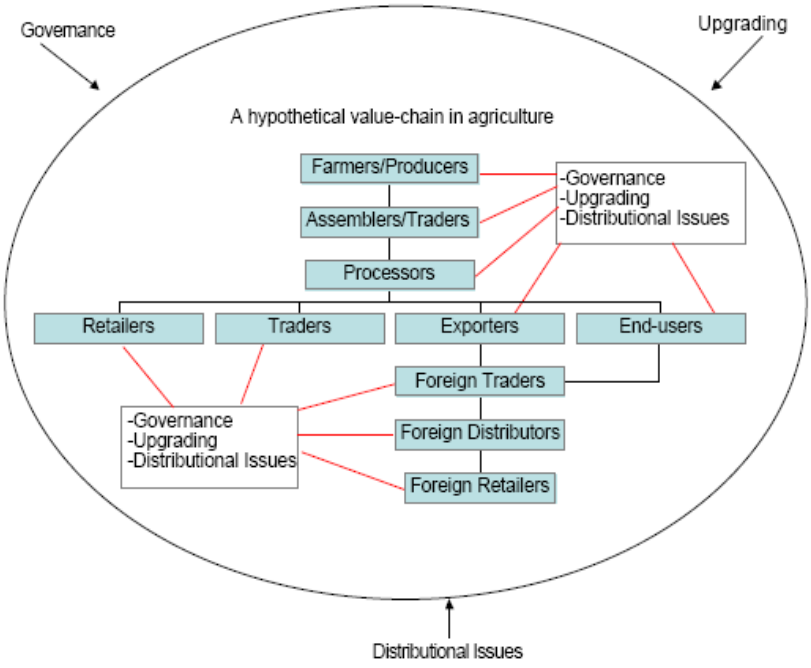
C. Pro-Poor Value Chain

21. The aim of pro-poor value chains is to improve the value of products of the poor through quality enhancement, more stable commercial relationships, and a higher portion of the final value of the product. An effective pro-poor value chain ensures that higher value is produced and a larger portion of the value of the final product goes to the poor. Increased private investment and development, and growth of competitive enterprises could provide the poor with a market for their products, productive employment, and a broader range of business opportunities for poor households to diversify their income.

22. The key steps in value chain analysis involve (i) mapping the stakeholders in the value chain, (ii) identifying the distribution of benefits among the chain stakeholders, (iii) examining the role of upgrading within the chain, and (iv) understanding the role of governance in the chain.

23. At the heart of the value chain analysis is the mapping of sectors and key linkages. The value-added of the value chain approach comes from assessing these intra- and inter-stakeholder linkages through the lens of issues of governance, upgrading, and distributional considerations. By systematically understanding these linkages within a network, one can better prescribe policy recommendations and, moreover, further understand their reverberations throughout the chain (see figure below).

Methodology for Value Chain Analysis



Source: Source: K. M. Rich. 2004. A Discussion Note on Value chain Analysis in Agriculture: Methodology, Application, and Opportunities. Discussion Paper for the Asian Development Bank Making Markets Work Better for the Poor Project. Ha Noi: Agrifood Consulting International.

24. The tools used in the analysis are oriented to analyzing the value chain from the perspective of the poor. The ultimate objective of improving value chains for the poor has two dimensions. The first is to increase the total amount and value of products that the poor sell in the value chain. This results in higher absolute incomes for the poor as well as for the other stakeholders in the value chain. The second dimension is to sustain the share of the poor in the sector or increase the margins per product, so that the poor not only gain more absolute income but also relative income compared with the other stakeholders in the value chain. In this case the share held by the poor grows and the poor get less poor compared with other stakeholders in the chain.

APPENDIX 2. THE EVALUATION DESIGN MATRIX

Key Evaluation Questions	Guide Questions	Required Information	Information Source, Collection Method, and Analysis
To what extent are commercial agriculture and agribusiness projects focused on value chain development?	Does ADB's institutional framework for supporting commercial agriculture meet the needs of DMCs? Were the supports provided appropriate to address bottlenecks in agribusiness and value chain development? Was appropriate support provided for policy and institutional reforms to enable/promote agribusiness and value chain development? Were the key stakeholders along the value chain identified in the project design and provisions made to include them in the support provided? If key stakeholders were not appropriately identified during design stage, were efforts made to include them during implementation? Did ADB support to value chain strengthening (or commercial agriculture development) help the sector grow and promote more investments, particularly from the private sector? How can projects bring in more innovations in sector development, particularly in such areas as financing modality and instruments? Did the distribution of benefits along the value chain provide adequate incentives to all participants? Would improvements in the value chain have happened without the intervention of ADB?	ADB and DMC plans and strategies for commercial agriculture Identification of bottlenecks and enabling factors and nature of support provided in fostering agribusiness and value chain development Identification of key stakeholders and nature of support provided for promoting agribusiness and/or value chain development Appropriateness of types of commodities supported to foster agroenterprises and agribusiness Support provided in various stages of product development cycles (i.e., production, postproduction, processing, marketing) Evidence of private sector development as a result of ADB support in the public sector Nature of the innovations supported in production, postproduction, management, financing	Review of ADB and DMC strategies and national plans including ADB country partner strategies Project-related documents including midterm review reports, BTORs, PPRs Review of self- and independent evaluation studies, such as PCRs, PPERs, PVRs, CAPEs, SAPEs, SESs Literature review on commercial agriculture including agribusiness and value chain development in international journals, policies of authoritative international agencies on the topic Document review of the national DMC agencies on mandates, policies, and strategies, and current thoughts on the topic Combination of key informant interviews and focus group discussions to obtain their perceptions on support provided for commercial agriculture

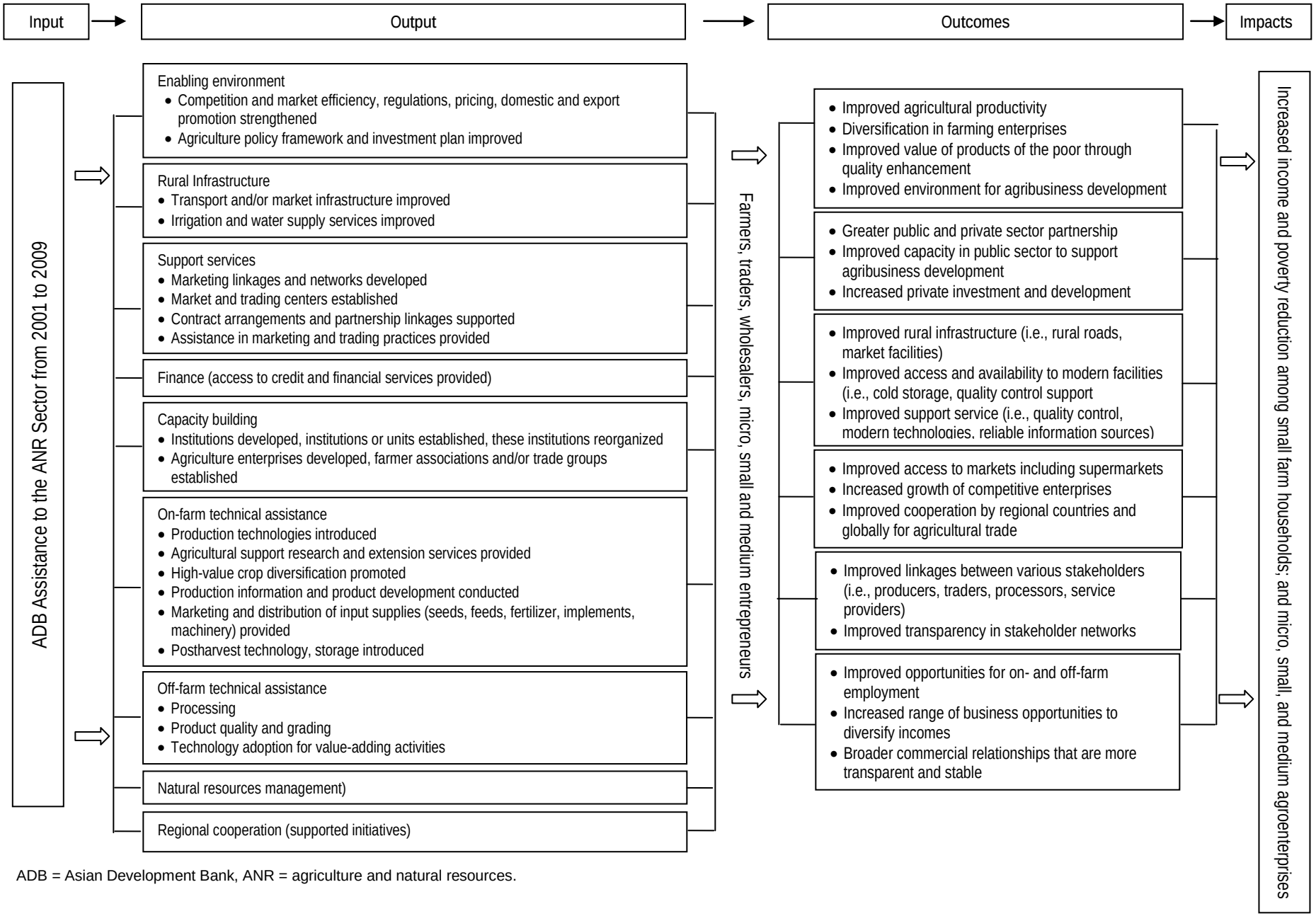
Key Evaluation Questions	Guide Questions	Required Information	Information Source, Collection Method, and Analysis
How effective have ADB operations been in linking smallholder producers and/or microenterprises to markets in general?	What forms of networks and coordination were supported to achieve the necessary economies of scale to link small producers to markets? What forms of coordination were formed with retail and supermarkets for smallholder producer and microenterprise development? What strategies (i.e., contract farming, village product branding) were used to expand transactions with all forms of markets including supermarkets and retail markets? What forms of vertical and horizontal networks and coordination were developed to facilitate access to supermarkets and retail outlets? Were essential innovations supported for product development, management, marketing, and distribution to stay competitive? Were domestic producers and agroenterprises sufficiently supported for the development of needed products for supermarket and retail sales? How suitable was the technical support provided for quality assurance, processing, marketing, and product differentiation necessary to match urban demand?	Adequacy of assessment to identify demand and supply factors for product development and marketing Vertical and horizontal networks and coordination developed for linking producers and microenterprises to marketing opportunities (i.e., all forms of markets including supermarkets) Differentiation of product requirement by income, geography, and other factors Quality and safety aspects of the produce and marketing for local, urban, and export markets Appropriateness of types of support provided for production, collection and/or transporting, warehousing, postharvest processing, industrial processing, merchandizing, grading, packaging, and marketing and/or sales Support for marketing and distribution networks for local, urban, and export (e.g., two markets may be significantly different) Adequacy of identification of production and/or postproduction constraints and opportunity stages with high value addition Constraints to full participation in the market by the poor and women	Project document reviews, including midterm review reports, BTORs, PPRs Review of self- and independent evaluation studies such as PCRs, PPERs, PVRs, CAPE, SAPEs, SESs Document review of the national DMC agencies on mandates, policies, and strategies, and current thoughts on the topic Combination of key informant interviews and focus group discussions to obtain their perceptions of support provided for commercial agriculture Exploratory field visits for validations and to engage with key stakeholders including intended beneficiaries
What was the anticipated and actual benefit of value chain development, particularly for the	Were the projects designed to ensure sufficient participation by the poor, women, and marginal groups for sustained benefits from agribusiness and/or value chain development? During implementation were these design	Targets and indicators in the DMF on the extent of benefits to these groups Access to and appropriateness of support services (i.e., technical, credit, extension, marketing networks) provided in ADB	Review of ADB and DMC strategies and national plans including GAD-related policies, safeguard protection policies Project-related documents including

