



Evaluation Study

Reference Number: SAP: NEP 2008-62
Sector Assistance Program Evaluation
June 2009

Agriculture and Natural Resources Sector in Nepal

Independent Evaluation Department

Asian Development Bank

CURRENCY EQUIVALENTS

(as of 1 April 2009)

Currency Unit	–	Nepalese rupee/s (NRe/s)
NRe1.00	=	\$0.0122631679
\$1.00	=	NRs81.544998

ABBREVIATIONS

ADB	–	Asian Development Bank
ADF	–	Asian Development Fund
AIC	–	Agricultural Inputs Corporation
ANR	–	agriculture and natural resources
ANRR	–	agriculture and natural resources research
APP	–	Agriculture Perspective Plan
CAD	–	Commercial Agriculture Development
CAPE	–	country assistance program evaluation
CGIAR	–	Consultative Group on International Agricultural Research
CGIS	–	community groundwater irrigation sector
CIDA	–	Canadian International Development Agency
CLD	–	community livestock development
CMIAS	–	Community-Managed Irrigated Agriculture Sector
COS	–	country operational strategy
CPS	–	country partnership strategy
CSP	–	country strategy and program
DADO	–	district agriculture development office
DDC	–	district development committee
DFID	–	Department for International Development of the United Kingdom
DLS	–	Department of Livestock Services
DOA	–	Department of Agriculture
DOI	–	Department of Irrigation
DOLIDAR	–	Department of Local Infrastructure Development and Agricultural Roads
DRIL	–	Decentralized Rural Infrastructure and Livelihood
EA	–	executing agency
GEEOW	–	gender equality and empowerment of women
GDP	–	gross domestic product
IARC	–	international agricultural research center
IED	–	Independent Evaluation Department
IRRI	–	International Rice Research Institute
MDG	–	Millennium Development Goal
MFI	–	microfinance institution
MOAC	–	Ministry of Agriculture and Cooperatives
NAP	–	National Agricultural Policy
NARC	–	Nepal Agricultural Research Council
NARDF	–	National Agriculture Research and Development Fund
NFC	–	Nepal Food Corporation
NGO	–	nongovernment organization
NLSS	–	Nepal Living Standards Survey
NRM	–	Nepal Resident Mission
ODA	–	overseas development assistance
PCR	–	project completion report
PFI	–	participating financial institution
PPR	–	project performance report

PRC	–	People’s Republic of China
RMDC	–	Rural Microfinance Development Centre
RMF	–	rural microfinance
SAPE	–	sector assistance program evaluation
STW	–	shallow tube well
TA	–	technical assistance
TCR	–	technical assistance completion report
TYIP	–	Three-Year Interim Plan
WTO	–	World Trade Organization
WUG	–	water users’ group
VDC	–	village development community

WEIGHTS AND MEASURES

ha	–	hectare
kCal/day	–	kilocalorie per day
kg	–	kilogram
km	–	kilometer
t	–	ton (metric)

NOTES

- (i) The fiscal year (FY) of the Government ends on 16 July. FY before a calendar year denotes the year in which the fiscal year ends, e.g., FY2000 ends on 16 July 2000.
- (ii) In this report, “\$” refers to US dollars.

Key Words

adb, agricultural production, agricultural productivity, agriculture and natural resources sector, nepal, anr, bottom-up assessment, commercialization, anr sector, anr top-down assessment, asian development bank, diversification, gender equality, inclusiveness, increases in income and employment, livestock, sector assistance, program evaluation, nepal, policy and institutional reform

Director General	H. S. Rao, Independent Evaluation Department (IED)
Director	R. Adhikari, Independent Evaluation Division 1, IED
Team leader	S. Shrestha, Evaluation Specialist, IED
Team members	T. Kondo, Senior Evaluation Specialist, IED C. Infantado, Portfolio Evaluation Officer, IED B. Q. Cafirma, Evaluation Assistant, IED V. Melo, Independent Evaluation Assistant, IED

Independent Evaluation Department, SE-14

In preparing any evaluation report, or by making any designation of or reference to a particular territory or geographic area in this document, the Independent Evaluation Department does not intend to make any judgments as to the legal or other status of any territory or area.

CONTENTS

	Page
EXECUTIVE SUMMARY	i
MAP	xi
I. INTRODUCTION	1
A. Purpose and Scope of the Evaluation	1
B. Evaluation Methodology and Approach	1
C. Study Limitations	1
D. Report Outline	2
II. THE SECTOR CONTEXT	2
A. Agriculture Sector Performance	2
B. Progress Toward Reducing Poverty, Improving Food Security, and Meeting the Millennium Development Goal on Poverty	3
C. The Government's Development Priorities and Strategies	5
III. ADB'S ASSISTANCE PROGRAM	8
A. Key Binding Constraints in the Sector	8
B. The Country Strategies and Assistance Program	8
C. Expected Results of Key Program Thrusts	11
D. Review of Past Evaluation Findings	11
IV. PERFORMANCE ASSESSMENT AND RATING	12
A. Top-Down Assessment	12
B. Bottom-Up Assessment	29
C. Overall Assessment of the Sector Performance	31
V. CONCLUSIONS AND LESSONS, STRATEGIC ISSUES FOR FUTURE, AND RECOMMENDATIONS	32
A. Main Findings and Lessons	32
B. Strategic Issues for the Future	35
C. Recommendations	37
APPENDIXES	
1. Background Information on the Study and Methodology	38
2. Crop and Livestock Production, Productivity, and Growth	52
3. Key Macro and Sector Challenges, 1997-2007	57
4. The Agriculture and Natural Resources Sector: Assessments and Ratings	66
5. Major External Assistance to Agriculture and Rural Development in Nepal, 1997-2007	69
6. Regional Technical Assistance in Nepal: A Case Study	72
7. ADB-Supported Key Sector Policies and Institutional Reforms	74
SUPPLEMENTARY APPENDIXES (available upon request)	
A. Evaluation of Agriculture Production and Marketing Subsector	
B. Evaluation of Irrigation, Drainage and Flood Protection Subsector	
C. Evaluation of the Livestock Subsector	
D. Evaluation Agricultural and Rural Development Subsector	

The guidelines formally adopted by the Independent Evaluation Department (IED) on avoiding conflict of interest in its independent evaluations were observed in the preparation of this report. Gerard Gill and Birendra Bir Basnyat provided support to the study. Indra Lal Kalu, Bhimendra Katwal, and Awadh Narayan Yadav provided inputs on project assessments. To the knowledge of the management of IED, there were no conflicts of interest of the persons preparing, reviewing, or approving this report.

Attachments: Management Response
DEC Chair Summary

EXECUTIVE SUMMARY

The main purpose of this sector assistance program evaluation (SAPE) is to assess the performance of the Asian Development Bank (ADB) assistance to the agriculture and natural resources (ANR) sector in Nepal. To achieve this, the SAPE (i) assesses the strategic and institutional performance of ADB's sector assistance, (ii) assesses the project and subsector performance, and (iii) identifies lessons and recommendations for ADB's future operations in the sector. This SAPE serves as an important input to the country assistance program evaluation (CAPE), the formulation of the next country partnership strategy (CPS), and the formulation and implementation of related assistance programs in Nepal.

The evaluation framework broadly follows the CAPE guidelines. A key component of the methodology was to combine a retrospective assessment of actions and accomplishments with anticipated outcomes from past and continuing operations. The overall performance assessment and ratings were based on a combination of top-down (strategic and institutional) and bottom-up (project and subsector) performance assessments.

Sector Challenges and National Development Plans

Over the evaluation period, agricultural growth rates averaged 3.3% in 1997–2001 but fell to 2.67% in 2002–2007, with high year-on-year variation reflecting high weather dependence. The sector output increased substantially in 2008 due to mainly improvement in security situation and favorable weather conditions. The sector's contribution to GDP declined from 40% in 1997 to 33% in 2007, but it continues to be main source of livelihood for the majority of the poor people. The composition of the agricultural GDP changed over the evaluation period, with cereal crops declining from 41% to 36% and horticulture increasing from 17% to 21%, while livestock remained constant at around 25%. The growth rate in cereal production was below the population growth rate, but vegetable production increased at 6.1% per annum.

Poverty in Nepal is primarily a rural problem, and it is strongly associated with gender, ethnicity, caste, and religion. It is highest in the mid-western and far-western development regions, though there are pockets of poverty nationwide. Income inequality grew, with the Gini coefficient rising from 0.34 in 1996 to 0.47 in 2004 (no data available for later years). Food insecurity remains a key concern, with 49% of children under 5 years old stunted, 20% severely stunted, 13% wasted, and 3% severely wasted. The target on the first Millennium Development Goal (MDG) on hunger (goal 1, target 1C) is further out of reach in Nepal than the targets for any other MDGs.

There were both macro- and sector-specific challenges during the evaluation period. The macro challenges were to create broad-based economic growth and adopt inclusive development during an armed conflict, eliminating exclusion based on gender and social factors like ethnicity, religion, and caste. The sector-specific challenges were to (i) increase factor productivity, (ii) expand the commercialization of agriculture based on high-value crops, (iii) improve the enabling environment for private sector development, (iv) develop the key institutions responsible for policy implementation, (v) strengthen the partnership approach, and (vi) improve cross-sectoral interaction.

To address such challenges, the Government of Nepal (the Government) has a range of plans covering the entire gamut of agricultural and rural development issues under its 20-year Agriculture Perspective Plan (APP). The Ninth Plan viewed development in terms of economic

liberalization, increased investment, and poverty reduction. The Tenth Plan identified the main challenge as the need to break out of the vicious poverty cycle. The Tenth Plan intended to (i) reduce poverty by increasing agricultural production, productivity, and contribute to food and nutritional security; (ii) contribute to sustainable production and growth through adaptive research and the development of technology to be used in agriculture, while protecting agrobiodiversity and stemming environmental impact by reducing pollution from the use of external inputs; and (iii) develop the internal market and promote export opportunities by promoting agro-based industries and enterprises with the participation of cooperatives and the private sector.