Key Evaluation Questions	Guide Questions	Required Information	Information Source, Collection Method, and Analysis
poor, women, and marginal groups in such projects?	features monitored and evaluated, and corrective actions taken as required? Were efforts made to ensure that benefits to smallholders are sustained? What steps are taken to ensure that women have access to traditionally male-dominated roles of traders, agroenterprise managers, and exporters? Are the poor and marginal groups sufficiently included at the stage with the most value addition (i.e., usually the end stage)?	projects Mechanism and support systems to ensure these groups are included where there is the most value-added benefit Mechanism and support systems established to ensure that benefits for these groups are sustained after the project	midterm review reports, BTORs, PPRs Document review of policies and strategies of DMCs, international financial institutes, and other development partners Combination of key informant interview and focus group discussions to obtain perceptions on support provided for commercial agriculture Household survey to quantify the extent of benefits from value chain development for the poor, women, and marginal groups
How relevant and effective as the role of public vis-à-vis private sector participation been in the process?	How did ADB projects define the boundary of public and private sector roles, and did such division of labor help promote more private sector entry in the value chain, and better and more focused public sector services in the sector? Has the support provided to the public sector stimulated greater participation of the private sector to agribusiness development? Has the private sector been able to leverage the support provided by the public sector (i.e., facilities and support, policies and institutional reforms)? Are projects geared to promoting more active entry of the private sector into the agribusiness /value chain? What forms of innovations (i.e., in products, technology, management, marketing, distribution) have been introduced to promote	Differentiation of the public and private sector roles and responsibilities in ADB projects The nature of support provided to public and private sector development to promote agribusiness development Factors for private sector growth and ADB's role in supporting them Evidence of private sector growth as a result of ADB support to public sector development Innovations promoted in ADB projects for product development, management, distributions, marketing Capacity of executing and implementing agencies to effectively develop needed coordination and networks with the private sector for agribusiness and value	Review of ADB and DMC strategies and national plans including ADB country partner strategies Project-related documents including midterm review reports, BTORs, PPRs Review of roles and responsibilities in private sector development of the Ministry of Agriculture and related ministries for agribusiness development Relevant literature on business review journals Combination of key informant interview and focus group discussions with officials from various officials, NGOs, and the private sector to obtain their feedback on the nature of ADB support for public and private sector

Key Evaluation Questions	Guide Questions	Required Information	Information Source, Collection Method, and Analysis
	private sector participation? Have potential investors for agribusiness development been consulted in a coordinated manner to address bottlenecks and promote enabling factors?	chain development Nature and adequacy of consultations with the private sector during project design and implementation	development Networks and committees representing agribusiness development

ADB = Asian Development Bank, BTOR = back-to-office report, CAPE = country assistance program evaluation, DMC = developing member country, DMF = design and monitoring framework, GAD = gender and development, NGO = nongovernment organization, PCR = project completion report, PPER = project performance evaluation report, PPR = project performance report, PVR = project validation report, SAPE = sector assistance program evaluation, SES = special evaluation study.
Source: Independent Evaluation Department

APPENDIX 3. LOGIC MODEL ILLUSTRATING THE IMPACT OF AGRICULTURE AND NATURAL RESOURCES



ADB = Asian Development Bank, ANR = agriculture and natural resources.

APPENDIX 4. KEY ELEMENTS OF A VALUE CHAIN

1. Design features required for the successful development of value chains incorporate the design themes of commercial agriculture projects, but involve a change of focus. They include the following features.

2. **An enabling policy, regulatory, and institutional framework.** The creation of an enabling environment is pivotal to the development of competitive value chains. Key policy areas identified that assist in creating an enabling environment for the development of value chains are those that relate to the market environment, input supplies, infrastructure, technology development, credit, public–private partnerships (PPPs), food safety standards, and support for agroprocessing. In addition, policies should ensure that value chain practices meet environmental and social responsibility concerns. The presence of strong regulatory and institutional frameworks is a necessary adjunct to policy implementation.

3. **Credit.** The provision of credit to the agriculture sector is regarded as a necessary mechanism to increase capitalization and output. Supply-chain credit in commercial agriculture projects is usually focused on inputs for farmers; more recently, structured finance has become available for processors. The rational for these models is that credit is used for activities that will increase production output with equity provided through group equity. While this is applicable for value chains where production activities are also important, an additional requirement is to provide credit for producers to add value as well. Value chains also require the use of credit for other stakeholders such as traders, storage operators, wholesalers, small-scale processors, and retailers. Credit for these stakeholders would be used to purchase processing or packaging equipment, develop storage facilities, or differentiate products.

4. **Infrastructure.** Generally increasing the effectiveness of on-farm investments means that farmer access to regional centers for commerce needs to be increased through investments in rural infrastructure. The primary focus of rural infrastructure investment in the agriculture sector is on roads, market structures, and to a lesser extent storage facilities. In the value chain context, the benefits of upgrading roads are derived from reduced impact damage and loss of quality from shorter transit times. Other supporting infrastructure, such as storage facilities and transport logistics, would also increase selling options and contribute to benefits that accrue from rural roads.

5. **Innovation and technology.** Ongoing innovations that increase productivity and reduce costs while improving quality standards are an essential part of developing competitive value chains. For this discussion, a distinction is made between innovation and technology. Innovation is an ongoing process that may involve any of the stakeholders at any point of the value chain; and involve continuous improvement in production, product quality, and marketing processes. Technology, on the other hand, is either imported as a turnkey[1] package or is the output of research and development institutes. It is focused on increasing supply-chain volume and quality. Thus the development of a competitive value chain involves a change in focus from technology that drives the supply-side to demand-driven postproduction innovations that cover a range of value-adding activities including quality, processing, packaging, transport, storage, information transfer, and branding.

6. **Markets.** The development of value chains is dependent on the existence of value-responsive markets. Invariably these markets are located in urban areas and, in some developing member countries (DMCs), are still underdeveloped. Most high-value markets take the form of supermarkets, which although becoming significantly more important for the sale of dry goods and luxury items, still do not play a large role in marketing fresh produce. For value chains to develop in a sustainable manner required inputs include

[1] The term turnkey is applied to technology that is bought in a ready-to-use form.

(i) input services, such as business training for value chain participants;
(ii) the opportunity to develop downstream and upstream linkages through contractual agreements;
(iii) market response to product differentiation activities, such as grading and packaging;
(iv) market response to increased competition; and
(v) the existence of alternative markets in case the primary market fails.

7. The development of contract farming is increasing, particularly where it involves supply chains for processing. Opportunity for direct benefits in these circumstances is limited through the value chain approach, but in some instances it provides farmers with financial security through the sale of second-grade produce and provides opportunity to further develop high-value markets for first-grade produce.

8. **Information.** The flow of information between all stakeholders is an essential element of value chain development. The concept is that by making market price information available, the bargaining capacity of participants will be improved, and thus contribute to their profit margins. This may well be the case for supply chains, however for the development of competitive value chains a wider range of information is required that relates to inventories of potential agribusiness opportunities; identification of markets and technology linkages for new and existing products; value-adding activities; producer, wholesale, and retail prices; supply and demand in domestic and international markets; and technological innovation activities.

9. **Organizations.** The development of organizations that will provide the critical mass to reduce transaction costs and provide structure for governance is pivotal to the development of value chains. The Agriculture for Development report [2] makes the case for organizations of key stakeholders in agricultural development in general and value chains in particular. Organizations, in the context of this discussion, refer to formal or informal groups, associations, and cooperatives of value chain stakeholders. The Agriculture for Development report argues that organizations form a major part of institutional reconstruction, and can use collective action and linkages to strengthen the position of smallholders in markets. Organizations can also contribute to the value chain approach by improving competitiveness by strengthening bargaining power to reduce transaction costs for inputs and outputs. Organizations are also a mechanism for providing disenfranchised groups with a voice in the policy process. To contribute to the value chain process, organizations must be able to (i) act as vehicles of change, (ii) be able to network through well-developed linkages, and (iii) have some form of governance to promote member confidence and solidarity. [3]

10. **Private sector participation.** Private sector involvement in developing commercial agriculture has become a common axiom in the DMCs and in this sense has come to refer to nonfarming commercial enterprises that are part of the supply chain. Typical investments may include storage facilities, processing, and marketing. Facilitating private sector involvement through project assistance is contingent on defining public and private sector roles and the benefits that will be gained by their respective contributions. Ideally the public role would be in the creation of policy and regulatory frameworks surrounding tariffs for imports and exports, biosecurity, public health and food safety, and use of natural resources. The public sector is also able to play an important role in research and development to increase productivity. Private sector roles in value chain development are then focused on activities that increase commercial transactions of products. Increasingly the private sector has become involved in providing extension services that encourage use of branded inputs and technology. Equitable development through private sector involvement can be problematic unless sectors agree on mutual and compatible objectives. The formation of PPPs is a common mechanism for developing synergies when private companies and public organizations lack the resources or incentives to fully develop products or exploit their assets independently. In the context of value chains, PPPs can be formed as

[2] World Bank. 2008. *Agriculture for Development*. Washington, DC.
[3] J. Bijman and G. Ton. 2008. *Capacity*. 34, p.4.

(i) a PPP forum that identifies constraints to value chain development and provides inputs into policy, regulatory, and institutional reform; and
(ii) joint ventures to provide essential services or industries. Key aspects to this involve clear definitions of capitalization, risk management, ongoing financial sustainability of the organization, and exit strategies for the public sector.

11. **Inclusion of the poor, women, and disenfranchised groups.** Commercial agriculture projects aim to benefit the poor by increasing sales of farm produce and/or providing employment opportunities. The project design logic for achieving this is that removing barriers and improving access to appropriate technologies and markets can increase the productive potential of poor smallholders. Although most commercial agriculture projects include a number of value chain features, the degree to which poor and marginalized groups will benefit through the value chain approach is dependent on how they are involved in these activities. Increasing the value of a product through a value chain approach has the potential to increase income for the poor, if suitable entry points can be identified. Given that production provides the largest employment opportunity for the poor, this is the most probable entry point. Value chains often require a high degree of production expertise, therefore inclusion of the poor must be implemented using a staged approach that increases technical skills over time and reduces the risk of failure.

APPENDIX 5. VALUE CHAIN LOGIC MODEL

Figure A5.1: Traditional Agricultural Supply Chain in Low-Income Countries

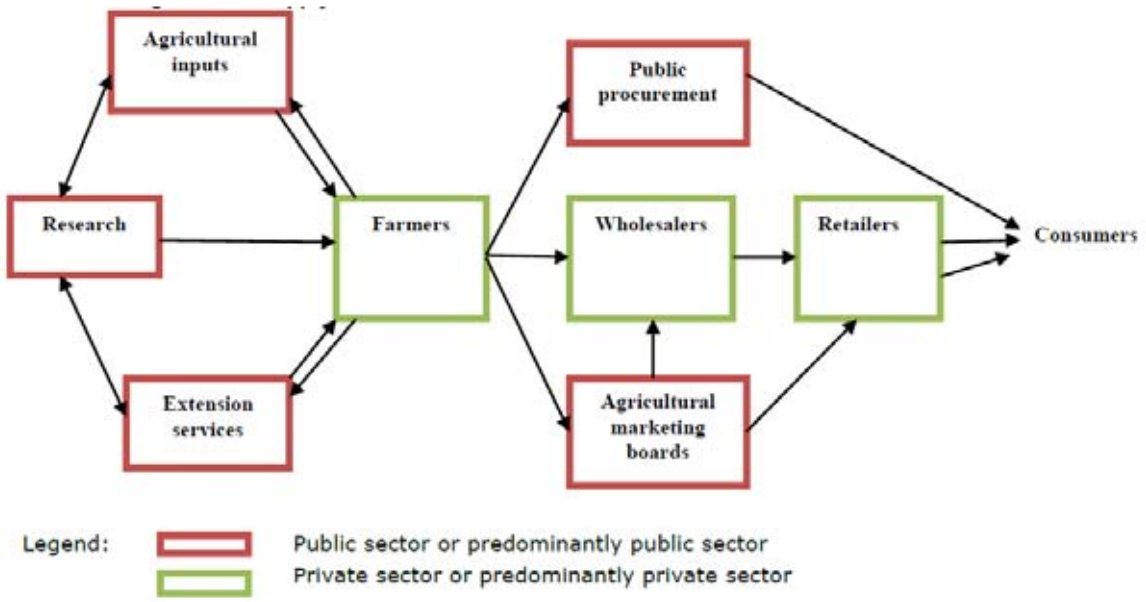
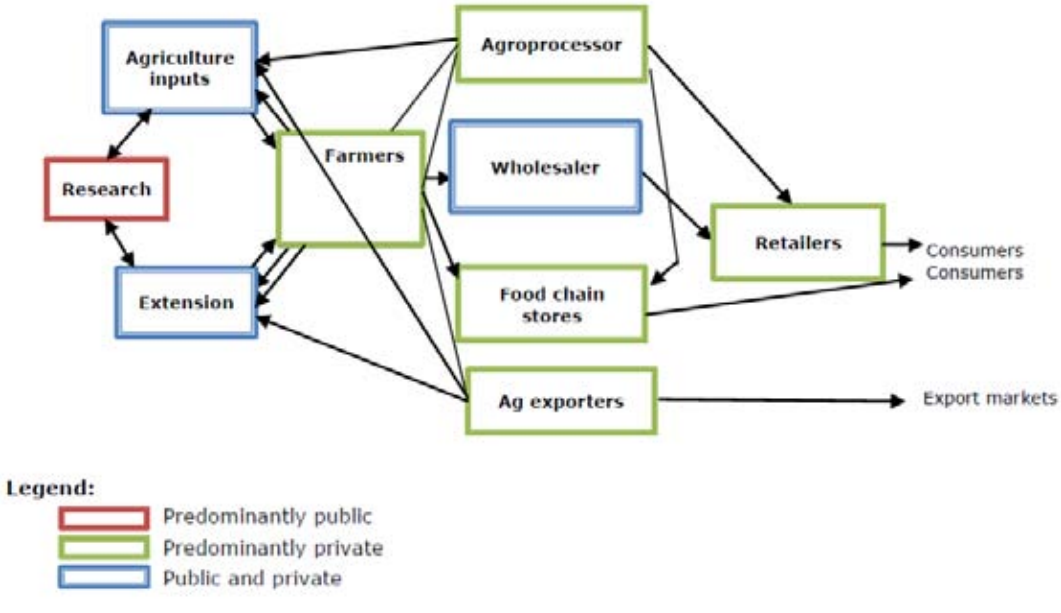


Figure A5.2: Current Trends in Agriculture Supply Chains



APPENDIX 6. SELECTED APPROACHES AND CASE STUDY LESSONS OF DEVELOPMENT PARTNERS

A. Selected Approaches

1. **Challenge fund approach** (Department for International Development, Ford Foundation, and World Bank)**.** Challenge funds have been adopted in a number of countries to promote a variety of development goals, including innovation, private sector development, value chain linkages, financial deepening, and poverty reduction. The underlying motivation of the challenge fund approach in development is that the private sector plays a critical in reducing poverty.

2. Challenge funds are a way to allocate grants competitively to corporate entities to implement development-oriented projects that meet the challenge fund eligibility criteria. Funds are used to encourage commercially focused stakeholders to make extra efforts to reach the poor or devise market-based solutions that would significantly benefit the poor. Challenge funds have been used successfully in the United Kingdom to engage the private sector in socially desirable projects such as urban regeneration. More recently, the Department for International Development tested several challenge funds such as the Financial Deepening Challenge Fund, the Business Linkages Challenge Fund, and the Ghana Business Linkages Challenge Fund. Currently, it is testing the Africa Enterprise Challenge Fund. In Asia, organizations such as the Asian Development Bank (ADB), Ford Foundation, and World Bank are testing the approach.