Following the end of the Tenth Plan/PRSP, the Government launched its Three-Year Interim Plan (TYIP) 2007/08 to 2009/10 to provide a framework for addressing development challenges in the transitional period. The plan's goal was to bring about economic and social transformation by boosting investment in the post-conflict period. It envisaged an economic growth rate of 5.5% per annum by 2009/10 (from 2.5% in 2006/07) to provide employment, lessen inequality and reduce poverty incidence to 24% by 2009/10. To help achieve these goals, its stated priority areas included: (i) physical infrastructure (through physical reconstruction and rehabilitation, with conflict-affected persons provided with relief for reintegration); (ii) investments (to support development through the inclusion of excluded groups); (iii) revitalizing the national economy (increased investments in physical infrastructure supporting agriculture, tourism, and industry); and (iv) increased investment in education, health, water supply and sanitation for enhancing the quality of human resources. The TYIP is likely to be extended for next 2–3 years.

Country Partnership Strategies and Assistance Program

The evaluation period encompassed three ADB country strategies—the country operational strategies (COSs) 1993–1998 and 1999–2003, and the country strategy and program (CSP) 2005–2009, which aimed to help the Government reduce poverty and promote broad-based economic growth. The strategies emphasized the development of agriculture as the main determinant of the country's economic growth and poverty reduction. To achieve these ends, the strategic thrusts were (i) sustainable improvements in agricultural production; (ii) sustainable increases in incomes and employment, particularly those of the poor, excluded, and vulnerable; (iii) the commercialization of the sector; (iv) gender equality and social inclusion; and (v) strengthening policies and key government institutions. ADB provided advisory technical assistance (TA) for the preparation of the APP and, subsequently, a series of TA projects for strengthening the planning process, institutional reforms, and the development of statistical systems for supporting sector development. In addition, the strategy stressed the implementation of the APP as the main thrust of rural development efforts.

The strategy as embodied in the CSP 2005, is closely aligned with the Government's Tenth Plan. This strategy adopted a medium- to long-term perspective to help reduce poverty and achieve the MDGs. The insurgency was already in full swing at the time of the preparation of the strategy, which factored in the implications of conflict for development and poverty reduction as well as challenges in implementing assistance projects. It stated that the lack of opportunity for advancement in rural areas contributed to endemic poverty, leading to conflict. Increasing agricultural productivity, food security and diversifying economic opportunities are considered in the CPS as key to rural development.

ADB provided \$1,078.1 million to Nepal during 1997–2007, and agriculture received 21.1% (\$228 million) of this—more than any other sector. ADB assistance to the sector of \$228 million during 1998–2007 was almost equal to the \$249 million from all other development

partners and donors combined. Over 90% of total sector assistance was allocated to three subsectors: (i) agricultural production and marketing (36% or \$82.7 million); (ii) agricultural and rural sector development (32% or \$73.7 million); and (iii) irrigation, drainage, and flood protection (22% or \$50.6 million). The remainder was allocated mostly to livestock (9% or \$21.4 million).

Review of Past Evaluation Findings

By the end of 2008 there were 39 evaluation reports, including project completion reports (PCRs) on agriculture in Nepal. Only 51% gave successful ratings. The success rate was low in processing agricultural production at 38%, and in livestock at 33%, but the irrigation subsector had a higher success rate of 77%. Looking at the trend in success rates, the projects approved in 1970s had a high success rate of 75%, and those approved in the 1980s had lowest, at 40%. Projects approved in the 1990s had a 55% success rate, indicating a slight improvement. In general, these success rates are higher than the ADB-wide average success rate for the sector.

The country synthesis prepared by the Independent Evaluation Department (IED) in 2000 reported that fewer than half of the sector projects were rated *successful* (48% *generally successful*, 29% *partly successful*, and 24% *unsuccessful*). The key factors affecting performance included (i) weaknesses in project preparation and design, (ii) lack of stakeholder participation, (iii) insufficient assessment of the institutional environment and the capabilities of executing agencies (EAs), (iv) weak supervision by ADB, and (v) inadequate assessment of policy and sector issues. Implementation delays were commonly cited as affecting performance. The average delay was 2.3 years, or a 48% overrun. Factors that contributed to these delays were related to procurement processes, limited institutional capacity, delays in the release of counterpart funds, and noncompliance with loan covenants. The evaluation identified several important issues including the need for (i) beneficiary and private sector participation, (ii) focus on poverty alleviation, and (iii) strengthening the institutional capacity of the Government and EAs for timely implementation.

The CAPE 2004 for Nepal raised serious questions about sector balance during 1999–2004. Noting that the lending program was meant to continue supporting the implementation of the APP, it observed that this focus seemed to have been lost to a certain degree. Overall, the CAPE 2004 concluded that sector assistance had contributed to the country's development as a whole and helped advance gender equity and environmental sustainability. Generally, the sector projects were found to have a good record of proactive design relevance and capacity development, but implementation efficiency was rated lower.

Performance Assessment and Rating

Overall Sector Performance. The overall assessment of the sector assistance is *partly successful*. As the evaluation period overlaps with armed conflict in the country, any accomplishments and failures of both the wider economy and ADB-funded projects have to be viewed in this context.

Top–Down Assessment. The overall top–down assessment of ADB's assistance to the sector is *successful* but on the borderline. ADB sector strategy was consistent with ADB's corporate objectives, strategic thrusts, and desired outcomes, as well as with the country's development constraints, plans, and priorities. Gender equality and the elimination of social exclusion are higher in the priorities of the sector than in others. There are, nevertheless, five

areas of concern about ADB's sector positioning (i) the sector portfolio is diverse, making it difficult to maintain focus and ensure synergy; (ii) too little direct support to improve productivity in such staple foods as cereals, pulses, and oilseeds, which are pivotal to food security and attaining MDG 1 on hunger, particularly in remote rural areas; (iii) insufficient support to developing and disseminating new technologies; and (iv) insufficient attention to the implications of a porous border and trading activities with India as acknowledged by both the COS 1999 and the CSP 2005, and sources of Nepal's potential comparative advantage for commercialization and diversification of agricultural and livestock products. Finally, there was a general ADB-wide decline in ANR staff capacity in recent years in response to lower priority to ANR in ADB's corporate strategies.

Despite these concerns, ADB assistance to the sector has contributed to long-lasting development results in some subsectors. It purposefully provided support to geographic regions and subsectors, which has brought the inclusion of poor and marginalized groups and contributed to local productivity gains and poverty reduction. Regarding livestock in particular, ADB has, as almost the only long-term development partner, made a clear, significant, and attributable contribution toward subsector development and farmers' income growth. Other attributable contributions are increasing the use of fertilizers, improved seeds, and irrigation development. ADB-supported projects have promoted the adoption of participatory approaches and institutional pluralism (involving local community organizations) in service delivery, initially through ADB's long-standing relationship with the Department of Livestock Services. These approaches were later adopted by the Ministry of Agriculture and Cooperatives in whole. Over the evaluation period, ADB helped the Government to formulate and/or reform a wide range of sector and subsector policies.

Government officials and other stakeholders generally consider ADB to be a responsive and reliable partner, recognizing it as Nepal's largest single development partner for agriculture. Generally, ADB has taken steps to ensure client ownership, though some key figures in the Government dispute the wisdom of removing subsidies for fertilizers and shallow tube wells, despite evidence to the contrary. ADB's perception of realities on the ground was sometimes inadequate, as in the case of design inadequacies for projects with multiple components that cross subsector boundaries. Project supervision and disbursement performance are the other areas where ADB's performance could have been better. Deeper and more meaningful engagement and consultation with key players and the regular monitoring of results could have helped avoid these difficulties.

Bottom-Up Assessment. The overall bottom-up (project and subsector level) assessment of the sector assistance is rated *partly successful*. Only 8 of 17 lending, grant and advisory technical assistance projects evaluated were rated successful by the SAPE. While almost all evaluated projects were *relevant*, there were shortfalls in their realized and also anticipated effectiveness in achieving objectives and efficiency in using resources to produce outputs. Sustainability of outputs and outcomes was not strong in all the cases. Anticipated impact of the sector assistance ranged from modest to substantial. These ratings may change in relation to changes that may occur in operation or in implementation of the evaluated projects as almost half of the projects evaluated were still ongoing.

The support provided was generally aligned with the main pillars of both national development plans and ADB's sector strategies; in most cases the executing agencies had strong ownership of the assistance. Increasingly the sector projects were designed specifically to take into account the needs of women and marginalized groups. Project design has become more relevant over time as good practices were identified and incorporated. However, it still

needs to improve in terms of technical soundness and the assessment of both executing agencies and implementation plans to improve their quality at entry.

The sector assistance in general is rated *less effective*. Only two subsectors, (i) livestock and (ii) agriculture and rural development, were assessed *effective*, as they achieved the intended outputs and outcomes in terms of improving food security, employment, household incomes, gender empowerment, and inclusiveness. Policy dialogue has improved the enabling environment, and partnerships with civil society enabled projects to continue to function throughout the conflict. One major problem, however, was recurring delays in implementation, which reduced the effectiveness of projects and compromised sustainability. While in some projects economic returns were estimated to be generally satisfactory, greater efficiency of resource use could have been achieved had there been fewer delays. Furthermore, the delays required extra time and resources for project supervision. In some cases hurried, last-minute project expenditure resulted in inefficient resource use, compromising the quality of outputs.

The overall assessment of sustainability of the sector outputs and outcomes is *likely* but on the low side. The outcomes of livestock and irrigation projects are likely to be sustained, as profitability provides the necessary motive to continue activities after project termination. However, the sustainability of rural roads remains problematic, though the Government has committed to a road maintenance fund for their upkeep. There are indications of renewed interest in the sector on the part of other development partners and donors. Some of them have adopted ADB-initiated modalities, which are likely to scale up or replicate activities ADB initiated and promoted elsewhere in the country.