3. One reason for promoting challenge funds is that as government resources are limited and most of Asia is progressing in its path to achieving middle-income status, official development assistance will likely reduce. Pro-poor growth requires new sources of funding for improving infrastructure services for the poor, accelerating productive job creation for the poor, and integrating the poor into value chains. The challenge fund approach promises to leverage private investment that is commercially viable and benefits the poor.

4. **Partnership and lead firm approach.** This is one of the most successful approaches implemented in some projects of the United States Agency for International Development (Peru Poverty Reduction Alleviation project). In this approach, the project cooperates with firms and/or entrepreneurs identified as having the dominant or influential role in the value chain (this can be the largest grower, processor, trader, retailer) and works with them as the drivers of change in the value chain in the name of public good, but also for very sound commercial reasons. In this case, the public good is increasing overall production and generating economic growth that benefits members of the larger public. In addition, these partnerships elevate the overall quality of the value chains involved and succeed in connecting value chain participants with markets. The difficulty is in persuading these drivers to act as good partners and ensuring that public good occurs. The Agricultural Development and Value Chain Enhancement project in Ghana is an example. Partnerships with influential firms in various value chains are developed to drive activities that lead to greater value-added activities. In the case of agricultural projects, a lead firm is often an integrated producer or marketer. The decision regarding who may act as the partner driver or lead firm varies from country to country and by commodity in many cases.

5. **Investment approaches of the Inter-American Development Bank.** The Inter-American Development Bank (IADB) has various financial and nonfinancial instruments to support value chain development. Among them are regular sector loans made to governments, with the intension of supporting the overall framework for economic development. An example is the recent $27 million loan approved with the government of Honduras to support rural businesses in areas with high poverty. The program will provide resources to develop rural value chains and microenterprises in areas with high

potential for crop production. The Ministry of Agriculture's National Office for Sustainable Rural Development will implement the program.

6. The Inter-American Investment Corporation, an IADB member, makes loans and equity investments directly with private sector companies and funds, e.g., a recent $2 million loan to Ecofair, a Colombian banana exporter. The Inter-American Investment Corporation also collaborates and often participates in specialized investment funds, such as the Latin American Agribusiness Development Corporation, which in turn makes loans and investments in small and medium-sized enterprises. In the late 1970s, IADB created the Small Projects Program, a special vehicle to make loans and grants to rural microfinance organizations and farmer cooperatives. This program evolved into the Social Entrepreneurship Program (SEP), and continues to work with the same target groups. The SEP finances a combination of loans and technical assistance packages to support value chain financing initiatives and rural microfinance organizations. Many of SEP-financed projects are executed by farmer associations, cooperatives, agribusinesses, and nonprofit organizations working with smallholder farmers. The philosophy of these projects, which are run as pilot initiatives of around $1 million, is to support their early development, so that later they can become fully bankable operations.

7. Another IADB instrument to fund private sector development and value chain initiatives is the Multilateral Investment Fund (MIF), which is the leading source of technical assistance grants for micro and small business development in Latin America and the Caribbean. The MIF has approved more than 1,000 projects, primarily grants, with over 800 civil society, private sector, and government partners. Many of its projects aim at strengthening the capacity of small and microenterprises to link with global value chains. In some cases, the MIF has supported value chains directly, with grants that enhance worker skills, market access, or certification of products. In other cases, the MIF has worked with local governments to simplify business procedures and regulations. Through a window of financial investments, the MIF has also supported various venture and investment funds that have in turn financed value chain finance mechanisms and small and medium-sized enterprises.

B. Agrifood Value Chain Interventions in Asia and the Pacific: A Review and Analysis of Case Studies—Recommendations

8. **Selecting a value chain or building on former or existing projects.** The recommendations are the following:

(i) Base the choice to carry out a value chain intervention on stated objectives, especially when building on former or existing projects or a preselected value chain.
(ii) Ensure value chain development interventions are based on research of development practices. Do not simply trust former studies but critically engage with them and update them before using them to design a project.

9. **Participatory approaches.** Recommendations include the following:

(i) Consider practical concerns (such as stakeholder interests and pressure), but without losing focus of the project objectives.
(ii) Be aware of existing power structures in value chains that can influence analysis and design conducted through stakeholder participation—possibly resulting in the consolidation of such structures rather than the achievement of a more equitable distribution of risks and gains as dictated by the project objectives.
(iii) Value chain analysis carried out by stakeholders and value chain stakeholders should be critically interrogated, validated, and refined by the project team or other experts.

10. **Poverty, gender, and environment.** Include explicit poverty, gender, and environmental objectives in value chain selection, analysis, design (including baseline indicators), and monitoring—more than is currently the case.

11. **Project management competence**. Project managers and staff are key to success. Hiring qualified managerial and technical staff who are capable of steering value chain analyses, design, and implementation is important.

12. **Incentives and linkages.** Recommendations include the following:

(i) Conduct a thorough analysis of incentives as an integrated part of value analysis, not only in relation to collective stakeholders but also to key individuals.
(ii) Carefully consider organizational development in relation to promoting horizontal linkages, particularly among farmers; at the same time, farmer groups are not always the right answer to collective action.
(iii) Be aware of the risk taken by working with only one stakeholder in a value chain node, e.g., one input supplier or buyer.

APPENDIX 7. DEVELOPMENT PARTNER APPROACH TO VALUE CHAIN DEVELOPMENT

Table A7.1: Design Features of Value Chain Development

Design Features of Value Chains	Development Partner						
	IFAD	World Bank	FAO	GTZ	USAID	Ford Foundation	Danida
1. An enabling policy and regulatory framework	Promotes the development of competitive, transparent, and extensive private-sector-led markets for agricultural inputs and products	Supports policy reforms that promote competition, food safety, quality control, product certification, and supply-chain management Focuses the public sector's role on creating adequate conditions for developing efficient private sector supply chains, promoting investment in physical infrastructure, and supporting effective subcontracting systems and quality inspections through appropriate legal	Helps with appropriate policies and regulatory frameworks to support agribusiness development, relevant aspects of commerce, and agribusiness development strategies and methodologies for strengthening agricultural support systems	Supports an enabling policy framework for promoting product quality standards, trademark registration, investments, and exports	Supports the development of sound policy environments that enable open markets, private sector investment, and gender-equitable access to factors of production, products, and income Promotes effective institutions and governance to enable female and male producers to acquire, protect, and use the assets they need to take advantage of emergent market and trade opportunities	—	Ensures that market access, input supply and services, and access to credit and enabling (government) regulations are in place for SMEs by mitigating critical constraints in the value chains and ensuring the efficiency and competitiveness of investments

Design Features of Value Chains	Development Partner						
	IFAD	World Bank	FAO	GTZ	USAID	Ford Foundation	Danida
		frameworks and enforcement systems					
2. Credit	Provides access to a full range of financial services to SMEs through loan and equity financing of investments in priority agriculture value chains; loan financing through commercial banks of young entrepreneur investments in priority value chains; and pro-poor microfinance services (both medium-term investment credit and working capital) through savings and credit associations	Supports increased access to finance in activities that promote value chains		Strengthens financial services for value chain activities	Expands rural finance to increase the capacity of producers and producer groups to invest in production and processing operations and overcome gender-based constraints to access	Supports the development of appropriate financial products and delivery systems for the agriculture sector	
3. Infrastructure	Provides assistance for the construction of small-scale infrastructure (e.g., village roads, natural	Supports the rehabilitation of rural roads that would benefit value chain stakeholders	Provides TA for rural market infrastructure focusing on wholesale, retail, assembly, marketing, and				

Design Features of Value Chains	Development Partner						
	IFAD	World Bank	FAO	GTZ	USAID	Ford Foundation	Danida
	gas, electricity, and water supply). All proposals for infrastructure support must demonstrate a direct, verifiable link to priority value chains and the commercial viability of the proposed investment Constructs irrigation and water infrastructure in the lowlands to improve water management and access to water for the targeted value chains Improves storage and processing products through the rehabilitation and/or purchase of small equipment (e.g., through a warehouse receipt and matching grants)	(traders, transporters, agro-industries) in terms of increased quality and quantity of products, as well as reduced transport costs Expands investment in infrastructure (appropriate postharvest systems, roads, information systems, and energy)	storage facilities Supports needs assessments and implementation of rural market infrastructure projects and programs Disseminates best practices, models, guides, and strategy papers on infrastructure development				

Design Features of Value Chains	Development Partner						
	IFAD	World Bank	FAO	GTZ	USAID	Ford Foundation	Danida
4. Innovations and technology	Improves agricultural technologies and effective production services (e.g., the emergence of locally specific and demand-driven production services) including improved access of poor farmers to technologies and services, and improved ability to use them effectively to enhance productivity	Brings new technology and agricultural extension services to farmers Facilitates global policy dialogue to ensure fair access to new technologies and continue to provide leadership and financing	Provides assistance in the delivery of services e.g., technologies for production and postproduction activities Provides appraisal opportunities to improve value addition and profitability, including potential for agroprocessing technologies and systems Supports improvements in agrifood industry technical and operating efficiency through logistics, supply-chain management, packaging, traceability, and cold stores Provides data and information on best practices and cost-effective technologies for small and medium-sized agroprocessing enterprises for the handling,	Provides assistance in upgrading technology to promote the development of value chains	Provides access to production, storage, and processing technologies to enable male and female producers to provide products demanded by the market with the right quality and at competitive prices		Improves equipment and systems for storage, handling, and processing; and supports demonstration and installation of more efficient and profitable technology in critical problem areas

Design Features of Value Chains	Development Partner						
	IFAD	World Bank	FAO	GTZ	USAID	Ford Foundation	Danida
			processing, preserving, transporting, and marketing of food and other agricultural products				
5. Market	Enhances marketing techniques of targeted commodity chains Provides business development services to producer associations Endeavors to achieve international quality standards in production, processing, and packaging	Localizes the value chain approach by establishing community-managed procurement centers in villages; a procurement center provides a one-stop shop for suppliers, farmers, and traders Strengthens farmers' connections to markets through supply-chain management structures					
6. Information	Strengthens the market information system by improving the value chain	Strengthens and updates information systems for agricultural marketing and		Focuses on improving market transparency and strengthening the provision	Supports the expansion of effective training, education, and communication		

Design Features of Value Chains	Development Partner						
	IFAD	World Bank	FAO	GTZ	USAID	Ford Foundation	Danida
	monitoring system	business development advisory services		and availability of market information on the trade and marketing of agricultural products	systems that provide producers and those in agribusiness—women and men—with information needed to be effective market participants		
7. Organizations	Strengthens the capacity and organization of poor rural producers to access and negotiate with market intermediaries, so that they can engage in markets on more equal and profitable terms Strengthens the organizational capacity of rural farmer organizations (e.g., common initiative groups, farmer unions, and federations by building self-development capacity, support activities and	Provides assistance to institutional and capacity development for farmer-market-oriented smallholders and their organizations, and SMEs Provides training in strengthening linkages between firms within the supply chain and from firms to markets	Supports SMEs through capacity building of marketing, financial management, and entrepreneurial skills Builds the technical capacity of farmers, traders, and other stakeholders in good postharvest handling practices in agriculture-value chains	Develops linkages between producer associations, small-scale farmer cooperatives, and business contacts through training on quality management and product quality standards Raises the capacity of private entrepreneurs, including commercial and smallholder farmers	Strengthens producer groups and other rural organizations to enable them to gain market mastery and reduce transaction costs; gain access to and effectively use information on domestic, regional, and international markets; and facilitate technology transfer	Supports organization of value chains to link poor communities to markets, help them reduce transaction costs, and improve bargaining power in marketing produce and procuring production inputs	

Design Features of Value Chains	Development Partner						
	IFAD	World Bank	FAO	GTZ	USAID	Ford Foundation	Danida
	training, and exchange visits Establishes farmer field schools to address value chain constraints						
8. Private sector participation	Develops contract farming as a mechanism for promoting pro-poor agribusiness development	Promotes public–private partnerships, including community-driven development in value chain and contract marketing arrangements for agricultural products	Promotes private sector development and partnerships for investing in rural infrastructure such as feeder roads, markets, collection points, postharvest storage and processing facilities, and irrigation Reinforces public sector capacity to work with the private sector and civil society organizations to develop value chains for primary (raw materials) and fresh products, with particular attention to strengthening farmer–market agribusiness	Promotes partnerships with the private sector through business linkages and matching grants with farmers			

Design Features of Value Chains	Development Partner						
	IFAD	World Bank	FAO	GTZ	USAID	Ford Foundation	Danida
			linkages Provides data and information on organizational, managerial, and logistical issues impacting value chain performance; and on approaches for strengthening market linkages and value chain coordination				
9. Inclusion of disenfranchised groups	Pays special attention to the rural poor, particularly women and youth in line with the objective of enhancing sustainable on- and off-farm income-generating opportunities Establishes a national value chain platform through interprofessional consultations with producers and other stakeholders, and exchange	Focuses on institutional reform to establish minority rights and opportunities, and to strengthen the political voice of women, refugees, ethnic minorities, the landless, and the disabled		Targets the participation of women in the organizational development of producer organizations, enhancement of productivity, quality improvement, and product certification			

Design Features of Value Chains	Development Partner						
	IFAD	World Bank	FAO	GTZ	USAID	Ford Foundation	Danida
	visits to better-performing value chains and interventions Links producers, small and medium-sized entrepreneurs, and employees more profitably to agricultural commodity chains Puts particular emphasis on products that support the development of sustainable and improved incomes for the most vulnerable and poorest groups in rural areas Supports the establishment of inclusive policy and budgetary processes relative to agriculture and rural development that give space to poor rural people Strengthens						

Design Features of Value Chains	Development Partner						
	IFAD	World Bank	FAO	GTZ	USAID	Ford Foundation	Danida
	local capacity to effectively participate in local and national decision making						

Danida = Danish International Development Assistance, FAO = Food and Agriculture Organization, GTZ = Gessellschaft Technishe Zusammenarbeit, IFAD = International Fund for Agriculture Development, SME = small and medium-sized enterprise, USAID = United States Agency for International Development.
Source: Independent Evaluation Department.

Table A7.2: Summary Design Features of Value Chain of Development Partners

Design Features of a Value Chain	Development Partner						
	IFAD	World Bank	FAO	GTZ	USAID	Ford Foundation	Danida
1. An enabling policy and regulatory framework	✓	✓	✓	✓	✓		✓
2. Credit	✓	✓		✓	✓	✓	
3. Infrastructure	✓	✓	✓				
4. Innovations and technology	✓	✓	✓	✓	✓		✓
5. Market	✓	✓					
6. Information	✓	✓		✓	✓		
7. Organizations	✓	✓	✓	✓	✓	✓	
8. Private sector participation	✓	✓	✓	✓			
9. Inclusion of disenfranchised groups	✓	✓		✓			

Danida = Danish International Development Assistance, FAO = Food and Agriculture Organization, GTZ = *Gessellschaft Technishe Zusammenarbeit*, IFAD = International Fund for Agriculture Development, USAID = United States Agency for International Development.

Sources: International Fund for Agriculture Development. 2007. *IFAD Strategic Framework 2007–2010: Enabling Poor*. Rome; USAID. 2004. USAID Agriculture Strategy: *Linking Producers to Markets.* http://www.fao.org, http://www.gtz.org, http://www.ifad.org/operations, http://www.worldbank.org, and http://www.um.dk/en/menu/developmentpolicy/

APPENDIX 8. LOANS, TECHNICAL ASSISTANCE, AND GRANTS SUPPORTING COMMERCIAL AGRICULTURE

Table A8.1: Agriculture and Natural Resources Loans, Technical Assistance, and Grants with Commercialization (2001–2009)

	ANR		With Commercialization		% Commercialization to ANR	
Assistance	No. of Projects	Amount ($ million)	No. of Projects	Amount ($ million)	No. of Projects (%)	Amount (%)
Loans	86	4,426.7	53	2,642.0	61.6	59.7
Technical Assistance[a]						
ADTA[b]	142	99.4	50	43.5	35.2	43.8
PPTA	116	93.8	(not reviewed)			
Subtotal	**258**	**193.2**	**50**	**43.5**	**19.4**	**22.5**
Grants						
ADF	15	374.0	13	272.9	86.7	73.0
JFPR	33	83.5	28	67.2	84.8	80.4
JFICT	1	1.0	1	1.0	100.0	100.0
Others[c]	19	284.3	8	145.0	42.1	51.0
Subtotal	**68**	**742.8**	**50**	**486.1**	**73.5**	**65.4**

ADF = Asian Development Fund, ADTA = advisory technical assistance, ANR = agriculture and natural resources, JFICT = Japan Fund for Information and Communications Technology, JFPR = Japan Fund for Poverty Reduction, No. = number, PPTA = project preparatory technical assistance, TA = technical assistance.

[a] Starting in 2009, TA projects are classified as (i) project preparatory, (ii) capacity development, (iii) policy and advisory, and (iv) research and development. Source: Asian Development Bank. 2008. Bank Policies. *Operations Manual*. OM D12/BP. Manila.

[b] Includes advisory, capacity development, policy and advisory, and research and development TA projects.

[c] Other funding is provided by the United Kingdom, Global Environmental Facility, International Fund for Agriculture Development, Finland, Switzerland, and Spain.

Source: Asian Development Bank listing of loan, technical assistance, grant, and equity approvals database.