Impact is assessed in terms of plausible contribution to long-term changes in development conditions through the ADB assistance program to the sector. This includes how successful the sector program has been in contributing to the attainment of specified development goals: changes in socioeconomic conditions, income poverty, non-income MDGs, and other specified national poverty reduction goals and objectives. Overall sector assistance is expected to have *substantial* impact but on the low side. Project completion reports show considerable impact in households in terms of production and productivity, income and savings, employment, food security, and positive environmental factors. Impact on long-term development prospects has taken such forms as (i) capacity development for partners in the Government, the private sector, and local and national nongovernment organizations; (ii) encouraging a partnership mentality; and (iii) empowering women and excluded groups and improving their awareness of their rights. Policy dialogue has fostered positive change in a range of areas, particularly the enabling environment and development partner coordination.

Lessons

ADB's assistance to the ANR sector over the evaluation period was well aligned with its four overarching development pillars. There was a strong focus on conflict and poverty reduction using an inclusive approach, and increasingly there has been a focus on geographical pockets of poverty. The goals of social inclusion and gender equality were appropriately adopted in sector assistance.

Some of the approaches used to continue projects in conflict areas included (i) partnering with local NGOs that could effectively mobilize and negotiate with local communities and other stakeholders; (ii) focusing on small, poorer farmers, who were not sufficiently included in past projects; (iii) focusing on pro-poor projects that produce tangible benefits quickly; (iv) ensuring a sense of project ownership among beneficiaries;

(v) implementing projects in a participatory manner; and (vi) ensuring that service delivery did no harm. However, the supervision and monitoring of service delivery for performance evaluation were not strong.

The improved availability of irrigation increased both yields and cropping intensity. Efforts to improve coordination among agriculture, irrigation, livestock, and rural finance agencies contributed to these endeavors. These efforts were believed to have reduced the incidence of poverty in rural communities.

There were, however, shortfalls in achieving sector objectives, as problems limited their realization. Support provided to bring about major changes in subsector policies and institutions and related outputs could have been better monitored and supervised to ensure that desired outcomes were achieved. Sufficient attention should have been given to the sources of the country's underlying comparative advantages, policy and institutional limitations, and the enabling environment for sector development.

There were shortfalls in project implementation performance due to the conflict, limited institutional capacity, and insufficient monitoring and evaluation. Some shortfalls were related to the allocation of staff resources at ADB headquarters and the Nepal Resident Mission and staff competency in project supervision and policy dialogue with the Government.

While ADB adopted a conflict-sensitive approach in its assistance strategy and program implementation, sometimes conflict intensity was difficult to predict. Moreover, as the conflict particularly affected rural areas, it had a disproportionately large effect on the agriculture portfolio. Clearly, program implementation and realized outputs may have been adversely affected by the insurgency, but there were also design, coordination, and implementation issues that constrained achievement. Key lessons regarding the most effective means of delivering assistance to local areas and beneficiaries should be a major basis for future project design.

Where projects and programs were found successful, improvements in agricultural production and impact were achieved by (i) raising the productivity of crops and livestock, (ii) expanding commercialization and diversification, (iii) improving the enabling environment through policy and institutional reform, (iv) helping to improve interagency coordination, and (v) ensuring that projects met quite exacting environmental standards.

Corruption remains a key governance challenge in sector operations. There are widespread complaints of corruption in public service arising from poor accountability and transparency. Twelve allegations of corruption were reported to the Integrity Division of the Office of the Auditor General of ADB on the projects under evaluation (as of October 2008). Most of the allegations were of bribery, irregular ranking for technical assessment in bidding process, misrepresentation and unfair selection processes, and exclusion and/or manipulation by interested parties. Future sector operations need to give careful considerations to these governance issues.

Issues

A number of issues remain to be addressed. First, sector assistance was thinly spread over many subsectors and activities and therefore fragmented in terms of type of project and regarding their implementation by several ministries, especially as Nepal has limited coordination capacity. Second, despite ADB's having contributed to sector reforms, monitoring was limited and support for policy implementation insufficient.

Third, the present sector strategy does not have an adequate technology focus in terms of either supporting ANR research providers or scaling up useful technologies generated in-country by regional technical assistance projects and the National Agriculture Research and Development Fund. The projects use conventional technologies that contribute little to productivity gains.

Fourth, project design often fails to take into account geographic and institutional realities on the ground, including ANR policies in neighboring countries. It sometimes fails to anticipate likely problems and risks and their mitigation measures. Fifth, projects are very often beset by delays, partly from management issues and partly from inadequate monitoring and supervision by executing agencies, key stakeholders, and ADB. In the case of monitoring, project reviews and missions tend to focus mainly on progress against issues flagged by previous missions, conducting basic troubleshooting, and monitoring inputs and some outputs. More rigorous monitoring is needed with adequate attention to results in relation to likely development outcomes and realism in rating project implementation performance.

Sixth, one of the key interventions needed to achieve growth and development in largely agriculture-based livelihood systems is to commercialize and diversify the sector. Opportunities for marketing agricultural produce exist in Nepal's urban centers and neighboring countries. Commercialization and diversification need to be addressed in a broad context that incorporates the emerging challenges and opportunities offered by regional trade agreements. Sector policies need to be developed in the context of trading partners' policies, addressing cross-border trade issues in the light of comparative advantage. Another necessary intervention is to create greater opportunities for rural employment and self-employment. The economy currently absorbs less than three quarters of the labor force, which is growing at 2.6% annually. Labor absorption could be linked to sector development by addressing bottlenecks in development, such as subsistence orientation, limited rural infrastructure, limited investment in agro-processing, weak linkages in value addition, and poor food quality and safety standards. Growing urbanization is opening up good market opportunities for high-value produce, but the lack of connectivity remains a major problem for many areas with high production potential.

Seventh, ADB-supported interventions in the sector have tended to be narrowly focused on the domestic market. Careful analysis of potential opportunities and constraints in neighboring and overseas markets, and of sources of underlying comparative advantage at home, should guide strategies for the expansion of the sector through commercialization and diversification. Prospects for exploiting both regional and global market potential were boosted when Nepal joined the World Trade Organization in 2003 and by its membership in some relatively new regional trade organizations.

Eighth, ADB's corporate capacity and competencies in the sector at the headquarters has declined in recent years as a result of limited success in the ANR sector operations and ensuing low priority in corporate strategies such as MTS II and Strategy 2020. Considering the ongoing agriculture and rural development related portfolio, ADB's staff resources at Nepal Resident Mission need strengthening to ensure better project implementation and ADB's continued support to the Government through policy dialogue.

Recommendations

The following directional recommendations are made for consideration by ADB Management for the next CPS.

Recommendation	Responsibility
<p>1. Reduce subsector spread of ADB assistance to the Sector to achieve optimal efficiency in resource allocation and use. [Paras. 47, 52, 117]</p> <ul style="list-style-type: none"> • Future support to the sector needs to be narrowly focused on the priority areas or subsectors to maximize development impact. The present practice of combining diverse and poorly-linked interventions in the form of ANR projects reduces the potential impact of such projects and of the total sector assistance. 	<p>South Asia Department (SARD)</p>
<p>2. Increase strategic focus in supporting the agriculture and natural resources (ANR) by increasing investment in rural infrastructure such as irrigation, rural roads, and market infrastructure). [Paras. 113, 114, 120]</p> <ul style="list-style-type: none"> • This approach would (i) be consistent with the Government's plans and ADB's Strategy 2020; (ii) compliment the Government's own and other development partners support to rural infrastructure development, including reconstruction and rehabilitation; (iii) improve irrigation facilities; and (iv) assist in improving connectivity and access of rural people to markets, economic activities and social services by that contributing to socially inclusive agriculture and rural development. 	<p>SARD</p>



82°00'E

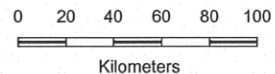
88°00'E

30°00'N

30°00'N

NEPAL

PEOPLE'S REPUBLIC OF CHINA



FAR-WESTERN DEVELOPMENT REGION

MID-WESTERN DEVELOPMENT REGION

WESTERN DEVELOPMENT REGION

CENTRAL DEVELOPMENT REGION

EASTERN DEVELOPMENT REGION

27°00'N

27°00'N

INDIA

- ★ National Capital
 - District Headquarters
 - Town/Market Center
 - National Highway
 - Feeder/District Road
 - River
 - - - District Boundary
 - - - Zonal Boundary
 - - - Regional Boundary
 - - - International Boundary
- Boundaries are not necessarily authoritative.

82°00'E

88°00'E

I. INTRODUCTION

A. Purpose and Scope of the Evaluation

1. The main purpose of this sector assistance program evaluation (SAPE) is to assess the overall performance of the Asian Development Bank (ADB) assistance to the agriculture and natural resources (ANR) sector¹ in Nepal. To achieve this, the SAPE (i) assesses the strategic and institutional performance of ADB's sector assistance, (ii) assesses project and subsector performance; and (iii) identifies lessons and recommendations for future ADB operations in the sector. The SAPE is an important input to the country assistance program evaluation (CAPE), to the formulation of the next country partnership strategy (CPS), and related assistance programs and their implementation.

2. This is the first SAPE for the ANR sector in Nepal. It covers ADB operations from 1997 to 2007—a period encompassed by three country strategies—1993–1998, 1999–2003, and 2005–2009—and related business plans.² The country's first comprehensive plan for the sector—the ADB-supported 20-year Agriculture Perspective Plan (APP)—was launched in 1997 and continues to be the basis of agricultural and rural development.

B. Evaluation Methodology and Approach

3. The evaluation framework broadly follows the CAPE guidelines.³ A key component of the methodology was to combine a retrospective assessment of actions and accomplishments with anticipated outcomes from past and continuing operations. The overall performance assessment and ratings were based on a combination of top–down (strategic and institutional) and bottom–up (project and subsector performance) assessments (Appendix 1).

4. The SAPE is based on (i) document reviews, (ii) key informant interviews, (iii) focus group discussions, (iv) project site visits, and (v) case studies. ADB staff based at headquarters and the Nepal Resident Mission (NRM) were interviewed. Field study sites were selected to include districts that could provide information on as many projects as possible (Appendix 1). The evaluation period overlaps with armed conflict in the country, and any accomplishments and failures of both the wider economy and ADB-funded projects have to be viewed in this context.

C. Study Limitations

5. Some practical difficulties in carrying out the study were caused by institutional factors and spillover from political disturbances. Government counterpart officials' retirement and frequent transfers created difficulties in gaining access to important documents and eliciting relevant perceptions. The field study was conducted during a difficult time in Nepal with frequent

¹ ANR is specified as a sector in ADB. However, the CSP for Nepal uses "agriculture and rural development," to refer to the ANR sector. In this report, 'the sector,' will be used to refer to "ANR," "agriculture," or "agriculture and rural development".

² The CPS was introduced in August 2005 to enhance country strategy and program (CSP) formulation. In 2001, the CPS integrated the country operational strategy study and country assistance plan processes and documents. ADB. 2004. *Nepal: Country Partnership Strategy*. Manila. Available: <http://www.adb.org/Documents/CSPs/NEP/default.asp>

³ ADB. 2006. *Guidelines for the Preparation of Country Assistance Program Evaluation Reports*. Manila. Available: <http://www.adb.org/Documents/Guidelines/Country-Assistance-Program/default.asp>

strikes, transport closures, and agitation by political activists, particularly in the *Terai*,⁴ making it difficult for the evaluation team to follow schedules or meet stakeholders, especially beneficiaries. These difficulties were resolved without compromising the quality of the work. As the larger part of the portfolio reviewed was continuing, evaluation reports only anticipated outcomes, impact, and their sustainability based on implementation performance as of the end of 2008.

D. Report Outline

6. The report is organized into five chapters. Chapter II provides the contextual background, including an examination of Government priorities during the evaluation period and an assessment of the key challenges facing the sector. Chapter III analyzes ADB's country strategy and program (CSP) over the period, examining the expected results of key program thrusts and consistency between the planned and realized program, and reviews past evaluation findings. Chapter IV reports on the performance assessment and rating, including subsector achievements on various thematic areas, as well as on factors affecting implementation and delivery of results. The main findings, key issues and lessons, and recommendations are presented in the final chapter.

II. THE SECTOR CONTEXT

7. **Evolving Political and Social Setting.** Nepal suffers from high poverty, social exclusion, elite capture of decision-making, poor connectivity and access to markets, corruption, and disparities in the distribution of wealth. These problems, plus disillusion with the failure of the restoration of democracy in 1991, fueled a violent insurgency launched by the Communist Party of Nepal (Maoist) in 1996. This generated in turn an equally violent counter insurgency reaction from the state.⁵ The conflict ended in November 2006 with an agreement of the Maoist party and a seven-party alliance.⁶ This led to the deposition of the King, declaration of a republic, and establishment of an interim multiparty government in January 2007. As the conflict particularly affected rural areas, it had a disproportionately large effect on the agricultural portfolio.

A. Agriculture Sector Performance

8. Agriculture accounted for 40% of gross domestic product (GDP) in 1997 and, despite falling to 33% by 2007, remains by far the largest sector of the economy. It employed 81% of the population in 1997, a figure that fell to 71% by 2007.⁷ The contribution of the sector to per capita GDP was only around half that of other sectors, illustrating low productivity. Over the evaluation period, agricultural growth rates averaged 3.3% during the Ninth Plan (1997–2001) but only 2.67% during the Tenth Plan (2002–2007). Both of these figures are above the

⁴ The Terai region is a 26–32 kilometer wide belt of alluvial and fertile plain in southern Nepal that extends from the westernmost part of the country to the eastern limit and covers about 17% of the total land area.

⁵ The International Rescue Committee estimates that 13,000 people were killed during the insurgency. A further 100,000–250,000 were internally displaced, and up to 2 million are thought to have fled to India to escape the violence.

⁶ However, strikes, transport closures, and agitation by political activists continue, particularly in the *Terai*, making it difficult to resume normal life.

⁷ The fall in agricultural employment included both “push” and “pull” factors. Push factors: (i) the conflict caused many to migrate from their villages; (ii) mechanization in Kathmandu valley and the *Terai*; and (iii) low agricultural wages and the general unattractiveness of agricultural work. Pull factors: (i) growing urbanization; (ii) the migration of young people from villages to urban areas after completing high school; and (iii) increased employment opportunities, mostly unskilled, in Persian Gulf countries.

population growth rate of 2.1% per annum, but with huge year-on-year variation, the range being 5% in 2003 to 1% in 2007. This variation reflects high weather dependence and an underdeveloped sector.

9. By far, the largest subsectors are cereals, horticulture, and livestock. The composition of agricultural GDP changed over the evaluation period, with the share of cereal crops declining from 41% to 36% and that of horticulture growing from 17% to 21%, while the contribution of livestock remained constant at around 25%. Horticulture crops are grown mainly for cash, while cereals are grown mainly for subsistence, so the increase in horticultural production indicates the increasing importance of commercial crops.⁸

10. Appendix 2 provides details of crop and livestock production, productivity, and growth over the evaluation period. The key features are as follows:

- (i) The cereals subsector is dominated by rice, which occupies 50% of the area under cereals, followed by maize at 25%–28% and wheat at 22%–23%.
- (ii) Cereal area hardly changed over the period, but cereal production grew at 2% per annum, which is below the rate of population growth.
- (iii) Cereal yields are low at 2.7 metric tons per hectare (t/ha) for rice, 1.9 t/ha for maize, and 1.8 t/ha for wheat. Figures for maize and wheat are especially low, but the annual growth rates of maize (2.5%) and wheat (3.1%) are much more than the 1% growth rate for rice over the evaluation period.
- (iv) Vegetables were the star performers, with area growing at 3.9% per annum, yields increasing at 2.2%, and production expanding at 6.1%.
- (v) The main change in livestock is in herd composition, with cattle, sheep, and duck numbers virtually unchanged across the period, while the number of buffalo, goats, pigs, and chickens grew. Meanwhile, there were significant increases in the production of milk at 2.9%, meat at 2.6%, and eggs at 3.75%.

11. Low yields indicate low land and labor productivity. Nepal has one of the lowest rates of growth in labor productivity in the region. Appendix 3 places these figures and other indicators in a regional context, comparing them with those of large South Asian countries and the People's Republic of China (PRC).

B. Progress Toward Reducing Poverty, Improving Food Security, and Meeting the Millennium Development Goal on Poverty

12. **Poverty Incidence.** Despite the conflict, the incidence of poverty has fallen in recent years, with the headcount poverty rate falling from 42% in 1996 to 31% in 2004. This was partly from growing urbanization and rising urban wages, but the main reason was a very significant growth in remittances from workers overseas, amounting to \$794 million, or 12% of GDP in 2003–2004.⁹ Appendix 3 details changes in the poverty situation between the first and second rounds of the Nepal Living Standards Survey (NLSS).¹⁰ There has been decline in the headcount poverty rate, though this average conceals huge disparities. While the headcount poverty rate is declining in most areas and for most groups, income inequality grew, as

⁸ Figures from this and the previous paragraph are calculated from the government sources: Government of Nepal. 2007. *Economic Surveys by the Government and National Accounts*. Kathmandu; and National Planning Commission. 2007. *Three-Year Interim Plan (2007/08–2009/10)*. Kathmandu.

⁹ World Bank. 2008. *Macroeconomics and Economic Growth in South Asia*. Washington, DC.

¹⁰ No NLSS has been carried out in recent years.

evidenced by a Gini coefficient that has risen from 0.34 in 1996 to 0.47 in 2004.¹¹ Poverty has an important regional dimension and is much more pronounced in the mid-western and far-western development regions than elsewhere in the country. Among the five development regions, poverty is reported to have increased in the eastern hills.

13. **Strong Correlation with Exclusion.** Table 1 shows the main dimensions of exclusion in Nepal. Table 2 demonstrates the strength of the association between exclusion and poverty incidence and shows that poverty has been declining most slowly among excluded groups, with the sole exception of the *Terai Janajatis*. Within the food-deficient population, women are more vulnerable and likely to fall in the deficiency trap at any time. According to the Nepal Demographic and Health Survey in 2006, 8% of women were severely thin, with a body mass index <17, and the percentage was highest in the *Terai* 11.9%. Illiterate women were more vulnerable to malnutrition, with 10.5% having a body mass index of <17, confirming that food deficiency is selective, mainly from discrimination in food allocation within households.

Table 1: Dimensions of Exclusion in Nepal

Group	Gender	Caste ^a	Ethnicity/Race ^b	Language	Religion	Geo-Political
Dominant	Men/ boys	<i>Tagadhari</i> . ^c <i>Brahman</i> , <i>Chhetri</i>	<i>Caucasoid</i> (Indo-Aryan)	Nepali	Hindu	<i>Parbatiya</i> (hill dweller)
Subordinate	Women/ girls	<i>Dalit</i> ^d	<i>Janajati</i> ^e / Mongoloid	Other	Other	<i>Madhesi</i> (plain dweller)

^a The caste system is a social division of people based on their occupation and access to power. The Nepalese caste system is highly complex form of social stratifications. .

^b Caucasoid and Mongoloid are Nepal's two major types of population.

^c The fourfold caste divisions are *Brahman* (priests and scholars), *Kshatriya* or *Chhetri* (rulers and warriors), *Vaisya* (or *Vaisaya*, merchants and traders), and *Sudra* (farmers, artisans, and laborers). The *Tagadharis* include Nepal's highest castes: *Brahmins*, *Thakuris*, and *Chetris*.

^d The term 'untouchable' or *Achhut* has been in the Nepali discourse from a very long period of time denoting those castes of Shudras, who are not permitted by upper castes to enter their houses, temples and other public places. In last decades of 20th Century, the term *dalit* was used to replace the word '*Achhut*'.

^e *Janajatis* are communities having their original and distinct language and culture that are considered socially backward in comparison to other caste groups.

Source: DFID and World Bank. 2006. *Unequal Citizens: Gender, Caste and Ethnic Exclusion in Nepal*. Kathmandu.

¹¹ This indicator is higher in Nepal than anywhere else in Asia. United Nations Country Team in Nepal. 2008. *The Millennium Development Goals: Summary Note on Progress in Nepal*. Kathmandu.