Table A8.2: Loans, Technical Assistance, and Grants with Commercialization (2001–2009)

Country	Loan		Technical Assistance		Grant	
	Number of Projects	Amount ($ million)	Number of Projects	Amount ($ million)	Number of Projects	Amount ($ million)
Viet Nam	7	463.1	4	9.1	5	21.3
Pakistan	6	741.8	3	1.0	1	5.0
China, People's Republic of	5	429.7	5	3.6	5	24.4
Cambodia	4	70.4	6	7.1	6	89.7
Uzbekistan	4	167.8	4	2.1	1	3.0
Tajikistan	4	72.0	2	1.5	4	24.2
Sri Lanka	4	95.0			1	0.9
Lao People's Democratic Republic	3	21.3	4	2.4	7	29.6
Bangladesh	3	158.6	3	2.0	2	57.6
India	2	62.6	3	2.7	1	5.0
Nepal	2	60.0	2	0.9	4	140.0
Indonesia	2	89.3	2	1.6	2	4.0
Philippines	2	103.8	1	0.6		
Papua New Guinea	2	11.6				
Fiji	1	25.0	3	1.4		
Afghanistan	1	55.0	2	2.8	4	56.0
Kyrgyz Republic	1	15.0	1	0.3	2	6.0
Mongolia			2	2.4	2	16.7
Maldives			1	0.2	1	1.0
Solomon			1	2.0		
Tonga			1	0.2		
Regional					2	1.8
Total	**53**	**2,642.0**	**50**	**43.5**	**50**	**486.1**

Source: Asian Development Bank Listing of loan, technical assistance, grant, and equity approvals database.

APPENDIX 9. MATRIX OF SUPPORT FOR COMMERCIAL AGRICULTURE PROGRAMS AND PROJECTS (2001–2009)

	Loan Number	Country	Project Name	Date Approved	Policy and Institutional Reforms[a]	Capacity Develop-ment[b]	Credit and Financing[c]	Rural Infrastruc-ture[d]	Productivity and On-Farm Assistance[e]	Post-Production and Processing Assistance[f]	Marketing Support Services[g]	Value Chain[h]
A. Agricultural Production and Markets												
1	1833	UZB	Ak Altin Agricultural Development	23-Aug-01	✓	✓			✓		✓	✓
2	1877/1878/1879	PAK	Agriculture Sector Program II	13-Dec-01	✓	✓	✓		✓			
3	1889	PNG	Nucleus Agro-Enterprises	18-Dec-01		✓	✓				✓	
4	1909	INO	Poor Farmers' Income Improvement through Innovation	15-Aug-02		✓	✓	✓	✓		✓	✓
5	1913/1914	SRI	Plantation Development	13-Sep-02	✓	✓	✓		✓	✓	✓	✓
6	1949	LAO	Smallholder Development	28-Nov-02		✓		✓	✓		✓	✓
7	2017	UZB	Grain Productivity Improvement	14-Nov-03	✓	✓	✓		✓	✓	✓	✓
8	2022/2023	CAM	Agriculture Sector Development Program and Project	26-Nov-03	✓	✓			✓	✓	✓	✓
9	2083	AFG	Agriculture Sector Program	4-May-04	✓	✓				✓		
10	2158	FIJ	Alternative Livelihoods Development	28-Mar-05		✓	✓	✓	✓		✓	✓
11	2171	PAK	Agribusiness Development	19-May-05	✓	✓	✓		✓		✓	✓
12	2190	BAN	Agribusiness Development	27-Oct-05	✓	✓	✓				✓	✓
13	2271	TAJ	Sustainable Cotton Subsector	3-Nov-06	✓		✓		✓	✓	✓	✓
14	2283	VIE	Agriculture Science and Technology	11-Dec-06		✓			✓			

	Loan Number	Country	Project Name	Date Approved	Policy and Institutional Reforms[a]	Capacity Development[b]	Credit and Financing[c]	Rural Infrastructure[d]	Productivity and On-Farm Assistance[e]	Post-Production and Processing Assistance[f]	Marketing Support Services[g]	Value Chain[h]
15	2314	KGZ	Southern Agriculture Area Development	29-Jan-07	✓	✓	✓		✓	✓	✓	✓
16	2313	TAJ	Rural Development	29-Jan-07	✓	✓	✓	✓	✓		✓	✓
17	2395	PRC	Henan Sustainable Agriculture and Productivity Improvement Project	13-Dec-07		✓			✓	✓	✓	✓
18	2465	PHI	Agrarian Reform Communities Project II	27-Oct-08	✓	✓	✓	✓	✓	✓	✓	✓
19	2607	PRC	Shanxi Integrated Agricultural Development	16-Dec-09		✓	✓		✓	✓	✓	✓
B. Agriculture and Rural Sector Development												
20	1849	SRI	Southern Province Rural Economic Advancement	26-Oct-01		✓	✓	✓			✓	
21	1862	CAM	Northwestern Rural Development	27-Nov-01		✓	✓	✓	✓			
22	1883	VIE	Central Region Livelihood Improvement	17-Dec-01		✓	✓		✓	✓		✓
23	1934	PAK	Sindh Rural Development	20-Nov-02	✓	✓	✓	✓	✓		✓	✓
24	1972/1973	VIE	Agriculture Sector Development Program	16-Dec-02	✓	✓	✓		✓	✓	✓	✓
25	1980	TAJ	Agriculture Rehabilitation	18-Dec-02		✓			✓			
26	2092	NEP	Decentralized Rural Infrastructure and Livelihood	24-Sep-04		✓		✓	✓			
27	2134	PAK	Sustainable Livelihoods in Barani Areas	14-Dec-04		✓	✓	✓	✓		✓	✓

	Loan Number	Country	Project Name	Date Approved	Policy and Institutional Reforms[a]	Capacity Development[b]	Credit and Financing[c]	Rural Infrastructure[d]	Productivity and On-Farm Assistance[e]	Post-Production and Processing Assistance[f]	Marketing Support Services[g]	Value Chain[h]
28	2234	PAK	Federally Administered Tribal Areas Rural Development	25-Apr-06		✓		✓	✓			
29	2254	BAN	Second Rural Infrastructure Improvement	18-Aug-06		✓		✓				
30	2357	VIE	Integrated Rural Development Sector Project in the Central Provinces	15-Oct-07		✓		✓	✓			
31	2513	VIE	Quality and Safety Enhancement of Agricultural Products and Biogas Development	18-Mar-09	✓	✓	✓	✓		✓		✓
32	2599	CAM	Tonle Sap Poverty Reduction and Smallholder Development	8-Dec-09	✓	✓	✓	✓	✓	✓	✓	✓
			C. Fishery									
33	1910/1911	SRI	Aquatic Resource Development and Quality Improvement	5-Sep-02	✓	✓	✓	✓	✓	✓	✓	✓
34	1925	PNG	Coastal Fisheries Management and Development	24-Oct-02	✓	✓		✓	✓	✓	✓	✓
35	2285	INO	Sustainable Aquaculture Development for Food Security and Poverty Reduction	12-Dec-06		✓	✓		✓	✓	✓	✓
			D. Livestock									
36	2070	BAN	Second Participatory Livestock Development	19-Dec-03		✓	✓	✓	✓	✓	✓	✓

	Loan Number	Country	Project Name	Date Approved	Policy and Institutional Reforms[a]	Capacity Development[b]	Credit and Financing[c]	Rural Infrastructure[d]	Productivity and On-Farm Assistance[e]	Post-Production and Processing Assistance[f]	Marketing Support Services[g]	Value Chain[h]
37	2071	NEP	Community Livestock Development	19-Dec-03		✓	✓	✓	✓	✓	✓	✓
38	2259	LAO	Northern Region Sustainable Livelihoods through Livestock Development	29-Sep-06		✓	✓	✓	✓		✓	✓
E. Forestry												
39	2209	LAO	Forest Plantations Development	16-Jan-06	✓	✓	✓		✓		✓	✓
40	2269	VIE	Forests for Livelihood Improvement	26-Oct-06	✓	✓	✓	✓	✓	✓	✓	✓
F. Irrigation, Drainage, and Flood Protection												
41	2069	UZB	Amu Zang Irrigation Rehabilitation	19-Dec-03	✓	✓	✓		✓			
42	2124	TAJ	Irrigation Rehabilitation	10-Dec-04	✓	✓			✓			
43	2159	IND	Chhattisgarh Irrigation Development	29-Mar-05		✓			✓			
44	2299/2300	PAK	Punjab Irrigated Agriculture Investment Program, Tranche 1: Lower Bari Doab Canal Improvement	18-Dec-06		✓			✓			
45	2444	IND	Orissa Integrated Irrigated Agriculture and Water Management Investment Program, Tranche 1	26-Sep-08		✓			✓		✓	✓
G. Land-Based Natural Resources Management												
46	2082	PRC	Fujian Soil Conservation and Rural Development II	28-Apr-04		✓	✓	✓	✓	✓		✓

	Loan Number	Country	Project Name	Date Approved	Policy and Institutional Reforms[a]	Capacity Development[b]	Credit and Financing[c]	Rural Infrastructure[d]	Productivity and On-Farm Assistance[e]	Post-Production and Processing Assistance[f]	Marketing Support Services[g]	Value Chain[h]
47	2245	UZB	Land Improvement	24-Jul-06	✓	✓			✓			
48	2436	PRC	Ningxia Integrated Ecosystem and Agricultural Development	29-Aug-08	✓	✓			✓	✓	✓	✓
49	2474	PRC	Dryland Sustainable Agriculture	25-Nov-08		✓	✓		✓	✓	✓	✓
H. Water-Based Natural Resources Management												
50	1855	VIE	Second Red River Basin Sector	13-Nov-01		✓		✓	✓		✓	✓
51	2027	SRI	North East Coastal Community Development	28-Nov-03	✓	✓	✓	✓	✓	✓	✓	✓
52	2311	PHI	Integrated Coastal Resources Management	23-Jan-07		✓						
53	2376	CAM	Tonle Sap Lowlands Rural Development Project	5-Dec-07		✓	✓	✓	✓		✓	✓
			Total		**25**	**52**	**33**	**25**	**47**	**23**	**36**	**36**
			% to Total (n=53)		47	98	62	47	89	43	68	68

AFG = Afghanistan, BAN = Bangladesh, CAM = Cambodia, FIJ = Fiji, IND = India, INO = Indonesia, KGZ = Kyrgyz Republic, LAO = Lao People's Democratic Republic, NEP = Nepal, PAK = Pakistan, PHI = Philippines, PNG = Papua New Guinea, PRC = People's Republic of China, SRI = Sri Lanka, TAJ = Tajikistan, UZB = Uzbekistan, VIE = Viet Nam.