Table 2: Poverty and Exclusion
(% below the poverty line)

Year	Total Brahman/ Chhetri	Terai ^a Middle Class	Total Dalits	Newar ^b	Hill Janajati	Terai Janajati	Muslim	Nepal
1995/96	34	29	59	19	49	53	44	42
2003/04	19	21	47	14	44	36	41	31
Change (%)	(6.2)	(3.4)	(2.5)	(3.2)	(1.1)	(4.1)	(0.7)	(3.2)

() = negative.

^a The *Terai* region is a 26–32 kilometer wide belt of alluvial and fertile plain in southern Nepal that extends from the westernmost part of the country to the eastern limit and covers about 17% of the total land area.

^b The term *Newar* applies roughly to the descendants of citizens of medieval Nepal. They are a linguistic community with Tibeto-Burman and Indo ethnicity and/or race, bound together by a common language.

Source: Calculated from DFID and World Bank. 2006. *Unequal Citizens: Gender, Caste and Ethnic Exclusion in Nepal*. Kathmandu.

14. **Food Security.** Until quite recently, Nepal's food security priorities were supply-dominated, focusing on enhancing food availability while paying little attention to the three other dimensions of the food security: access, utilization, and stability. Food availability does not necessarily guarantee access. For example, the *Terai* is the area of Nepal with a grain surplus, but 37% of its population consumes less than the recommended 2,146 kilocalories per day.¹² The Three-Year Interim Plan (TYIP) estimated per capita food availability in 2007 at just 280 kilograms per capita per year. The most recent Nepal Demographic and Health Survey, in 2006, found that 49% of children under 5 years of age were stunted (the highest such figure in the world), 20% severely stunted, 13% wasted, and 3% severely wasted. The survey further noted that 51% rural children were stunted, much more than the 36% of urban children.¹³ When compared with the data of 2001, there was a marked decline in the number of children underweight, but there was very little decrease in wasting, indicating that acute malnutrition remains a largely unaddressed challenge.

15. **Millennium Development Goal on Hunger.** Progress in reducing income poverty put the country on track to meet MDG target 1.A.¹⁴ The country is off-track with respect to the other two MDG 1 targets. Target 1.B¹⁵ represents a huge challenge. The number of economically active people is growing at 2.6% per annum, but the economy is currently able to absorb less than three quarters of that number.¹⁶ Unemployment, like poverty, is higher in rural areas than in urban. Target 1.C¹⁷ is categorized by United Nations country team in Nepal as unlikely to be achieved. The number of underweight children fell by just 4 percentage points, from 43% to 39%, between 2000 and 2006, against a target of 24% by 2015.

C. The Government's Development Priorities and Strategies

16. The Government has a range of sector plans covering the entire gamut of agricultural and rural development issues. The APP is the most comprehensive in terms of its coverage and

¹² Enhanced food availability does, however, improve access to food if it lowers food prices.

¹³ For children, stunting (low height for age) measures chronic malnutrition and wasting (low weight for height) acute malnutrition. The body mass index used for adults is akin to wasting.

¹⁴ Halve, between 1990 and 2015, the proportion of people whose income is less than \$1 a day.

¹⁵ Achieve full and productive employment and decent work for all, including women and young people.

¹⁶ Devendra Chapagain. 2008. *Rural Employment and Other Rural Incomes*. Kathmandu.

¹⁷ Halve, between 1990 and 2015, the proportion of people who suffer from hunger.

20-year timeframe.¹⁸ It covers almost the entire agricultural and rural development spectrum—agriculture, irrigation and water control, livestock, forestry, environment, agribusiness, credit, and institutions—as well as related rural development topics, including gender issues, roads, power, and the environment. The key components of the APP are the following:

- (i) Input investment priorities: (a) irrigation using shallow tube wells (STWs), seen as vital to the strategy of promoting a *Terai* (footnote 4) green revolution; (b) roads and power, in particular agricultural roads and rural electrification; (c) technology, in particular fertility research to complement increased fertilizer use; and (d) fertilizer, initially retaining subsidies in the hope that India will gradually reduce its subsidies.
- (ii) Output investment priorities: (a) encouragement of an efficient, competitive private sector; (b) concentration of public investment in the four input investment priorities; (c) price policy to make output much more responsive to price signals; and (d) concentration of fragmented landholdings in the *Terai* to make investments in STWs more efficient.
- (iii) Institutional priorities: (a) creating agencies to implement the APP, (b) creating a department of agricultural roads, (c) strengthening the Agricultural Development Bank as the lead agency for financing various elements of APP investment, (d) the evolution of the Agricultural Inputs Corporation (AIC) to serve as lead agency for meeting fertilizer targets; and (e) the expansion of the Nepal Agricultural Research Council (NARC) and its redirection to liaise with the Department of Agriculture (DOA) to provide extension services in priority areas of production, particularly those producing high-value commodities.
- (iv) Packaging priorities so that areas with high potential receive the package early.
- (v) Specializing the *Terai* on cereal production, and the hills and mountains on horticulture, livestock, and other high-value commodities.
- (vi) Agricultural growth at 4.9% per annum to serve as an engine of growth for the entire economy through multiplier effects on other sectors.

17. The APP has attracted a lot of criticism:¹⁹ (i) The approach is supply-driven, its focus on commercialization is narrow, it pays scant attention to marketing issues, and it contains limited analysis of terms of trade, Nepal's comparative advantage, or trade and exchange rate regimes. (ii) There is no analysis of the implications of agricultural policy in neighboring countries for Nepal vis-à-vis its own policies for agricultural support and trade and exchange rates. (iii) Its treatment of food security issues is incomplete, with the emphasis mostly on food availability, and access issues seen solely in terms of lower food prices and employment generation. The other two facets of food insecurity—food utilization and vulnerability to food insecurity—are not covered. (iv) Gender issues appear to be afterthoughts, and no attention has been paid to other excluded groups. (v) It proposes continued reliance on subsidies, though they were widely viewed as limiting supply because of budget constraints. In addition to these design flaws, the implementation of the APP has been limited by capacity and resource constraints. The launch of the APP coincided with the start of the conflict, which diverted much of the Government's limited resources.

¹⁸ The Common Minimum Program of the present interim government vows to implement APP effectively to support the transition from subsistence to commercial agriculture.

¹⁹ Those who drafted the APP faced the fundamental problem of producing a perspective plan for one sector in the absence of an overall perspective plan for other sectors, without which it was difficult to visualize how this sector would fit into the broader economic picture and make a realistic assessment of numerous inter-sectoral linkages.

18. Despite these limitations, the APP received the backing of all political parties and formed the backbone of the Ninth Plan (1997/98–2001/02), the Tenth Plan (2002/03–2007/08) and the current TYIP (2007/08 to 2009/10).²⁰ The Ninth Plan's strategy for poverty alleviation placed strong emphasis on agriculture and rural development, stating that its strategy would be the "integrated development of the agriculture and forestry sectors and high, sustainable, and poverty alleviation-oriented economic growth with a focus on these sectors." The implementation mechanism was basically to follow the APP. The Tenth Plan set the following objectives for the sector: (i) reduce poverty by increasing production, productivity, and income from agriculture, and contribute to food and nutritional security; (ii) contribute to sustainable production and growth by adaptive research and development of technology to be used in agriculture, while protecting and using agro-biodiversity and balance in the environment by reducing pollution from the use of external inputs; and (iii) develop the internal market and promote export opportunities by promoting agro-based industries and enterprises with the participation of cooperatives and the private sector.

19. The Government launched its current TYIP 2007/08 to 2009/10 to provide a framework for addressing development challenges in the transitional period. The plan's goal was to bring about economic and social transformation by boosting investment in the post-conflict period. It envisaged an economic growth rate of 5.5% per annum by 2009/10 (from 2.5% in 2006/07) to provide employment, lessen inequality and reduce poverty incidence to 24% by 2009/10. To help achieve these goals, its stated priority areas included: (i) physical infrastructure (through physical reconstruction and rehabilitation, with conflict-affected persons provided with relief for reintegration); (ii) investments (to support development through the inclusion of excluded groups); (iii) revitalizing the national economy (increased investments in physical infrastructure supporting agriculture, tourism, and industry); and (iv) increased investment in education, health, water supply and sanitation for enhancing the quality of human resources. The TYIP is likely to be extended for next 2–3 years, instead of formulating a new one, since its goal and priorities will remain relevant, and political transition will require some time.

20. Many elements of the APP were adopted by implementing agencies, as, for example, (i) DOA accepted the prioritized productivity package, (ii) the Ministry of Agriculture and Cooperatives (MOAC) decided to set up a fertilizer unit, and (iii) the Department of Local Infrastructure Development and Agricultural Roads (DOLIDAR) was established within the Ministry of Local Development. However, some other elements were significantly modified, particularly the decision late in 1997 to phase out subsidies on fertilizer and STWs and to abolish AIC's monopoly on fertilizer sales. Moreover the institution set up to monitor progress on the APP was short-lived. Complicating the picture further, a range of new post-APP subsector policies have been adopted, including the National Fertilizer Policy of 2002, National Agricultural Policy (NAP) of 2004, and National Microfinance Policy of 2005, as well as policies on a number of commodities like tea and coffee.²¹

²⁰ The Three-Year Interim Plan (2007–2010) was prepared to bridge following the Tenth Plan. The Common Minimum Program of the present interim government vows to implement the APP effectively.

²¹ The underlying principles of the National Fertilizer Policy state that the "participation of the private sector is indispensable to improve the availability of fertilizers and promote increased demand for fertilizers among farmers;" that "all actors (public, cooperatives, and the private sector) should have equal opportunities in the fertilizer trade;" and that "in the context of the emerging trend of globalization, fast development and dissemination of information technologies and market-oriented economic systems, government should reorient its role away from direct involvement in the trade toward regulation and facilitation." The National Agriculture Policy encourages multiagency provision of research and extension, unlike the APP, which focused on public sector monopolies like NARC and DOA. The NAP also makes special provision for "farmers belonging to the depressed and oppressed classes and other marginal farmers and landless agricultural laborers." Government of Nepal, MOAC. 2004. *National Agricultural Policy*. Kathmandu.

III. ADB'S ASSISTANCE PROGRAM

21. In 1997, ADB had five strategic development objectives: (i) promoting economic growth, (ii) reducing poverty, (iii) supporting human development (including population planning), (iv) improving the status of women, and (v) protecting the environment.²² Roughly halfway through the period, a new long-term strategy was announced for the period 2001–2015, which had three core strategic areas of intervention: (i) sustainable broad-based economic growth, (ii) inclusive social development, and (iii) governance for effective policies and institutions. These three objectives are consistent with the four pillars of Nepal's Tenth Plan²³ as described in the previous chapter and in Appendix 3 and broadly consistent with ADB's corporate strategic framework.²⁴

A. Key Binding Constraints in the Sector

22. There are several major factors constraining the sector's growth in addition to political instability and security concerns. These can be broadly grouped as economic, institutional, and policy related. Agriculture is highly dependent on weather, as only 30% of agricultural land has year-round irrigation. As a result, national agricultural productivity has remained low and unstable. Agricultural productivity is lowest by South Asia standards. Diversification of agriculture is constrained by farmers' limited access to markets, and irrigation facilities, among other services. Budgetary constraints have limited the capacity of the Government to invest in rural roads and other marketing infrastructure. Poor coordination among ministries and departments in planning and implementing programs reduces program effectiveness and efficiency. Similarly, delivery mechanisms through local government institutions and nongovernment organizations (NGOs) are weak. Regarding sector policy, substantial increases in rural investments (e.g., roads and bridges, and irrigation) are needed to support agricultural growth, broaden income and employment opportunities, and improve connectivity and inclusion. These constraints can be categorized under six sector level challenges: (i) sustainably raising factor productivity; (ii) commercializing the sector; (iii) improving the enabling environment; (iv) developing institutions and running them effectively; (v) strengthening partnerships with the private sector and NGOs; and (vi) improving inter-sectoral linkages and coordination (Appendix 3).

B. The Country Strategies and Assistance Program

23. ADB's lending and nonlending programs in Nepal during the evaluation period aimed to support the Government's efforts to reduce poverty and promote broad economic growth. A common theme among these plans was emphasis on the development of agriculture as the main determinant of the country's economic growth and poverty reduction. In addition, ADB provided knowledge products and services and policy advocacy as part of its operations.

24. **Country Operational Strategies (1993–1998 and 1999–2003).** Under these two country strategies, ADB provided advisory technical assistance (TA) to prepare the APP, supported its implementation with a program loan, and subsequently provided four loans—

²² ADB. 1995. *The Bank's Medium-Term Strategic Framework, 1995–1998*. Manila.

²³ The Tenth Plan is also the country's Poverty Reduction Strategy Plan.

²⁴ The Ninth Plan saw development in terms of economic liberalization, increased investment, and poverty reduction. The Tenth Plan viewed it in a wider context, identifying the main challenge as breaking out of the vicious cycle of poverty through a plan resting on four pillars: (i) faster and pro-poor economic growth, (ii) equitable access to social and economic infrastructure and resources for poor and marginalized groups, (iii) social inclusion and targeted programs, and (iv) improved governance.

(i) Community Groundwater Irrigation Sector (CGIS), (ii) Crop Diversification, (iii) Community Livestock Development (CLD), and (iv) Rural Microfinance—and a series of TA projects for strengthening the planning process, institutional reforms, and developing statistical systems to support sector development. These were followed up by two loans for (i) decentralized rural infrastructure and livelihood and (ii) gender equality and the empowerment of women—both approved in 2004.

25. **Country Strategy and Program (2005–2009).**²⁵ The CSP 2005 is closely aligned with the Government's Tenth Plan and adopted a medium- to long-term perspective to help the country reduce poverty and achieve the MDGs. The insurgency was in full force during the preparation of the CPS in 2004, and it factored in the implications of the conflict for development and poverty reduction. The CPS stated that the lack of opportunities for advancement in rural areas contributed to endemic poverty, leading to conflict. Raising agricultural productivity to rates nearer the regional average, improved commercialization, and diversified economic opportunities are considered in the CPS as the keys to rural development. Hence, its focus has been on providing assistance to rural areas to (i) build or rehabilitate rural infrastructure, (ii) improve access to credit, and (iii) improve livelihoods through improving productivity, diversifying crops, and livestock rising in line with location-specific needs.

26. ADB is a lead development partner in the sector, providing \$1,078.1 million to Nepal during 1997–2007. About 74.2% (\$800.6 million) of this assistance was in the form of loans, 21.3% (\$230.3 million) in grants, and 4.5% (\$48.2 million) in TA. Agriculture received 21.1% (\$227.9 million) of the total assistance provided to Nepal—more than any other sector.

27. Within the sector, over 90% of the total assistance was allocated to three subsectors:²⁶ (i) agricultural production and marketing (36% or \$82.7 million); (ii) agricultural and rural sector development (32% or \$73.7 million); and (iii) irrigation, drainage, and flood protection (22% or \$50.6 million). The remaining 10% was allocated to livestock (9% or \$21.4 million) and protecting the environment and biodiversity (0.3% or \$600,000).

28. Loans accounted for over 90% of the support during the evaluation period. The Asian Development Fund (ADF) was the source of funds for one program loan and seven project loans. Four of these projects have been completed and the remaining projects are expected to be closed in the next few years.

29. Fifteen TA projects with a total cost of \$7.8 million were supported during the evaluation period. These consisted of eight preparatory TA projects for \$4.1 million and seven advisory TA projects for \$3.8 million.²⁷ Six advisory TA projects have been completed and two continue. The advisory TA projects were directed toward policy studies, institutional reforms, and capacity development for monitoring and evaluating the ANR subsectors. Most TA projects were supported by the Technical Assistance Special Fund, Japan Special Fund, and other funds

²⁵ ADB. 2004. *Country Strategy and Program (2005–2009): Nepal*. Manila.

²⁶ ANR is classified at ADB into the following eight subsectors: (i) agriculture production and markets; (ii) irrigation, drainage, and flood protection; (iii) water-based natural resources management; (iv) land-based natural resources management; (v) fishery; (vi) forestry; (vii) livestock; and (viii) agriculture and rural sector development. ADB. 2009. Staff Instructions for the Revised Project Classification System. *Compendium of Staff Instructions*. Manila.

²⁷ ADB. 1999. Technical Assistance to Nepal for Monitoring of the Agriculture Perspective Plan. Manila (TA 3247-NEP), amounting to \$150,000 was cancelled on 17 April 2000.

administered by ADB. Two advisory TA projects amounting to \$1.2 million were attached to loan projects in the livestock and rural infrastructure subsectors.²⁸

30. Nepal has been a beneficiary of grant project support since 2001. During this evaluation period, two grant projects amounting to \$19 million were provided, with ADF IX providing \$18 million and the Japan Fund for Poverty Reduction \$1 million. The grant projects were closely linked; Improving the Livelihood of Poor Farmers and Disadvantaged Groups in the Eastern Development Region was based on the general approach and objectives of the Commercial Agriculture Development (CAD) project.

31. A number of ADB's sector projects are cofinanced with other development partners. While these partners' funding is much smaller than ADB's loan assistance, their funds take the form of grants and can therefore generate considerable synergy because they can be channeled to fund crucial components that are not permitted under loan assistance. Under the CGIS project, the Canadian International Development Agency (CIDA) provided 8.5% of total funding to cover the cost of partner NGOs and consulting services to supplement the loan component. The following ADB projects were cofinanced with various other development partners: (i) Agriculture Sector Performance Review, financed by the Japan Special Fund; (ii) Improving the Livelihood of Poor Farmers and Disadvantaged Groups in the Eastern Development Region, financed by the Japan Fund for Poverty Reduction; (iii) CGIS project, a \$30 million ADB loan with a \$3.43 million grant cofinanced by CIDA; (iv) Decentralized Rural Infrastructure and Livelihood (DRIL) project, a \$40 million ADB loan with a \$0.7 million grant cofinanced by German development cooperation through GTZ and a \$1.9 million grant cofinanced by the Swedish International Development Agency.

32. ADB provided assistance for ANR research using the regional TA modality. Nepal is one of the beneficiaries of seven regional TA projects (listed in Appendix 1).²⁹ The funds for agricultural research and technology development were provided to the Consultative Group on International Agricultural Research (CGIAR)³⁰ amounting to \$7.1 million.³¹ TA-supported research aims to improve the productivity of staples and other crops, notably rice, wheat, and legumes, and the management of water, as well as to address food policy issues.³² The support provided through TA is not indicated in the country strategies and is not accounted as financial support provided to the country.

²⁸ TA 4397-NEP: Capacity Building in Rural Infrastructure Institutions, attached to ADB. 2004. *Report and Recommendation of the President to the Board of Directors on a Proposed Loan and Technical Assistance Grant to the Kingdom of Nepal for the Decentralized Rural Infrastructure and Livelihood Project*. Manila (Loan 2092-NEP); TA 2851-NEP: Third Livestock Development, attached to ADB. 1996. *Report and Recommendation of the President to the Board of Directors on a Proposed Loan to the Kingdom of Nepal for the Third Livestock Development Project*. Manila. Loan 1461-NEP, approved in 1996, is not included in the evaluation.

²⁹ The ANR research policy paper of 1995 articulated ADB's approach toward supporting research in this area to promote sustainable and inclusive economic growth in Asia and the Pacific. The regional TA modality has been used to operationalize the agenda through support, mostly to the Consultative Group on International Agricultural Research.

³⁰ The CGIAR, established in 1971, is a strategic partnership of countries, international and regional organizations, and private foundations supporting the work of 15 international centers. In collaboration with national agricultural research systems, civil society, and the private sector, the CGIAR fosters sustainable agricultural growth through high-quality science aimed at benefiting the poor through stronger food security, better human nutrition and health, higher incomes, and the improved management of natural resources.

³¹ This total supported research in five to six developing member countries in each regional TA project.

³² Five of these RETA projects have been completed, and two were expected to be completed in 2008. RETAs 5812, 5866, and 6067 were rated *successful* in their TA completion reports. The other completed TA projects do not yet have completion reports. A case study of a regional TA in Nepal is in Appendix 6.