[a] Support to (i) market policies, pricing, and domestic and export promotion; (ii) agricultural fishery policy framework and plan; (iii) land policies and registration; (iv) privatization of state-owned enterprises.

[b] Support to (i) capacity development of institutions, restructuring, or creation of agencies and units; (ii) training; and (iii) creation and establishment of farmer associations, enterprises, and trade groups.

[c] Support to (i) credit, and (ii) alternative forms of financing.

[d] Support to (i) rural and farm-to-market roads, and (ii) rural markets.

[e] Support to (i) irrigation and water supply; (ii) agricultural research and extension; (iii) production technologies; and (iv) input supplies, fertilizers, and machinery.

[f] Support to (i) processing, (ii) product quality and grading, and (iii) technology adoption and value-adding activities.

[g] Support to (i) market linkages, (ii) market advisory, and (iii) market information services.

[h] Interrelated support to production, postproduction, and marketing stages.

Source: Asian Development Bank.

APPENDIX 10. AGRICULTURE AND NATURAL RESOURCES TECHNICAL ASSISTANCE WITH COMMERCIALIZATION (2001–2009)

TA Number	Country	TA Name	Type	Total Amount ($)	Date Approved
3888	FIJ	Intermediation of Sugar Sector Restructuring	AD	660,000	24-Jun-02
4005	LAO	Agribusiness Support and Training	AD	250,000	28-Nov-02
4192	IND	Agribusiness and Commercial Agricultural Assessment	AD	600,000	09-Oct-03
4217	UZB	Furthering Reforms in the Grain Sector	AD	400,000	14-Nov-03
4310	CAM	Formulating a Master Plan for National Agriculture Research	AD	300,000	22-Dec-03
4337	MLD	Commercialization of Agriculture	AD	150,000	19-May-04
4392	LAO	Marketing Support for Organic Produce of Ethnic Minorities	AD	600,000	17-Sep-04
4572	FIJ	Strengthening Commercial Agriculture Development	AD	600,000	28-Mar-05
4587	PAK	Agribusiness Development Project Implementation Support	AD	150,000	17-May-05
4674	BAN	Strengthening Project Management	AD	600,000	27-Oct-05
7027	PRC	Strengthening the Capacity of the Sanmenxia Municipality Government in Strategic Planning and Management	AD	400,000	13-Dec-07
7101	BAN	Strengthening the Government's Institutional Capacity for Improving Food Security	AD	600,000	22-Jul-08
7139	MON	Agricultural Marketing and Brand Development	AD	2,000,000	29-Sep-08
7145	CAM	Strengthening Institutional Capacity for Emergency Response to Food Crisis and Improving Food Security	AD	1,500,000	02-Oct-08
3706	UZB	Institutional Support for Sustainable Agricultural Development	AD	600,000	23-Aug-01
4052	TAJ	Farm Debt Resolution and Policy Reforms	AD	960,000	18-Dec-02
4105	VIE	Agriculture Sector Development Support	AD	600,000	02-May-03
4112	TON	Agriculture Sector Review	AD	150,000	09-May-03
4228	CAM	Policy and Institutional Reforms in the Agriculture Sector	AD	1,000,000	26-Nov-03
4295	PAK	Capacity Building for Rural Development of the Federally Administered Tribal Areas	AD	465,000	19-Dec-03
4328	UZB	Agriculture Sector Review and Planning	AD	325,000	13-Apr-04
4334	AFG	Capacity Building for Agriculture Policy Reform	AD	1,000,000	04-May-04
4359	MON	Agriculture Sector Strategy Study	AD	350,000	12-Jul-04
4397	NEP	Capacity Building in Rural Infrastructure Institutions	AD	400,000	24-Sep-04
4401	PRC	Rural Income and Sustainable Development	AD	900,000	30-Sep-04
4723	PAK	National Agriculture Sector Strategy	AD	350,000	09-Dec-05
4774	NEP	Economic and Social Inclusion of the Disadvantaged Poor through Livelihood Enhancement with Micro-Irrigation	AD	450,000	20-Mar-06
4820	UZB	Implementation and Monitoring of Policy Reforms in the Agriculture Sector	AD	800,000	24-Jul-06
4295	PAK	Capacity Building for Rural Development of Federally Administered Tribal Areas (Supplementary)	AD	20,733	11-Sep-06
7305	CAM	Tonle Sap Technology Demonstrations for Productivity Enhancement	CD	3,450,000	01-Jul-09
7306	PRC	Policy Study on Government Public Expenditure in Agricultural Production	PA	1,000,000	06-Jul-09
3665	VIE	Training in Fishing Port Management	AD	140,000	05-Jun-01
4403	FIJ	Fisheries Sector Review	AD	150,000	07-Oct-04

TA Number	Country	TA Name	Type	Total Amount ($)	Date Approved
4551	INO	Marine and Fisheries Sector Strategy Study	AD	880,000	23-Dec-04
4563	CAM	Capacity Building of the Inland Fisheries Research and Development Institute II	AD	300,000	04-Feb-05
4708	PHI	Strategy for Sustainable Aquaculture Development for Poverty Reduction	AD	600,000	02-Dec-05
4859	VIE	Capacity Building for Forests Livelihood Improvement in the Central Highlands	AD	7,820,000	26-Oct-06
4405	KGZ	The Study on Pricing Systems and Cost-Recovery Mechanisms for Irrigation	AD	300,000	11-Oct-04
4573	IND	Water Users' Association Empowerment for Improved Irrigation Management in Chhattisgarh	AD	1,900,000	29-Mar-05
7260	BAN	Developing Innovative Approaches to Management of Major Irrigation Systems	CD	750,000	30-Mar-09
4137	INO	Carbon Sequestration through the Clean Development Mechanism	AD	700,000	02-Jul-03
4406	LAO	Capacity Building for Smallholder Livestock Systems	AD	550,000	11-Oct-04
4434	LAO	Poverty Reduction Through Land Tenure Consolidation, Participatory Natural Resources Management and Local Communities Skills Building	AD	850,000	17-Nov-04
4541	AFG	Natural Resources Management and Poverty Reduction	AD	1,785,000	23-Dec-04
4434	LAO	Poverty Reduction Through Land Tenure Consolidation, Participatory Natural Resources Management and Local Communities Skills Building (Supplementary)	AD	124,300	02-Mar-05
4810	PRC	National Strategy for Rural Biomass Renewable Energy Development	AD	400,000	29-Jun-06
4987	PRC	National Strategies for Environmental Management and Energy Conservation	AD	900,000	13-Nov-07
4376	CAM	Capacity Building for the Tonle Sap Poverty Reduction Initiative	AD	500,000	16-Aug-04
4472	TAJ	Support for Monitoring Policy Reforms and Improving Farm and Water Management	AD	500,000	10-Dec-04
4980	SOL	Domestic Maritime Support Project and Technical Support Program	AD	2,000,000	11-Oct-07
7220	VIE	Geo-Information Technology for Hazard Risk Assessment	AD	500,000	08-Dec-08
7410	IND	Advanced Project Preparedness for Poverty Reduction—Capacity Development for Sustainable Coastal Protection and Management (Subproject 3)	CD	200,000	04-Dec-09
		Total		**43,480,033**	

AD = advisory, AFG = Afghanistan, BAN = Bangladesh, CAM = Cambodia, CD = capacity development, FIJ = Fiji, IND = India, INO = Indonesia, KGZ = Kyrgyz Republic, LAO = Lao People's Democratic Republic, MLD = Maldives, MON = Mongolia, NEP = Nepal, PAK = Pakistan, PA = policy and advisory, PHI = Philippines, PRC = People's Republic of China, SOL = Solomon Islands, TA = technical assistance, TAJ = Tajikistan, TON = Tonga, UZB = Uzbekistan, VIE = Viet Nam.

Note: Starting in 2009, TA projects are classified according to (i) project preparatory, (ii) capacity development, (iii) policy and advisory, and (iv) research and development. Source: Asian Development Bank. 2008. Bank Policies. *Operations Manual*. OM Section D12/BP. Manila.