C. Expected Results of Key Program Thrusts

33. Five main program thrusts can be discerned in ADB-supported interventions for the evaluation period: (i) sustainably improving agricultural production; (ii) sustainably increasing incomes and employment, particularly for poor, excluded, and vulnerable groups; (iii) commercializing the sector; (iv) advancing gender equality and social inclusion, and (v) strengthening government institutions. A summary of the expected results of the main program thrusts is provided in Table 3. ADB did not have projects in the environmental sector during the evaluation period, partly because environmental issues are subsumed under sustainable improvements in agricultural production and sustainable incomes.

Table 3: The Sector Program Thrusts and Key Macro and Sector Challenges Addressed

Sector Program Thrust ^a	Key Challenges Addressed
1. Sustainable improvements in agricultural production	Sustainably raising factor productivity in the sector through irrigation and other support; improving inter-sectoral ministry coordination Developing and establishing institutions to encourage private sector participation
2. Sustainably increasing incomes and employment, particularly those of poor, excluded, and vulnerable groups	Broad-based poverty reduction; sustainably raising factor productivity in the sector; confronting the exclusion issue Provision for improving livelihood support through the employment opportunities on-farm and off-farm
3. Commercialization of the sector	Commercializing the sector; improving the enabling environment; developing institutions
4. Advancing gender equality and social inclusion	Confronting the exclusion issue; strengthening the partnership approach; developing institutions
5. Strengthening the government institutions	Developing institutions and policies; and improving cross-sectoral interaction

^a Expected results of the five main program thrusts may be summarized as below, but it should be pointed out the five program thrusts are not water-tight compartments. For example, it is quite common for projects to have multiple objectives and for one of the thrusts to be used in the achievement of another. For example, it is quite common for projects to aim to sustainably increase incomes through specialization and exchange through the market mechanism, which entails agricultural commercialization.

Source: Independent Evaluation Department.

D. Review of Past Evaluation Findings

34. By the end of 2008 there were 39 evaluation reports, including project completion reports (PCRs), on agriculture in Nepal. Only 51% gave successful ratings. The success rate was low in processing agricultural production, at 38%, and in livestock, at 33%), but the irrigation subsector had a higher success rate of 77%. Looking at the trend in success rates, the projects approved in 1970s had a high success rate of 75%, and those approved in the 1980s had lowest, at 40%. Projects approved in the 1990s had a 55% success rate, indicating a slight improvement. In general, these success rates are higher than the ADB-wide average success rate for the sector of 43%.

35. The country synthesis prepared by the Independent Evaluation Department (IED) in 2000 reported that fewer than half of the sector projects were rated *successful* (48% *generally*

successful, 29% *partly successful*, and 24% *unsuccessful*).³³ The key factors affecting performance included (i) weaknesses in project preparation and design, (ii) lack of stakeholder participation, (iii) insufficient assessment of the institutional environment and the capabilities of executing agencies (EAs), (iv) weak supervision by ADB, and (v) inadequate assessment of policy and sector issues. Implementation delays were commonly cited as affecting performance. The average delay was 2.3 years, or a 48% overrun. Factors that contributed to these delays were related to procurement processes, limited institutional capacity, delays in the release of counterpart funds, and noncompliance with loan covenants. The evaluation identified several important issues including the need for (i) beneficiary and private sector participation, (ii) focus on poverty alleviation, and (iii) strengthening the institutional capacity of the Government and EAs for timely implementation.

36. The 2004 CAPE for Nepal raised serious questions about sector balance during 1999–2004. Noting that the lending program was meant to continue supporting the implementation of the APP, it observed that this focus seemed to have been lost to a certain degree. Overall, the 2004 CAPE concluded that sector assistance had contributed to the country's development as a whole and helped advance gender equity and environmental sustainability. Generally, the sector projects were found to have a good record of proactive design relevance and capacity development, but implementation efficiency was rated lower.³⁴

IV. PERFORMANCE ASSESSMENT AND RATING

37. The top–down (strategic and institutional dimensions) and bottom–up (project and program implementation) assessments are based on 17 projects, consisting of eight loans (one program and seven projects), seven advisory TA projects, and two grant investment projects. Nine of these projects have been completed and eight projects are at the various stages of completion. The program loan and three projects have been completed. All three that have PCRs were rated *successful*. Five TA projects have been completed, four rated *successful* and one rated *partly successful*. Both of the grant projects continue. Most of the continuing projects have been rated *successful* in project performance ratings. The list of projects by project category, completion status, and individual project rating is in Appendix 4.

A. Top–Down Assessment

38. The top–down assessment refers to a broad evaluation of ADB's assistance and was based on (i) ADB's strategic positioning of development assistance, (ii) contribution to sector development results, and (iii) the quality and responsiveness of ADB's institutional performance. This part of the assessment and its associated ratings were linked with the expected intermediate outcomes gauged against the indicators listed in ADB's strategic focus relevant to the SAPE, as stated in country strategies.

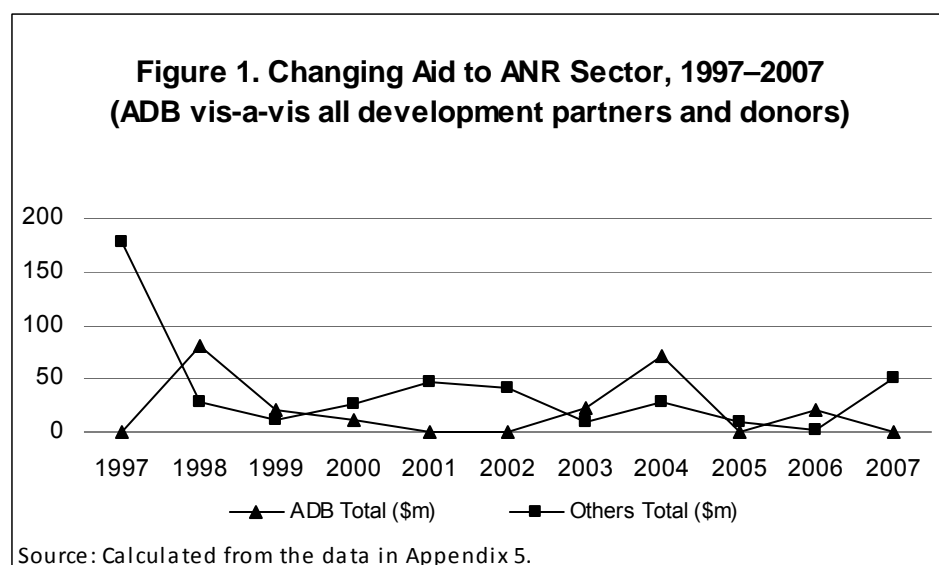
³³ ADB. 2000. *Country Synthesis of Evaluation Findings in Nepal*. Manila. Available: <http://www.adb.org/Documents/PERs/CS-NEP99.pdf>

³⁴ Of the 16 criteria used for evaluating the projects, design relevance and capacity development scored above average rating, and implementation efficiency and adequate governance were rated below average. The 2004 CAPE was conducted prior to the development of the IED guidelines and hence did not contain the ratings on performance.

1. ADB Sector Positioning and Relevance

a. Positioning of ADB Assistance

39. As indicated in the foregoing chapter, ADB's assistance strategies were aligned with Government plans and priorities for the ANR sector. Its assistance program was well coordinated with other development partners, mobilizing cofinancing in some cases. Appendix 5 provides details of the development partners' assistance to the sector over the 11 years of the evaluation period, while Figure 1 summarizes this information in graphic form.³⁵ The precipitous decline in others' assistance at the beginning of the evaluation period was such that, throughout the decade, ADB was by far the largest donor in the sector, and its assistance, totaling \$228 million, almost matched the \$249 million from all other development partners and donors combined. Moreover, the high periods of ADB assistance have tended to coincide with the low periods of other donors' assistance, such that ADB's contribution has smoothed out the flow of total assistance.



40. In addition to the volume of assistance to the sector, ADB has positioned its assistance to avoid crowded areas like community forestry and concentrate instead on otherwise neglected areas such as agriculture in general and livestock in particular. In terms of geographical area, ADB assistance has complemented that of other development partners. ADB has remained active in the eastern hills, while others have been shifting their assistance to the much poorer mid-western and far-western development regions. This decision of ADB is consistent with the evidence from the most recent NLSS 2003/04, which indicated that the eastern hill region of Nepal was the only one where poverty was actually increasing.

41. In 2006, ADB signed a memorandum of understanding with the World Bank and Japan Bank for International Cooperation to work closely to make aid more effective for all sectors in line with Paris Declaration commitments. These joint efforts indicate ADB's commitment to Nepal to foster cooperation among major development partners.

³⁵ Dollar figures relate to the year in which each new commitment was made, not to the spread of expenditure over time.

b. Achieving Inclusiveness and Gender Equality Goals

42. ADB's strategic frameworks emphasize inclusive development and gender equality in past country strategies and sector operation programs. Social inclusiveness in development also appeared as an important feature of development assistance in the conflict-ridden context in Nepal. Against this background, the CSP 2005³⁶ intended to assist more explicitly than before in fostering socially inclusive development by (i) addressing gender, caste, and ethnic discrimination through public policies; (ii) taking anti-discrimination measures in ADB-supported initiatives; (iii) building institutional capacity to promote gender equality; and (iv) providing targeted interventions for poor women. The gender equity theme has been sensibly expanded to address other forms of discrimination.