Source: Independent Evaluation Department.

APPENDIX 11. AGRICULTURE AND NATURAL RESOURCES GRANT-FINANCED PROJECTS WITH COMMERCIALIZATION (2001–2009)

Loan No.	Country	Project Name	ADF	JFPR	JFICT	Others	Other Source	Total ($)	Date Approved
				($'000)					
9033	VIE	Promoting Silk Income for the Rural Poor in Central Highlands		620.0				620.0	30-Oct-03
9036	REG	Improving Poor Farmers' Livelihoods through Postharvest Technology		750.0			-	750.0	18-Dec-03
9047	REG	Improving Poor Farmers' Livelihoods through Rice Information Technology			1,000.0		-	1,000.0	04-Jun-04
9066	MLD	Restoration of Livelihoods of the Tsunami-Affected Farmers in the Maldives		1,000.0			-	1,000.0	29-Apr-05
9071	VIE	Community-Based Agricultural Extension and Training in Mountainous Districts		900.0			-	900.0	22-Aug-05
9092	PAK	Immediate Support to Poor and Vulnerable Households in Inaccessible Areas Devastated by the 2005 Earthquake		5,000.0			-	5,000.0	27-Mar-06
0061	TAJ	Sustainable Cotton Subsector	6,500.0				-	6,500.0	03-Nov-06
0063	NEP	Commercial Agriculture Development	18,000.0				-	18,000.0	16-Nov-06
9100	AFG	Rural Business Support		18,000.0			-	18,000.0	12-Dec-06
0126	AFG	Agriculture Market Infrastructure	30,000.0				-	30,000.0	21-Nov-08
9008	TAJ	Tajikistan Rural Poverty Reduction		2,900.0			-	2,900.0	08-Aug-01
9009	BAN	Supporting Livelihood Improvement for the Poor through Water Management Associations		900.0			-	900.0	17-Aug-01
3800(L)	VIE	Central Region Livelihood Improvement				16,450.0	United Kingdom	16,450.0	18-Dec-01
9012	LAO	Supporting the Community-Managed Livelihood Improvement		1,000.0			-	1,000.0	18-Dec-01
9025	SRI	Infrastructure Maintenance to Reduce Rural Povert		900.0			-	900.0	16-Oct-02
9027	CAM	Improving the Livelihood of Poor Farmers in Southern Cambodia		1,800.0			-	1,800.0	11-Nov-02
9038	AFG	Integrated Community Development in Northern Afghanistan		3,000.0			-	3,000.0	26-Dec-03
9059	KGZ	Rural Livelihood Development		1,000.0			-	1,000.0	15-Dec-04
9062	LAO	Sustainable Agroforestry Systems for Livelihood Enhancemen of the Rural Poor		1,500.0			-	1,500.0	04-Jan-05

Loan No.	Country	Project Name	ADF	JFPR	JFICT	Others	Other Source	Total ($)	Date Approved
				($'000)					
9094	IND	Restoration and Diversification of Livelihoods for Tsunami-Affected Poor and Marginalized People in the States of Tamil Nadu and Kerala		5,000.0			-	5,000.0	21-Jun-06
0053	BAN	Second Rural Infrastructure Improvement				56,700.0	United Kingdom	56,700.0	18-Aug-06
9101	NEP	Improving the Livelihoods of Poor Farmers and Disadvantaged Groups in the Eastern Development Region		1,000.0			-	1,000.0	13-Dec-06
0072	TAJ	Rural Development	8,300.0				-	8,300.0	29-Jan-07
0073	KGZ	Southern Agriculture Area Development	5,000.0				-	5,0000.0	29-Jan-07
0103	VIE	Integrated Rural Development Sector in the Centra Provinces				1,300.0	AFD	1,300.0	15-Oct-07
0093	NEP	Rural Reconstruction and Rehabilitation Sector Development Program (Project Grant)	50,000.0				-	50,000.0	12-Dec-07
0094	NEP	Rural Reconstruction and Rehabilitation Sector Development Program (Program Grant)	50,000.0				-	50,000.0	12-Dec-07
0111	TAJ	Rural Development (Supplementary)				3,500.0	GEF	3,500.0	15-May-08
0112	KGZ	Southern Agriculture Area Development (Supplementary)					-	0.0	15-May-08
0115	MON	Agriculture and Rural Development	14,720.0				-	14,720.0	29-Sep-08
0116	CAM	Emergency Food Assistance	17,500.0				-	17,500.0	02-Oct-08
0093	NEP	Rural Reconstruction and Rehabilitation Sector Development (Supplementary)				20,000	United Kingdom	20,000.0	11-Nov-08
0186	CAM	Tonle Sap Poverty Reduction and Smallholder Development	27,300.0				-	27,300.0	08-Dec-09
0191	CAM	Tonle Sap Poverty Reduction and Smallholder Development				5,750.0	Finland	5,750.0	08-Dec-09
0192	CAM	Tonle Sap Poverty Reduction and Smallholder Development				6,690.0	IFAD	6,690.0	08-Dec-09
9049	INO	Sustainable Livelihood Development for Poor Coastal and Small Island Communities		1,500.0			-	1,500.0	17-Jun-04
9064	CAM	Improving the Access of Poor Floating Communities on the Tonle Sap to Social Infrastructure and Livelihood Activities		1,000.0			-	1,000.0	25-Feb-05
9072	INO	Sustainable Livelihood Development for Coastal Communities in the Special Province of Nanggroe Aceh Darussalam		2,500.0			-	2,500.0	06-Sep-05
9120	VIE	Livelihood Improvement of Vulnerable Ethnic Minority Communities Affected by the Song Bur 4 Hydropower Project in Quang Nam Province		2,000.0			-	2,000.0	26-Jun-08

Loan No.	Country	Project Name	ADF	JFPR	JFICT	Others	Other Source	Total ($)	Date Approved
				($'000)					
9011	PRC	Innovations for Participatory Flood Control by the Poor Along the Yellow River		1,000.0			-	1,000.0	16-Nov-01
9039	AFG	Rural Recovery through Community-Based Irrigation Rehabilitation		5,000.0			-	5,000.0	26-Dec-03
9126	TAJ	Community Participatory Flood Management		3,000.0			-	3,000.0	08-Sep-08
3945(L)	PRC	Efficient Utilization of Agricultural Wastes				6,360	GEF	6,360.0	22-Oct-02
0080	UZB	Land Improvement				3,000	GEF	3,000.0	09-Jan-08
9117	LAO	Alternative Livelihood for Upland Ethnic Groups in Houaphanh Province		1,820.0			-	1,820.0	13-Feb-08
9125	MON	Poverty Reduction through Community-Based Natural Resource Management		2,000.0			-	2,000.0	05-Aug-08
0128	PRC	Dryland Sustainable Agriculture				350	Spain	350.0	25-Nov-08
0144	LAO	Sustainable Natural Resource Management and Productivity Enhancement	20,000.0				-	20,000.0	23-Feb-09
0055	LAO	Northern Region Sustainable Livelihoods through Livestock Development	700.0				-	700.0	29-Sep-06
0056	LAO	Northern Region Sustainable Livelihoods through Livestock Development				3,500	Switzerland	3,500.0	29-Sep-06
9107	LAO	Enhancing Capacity of Local Government Agencies and Lao Women's Union for Sustainable Poverty Reduction in Northern Lao People's Democratic Republic		533.5			-	533.5	11-May-07
9032	NEP	Optimizing Productivity of Poor Water User Associations		1,000.0			-	1,000.0	04-Aug-03
9034	LAO	Reducing Poverty Among Ethnic Minority Women in the Nam Ngum River Basin		530.0			-	530.0	12-Nov-03
0457(L)	PRC	Sanjiang Plain Wetlands Protection				12,140.0	GEF	12,140.0	14-Mar-05
0034	CAM	Tonle Sap Sustainable Livelihoods	15,000.0				-	15,000.0	21-Dec-05
0035	CAM	Tonle Sap Sustainable Livelihoods				4,738.0	Finland	4,738.0	21-Dec-05
0092	CAM	Tonle Sap Lowlands Rural Development	9,900.0				-	9,900.0	05-Dec-07
0113	PRC	Ningxia Integrated Ecosystem and Agricultural Development				4,545.0	GEF	4,545.0	29-Aug-08
		Total	**272,920.0**	**67,153.5**	**1,000.0**	**145,023.0**		**486,096.5**	

ADF = Asian Development Fund, AFD = Agence Française de Développement, AFG = Afghanistan, BAN = Bangladesh, CAM = Cambodia, GEF = Global Environment Facility, IFAD = International Fund for Agricultural Development, IND = India, INO = Indonesia, JFICT = Japan Fund for Information and Communication Technology, JFPR = Japan Fund for Poverty Reduction, KGZ = Kyrgyz Republic, LAO = Lao People's Democratic Republic, MLD = Maldives, MON = Mongolia, NEP = Nepal, No. = number, PAK = Pakistan, PRC = People's Republic of China, REG = regional, SRI = Sri Lanka, TAJ = Tajikistan, UZB = Uzbekistan, VIE = Viet Nam.
Source: Independent Evaluation Department.