43. Gender concerns have been well incorporated in sector assistance, particularly in the livestock subsector.³⁷ Women's participation in decision making and livelihood generation has increased (e.g., to above 50% in the CLD and DRIL projects), and women's empowerment is reported to have been enhanced through targeted intervention such as the TA linked to Gender Equality and Empowerment of Women (GEEOW) project, a cash-transfer program. As a crosscutting project, GEEOW is expected to mainstream gender through multiple activities and to empower women and disadvantaged groups socially, economically, and legally. Progress on this has been somewhat disappointing.³⁸ Key grassroots project staff positions have yet to be filled. The project was already delayed by 18 months due also to the political and security situation.³⁹

44. Some specific examples of achievement in the water user steering committee include (i) greater decision-making roles for women in the committee (22% in key positions and 75% as general members); (ii) increased acceptance of women as committee leaders (some women chair the committee); (iii) increased inputs from women on decisions related to the selection of construction sites; and (iv) the active participation of disadvantaged caste and ethnic groups in the committees. There have been important changes in water user groups in terms of including diverse ethnic and lower caste groups, as well as regarding gender. *Dalits*⁴⁰ comprise 21% and ethnic groups 17% of these water user groups.⁴¹ Women dominate these groups, with 52% of membership. While much of the credit for this should be given to affirmative action by ADB-supported projects, a contributing factor may have been the feminization of Nepalese agriculture during the conflict. Supplementary Appendixes A–D document achievement toward gender equality goals.

45. All of the examples above reflect important progress against gender exclusion, but there seems to be confusion between “gender equity” and “gender equality,” with the ADB thematic

³⁶ A number of key achievements have been made in pursuit of gender and development objectives. The gender, caste, and ethnicity inclusion implementation plan was developed at NRM in 2006 with activities, outputs, and performance indicators. Important features are that the design and monitoring framework was revised to include a range of gender, caste, and ethnicity indicators. The monitoring mechanism for projects now includes the collection of data defined in the gender, caste, and ethnicity plan.

³⁷ ADB. 2008. *Gender-Based Results at Country Strategy and Project Levels*. Presented at the Gender External Forum Group Meeting. Manila. 15–17 October.

³⁸ ADB. 2008. *Back-to-office Report on the Gender Equality and Empowerment of Women Project Mission*. Manila (Loan 2143-NEP, 19 August).

³⁹ The Project was approved on 16 December 2004. The physical progress of the project is about 10% with 65% of the time elapsed.

⁴⁰ The term 'untouchable' or *Achhut* has been in the Nepali discourse from a very long period of time denoting those castes of Shudras, who are not permitted by upper castes to enter their houses, temples and other public. In last decades of 20th Century, the term *dalit* is used to replace the word '*Achhut*'.

⁴¹ The higher castes, Brahmin and Chhetri, have the highest representation.

area using the former and the CSP using the latter. The former is the preferred terminology, because it implicitly takes account of women's and men's different needs and roles in a society, rather than treating them alike.⁴² This confusion may be another reason why there is such heavy representation of women in areas like irrigation, where gender division of labor dictates that they play only a minor role. A related problem is that positive discrimination in favor of women may actually make their position worse, as is the case when microfinance loans are directed toward women, whose family may share in the assets created but leave the woman with sole responsibility for repaying the loan.

46. There is growing pressure from government institutions to foster inclusiveness in the development agenda. It was hoped that a strong institutional base had been developed and important lessons had been learned toward a culture of change, to build on from the progress made. It is difficult to verify if such fundamental changes have indeed taken place, though there is a general agreement that movement is in the right direction.

c. Synergy and Linkages in Sector Assistance

47. **Links across Sector Projects.** Generally there is weak coordination and linkage across the different subsectors, unless specific provisions are made for tackling this in project design. An example of the latter is the Community-Managed Irrigated Agriculture Sector (CMIAS) project, where the District Irrigation Office and the District Agriculture Development Office (DADO) worked synergistically and carried out their envisaged roles and responsibilities. A similar situation was observed in the DRIL project, in which the District Development Committee and DADO worked closely. Apart from these two projects, however, there is little evidence of such linkages and almost no synergy across subsector boundaries. Farmers and local authorities were to be consulted by DOLIDAR regarding trunk road planning, routing, and construction. This has not happened in any systematic way, and there have been few, if any, contacts between road engineers and agricultural extension or the farming community.

48. **Links within a Project with Multiple Executing Agencies.** Opportunities for cross-subsector synergy, even within a single ADB-supported project, are often squandered. For example, the CGIS project was designed to have two EAs to encourage cross-fertilization between agriculture and irrigation. Reports to the evaluation team indicated that this approach has not been an effective modality. Each EA tends to have complaints about its expertise being ignored by the other, and there is little communication. The delayed implementation of most of the projects can be considered indicators of inadequate linkages or coordination among EAs. Bimonthly meetings, though useful for general monitoring, often focused more on disbursement than performance.

49. **Links across Modalities of Sector Assistance.** There were limited synergies across different modalities of support (Appendix 6).⁴³ Regional TA projects for agricultural research supported national priorities that included support for food security concerns, conservation of native fruit species, capacity development, and socioeconomic and policy research. Most of the outputs have potential for immediate application and were complementary to the support

⁴² The difference can be illustrated using nutrition. Women and adolescent girls face greater problems with iron deficiency anemia than men, while men with very heavy seasonal workloads need more calories. Nutritional interventions based on equity take such factors into account, but those based on equality do not.

⁴³ The exception is the CGIS project, which liaise with the regional TA for the Development and Dissemination of Water-Saving Rice Technologies in South Asia, implemented by the International Rice Research Institute.

provided by ADB country operations.⁴⁴ However, the evaluation did not find any clear links across ADB support through the two different modalities. A major consequence of the lack of coordination is the poor scaling out of available technologies for impact. The regional TA projects were implemented directly from ADB headquarters, and NRM was not fully aware of the types of support provided through the regional TA modality. As many TA-generated outputs have potential for immediate use to improve production systems, some form of linkage is highly desirable. Moreover, some of the technologies disseminated through ADB projects could have been better targeted through improved coordination with the national research system. There are some institutional-level concerns here, as well as issues that may inhibit strengthening such linkages that need to be addressed. The establishment of the National Agriculture Research and Development Fund (NARDF) may have undermined the national system and diverted resources and opportunities that could have been used to strengthen NARC.⁴⁵

d. Promoting Environmental Sustainability

50. ADB's contribution to promoting environmental sustainability in sector assistance has generally been positive. It has (i) followed the safeguard rules on environmental impact of ADB supported projects, (ii) implemented suggestions from the environment impact assessment, and, most importantly, (iii) created an excellent example of good practice in this area. For example, during Crop Diversification Project preparation, the initial environmental examination indicated that the project's activities were likely to generate a net positive environment impact through increased cropping intensity, which would increase vegetative cover and improve soil conservation. Various leguminous crops that were to be adopted under the project fix nitrogen and would therefore help maintain soil fertility. Under the project, integrated pest management and integrated plant nutrition management are encouraged. The use of agricultural chemicals was seen as likely to increase, particularly for horticultural crops. The possible adverse environmental impacts were to be minimized through the provision of appropriate training and awareness programs for farmers.⁴⁶ However, key informant interviews and focus group discussions with DADO officials and NGOs in Banke and Bardia districts indicated that the use of agrochemicals has increased despite limited farmers' knowledge on their proper use.⁴⁷

e. Assessment of the ADB Sector Positioning

51. ADB's overall positioning for sector assistance is assessed *substantial* but on the low side. ADB's corporate objectives, development priorities, and strategic thrusts and elements,

⁴⁴ For example, the regional TA project under the International Maize and Wheat Improvement Center generated technologies in maize and wheat that would contribute to improving food security. These technologies seem to complement the support provided under the Crop Diversification Project.

⁴⁵ NARDF came into existence as a result of the covenant under the Crop Diversification Project. NARC challenged the establishment of NARDF in the Supreme Court of Nepal. The annual budget of NARC has been adversely affected, and the medium-term expenditure framework has made agricultural research under NARC lower priority than that of NARDF.

⁴⁶ Project implementing units regularly monitor environmental impact, including (i) changes in vegetative cover in the project area; (ii) testing soil nutrient levels; (iii) type, quantity, and method of use of chemical fertilizers; (iv) pollution status, including pesticide residues in wetlands; (v) the water level of local wells and ponds; (vi) density and discharge of STWs; (vii) number of farmers receiving environmental training; (viii) erosion and landslides; (ix) silt accumulation in farmlands; and (x) slope and forest conditions.

⁴⁷ The PCR of the Crop Diversification project (December 2007) summarized project environmental impact as follows: As expected, the processes of shifting to high-value agriculture have led to an increased use of pesticides and chemical fertilizers. To safeguard against the potential negative effects, the Project emphasized training farmers on the judicious use of agrochemicals. There was emphasis on increasing farmers' awareness of the use of integrated pest management and integrated plant nutrition management through farmer field schools to avoid environmental damage.

and the outcomes sought in sector objectives, are consistent with national development plans. ADB's sector assistance is closely matched to the ADB agenda on poverty reduction and promoting inclusive development. Projects implemented over the evaluation period were highly responsive to the concerns and needs of the socially marginalized, poor, and disadvantaged. In the support provided by ADB, gender equality and the elimination of social exclusion had high priority in the sector compared with other sectors.

52. There are some concerns about ADB's positioning in sector assistance, which offset some of its strong points. The first concern relates to the types of support classified under this sector, which do not directly contribute to development of agriculture e.g., the GEEOW project could be handled better under governance sector operations; and similarly, microfinance projects are much broader, covering rural livelihoods overall, not just focused on agriculture, and could best be handled under financial sector operations. In addition, it tries to cover all essential aspects and/or stages of agriculture and rural development. The lack of focus in sector assistance was one of the main concerns highlighted in the CAPE. 2004 Second concern relates to the lack of direct support provided to staple foods—cereals, pulses, and oilseeds—on which most of the poor depend for their livelihood.⁴⁸ This is a serious issue in a country where the target on hunger is furthest out of reach of all the MDGs and where more than half of children in rural areas are stunted from malnutrition. The third concern pertains to limited support provided to the development and dissemination of technologies in a country with one of the region's lowest rates of agricultural productivity growth. This is despite the infusion of new technologies in sector development having been identified as a priority area in the APP. Fifth, as Nepal is a landlocked country with porous border with India, its policies and trading activities with India have huge implications for its agriculture sector development. While the COS 1999⁴⁹ and CSP 2005 acknowledged these issues, but were not adequately addressed in the operational plans. Lastly, evidence was limited in ADB assistance strategies and programs of learning from past experience (paras. 34–36).

2. Contribution toward Sector Development

53. The extent of the development results achieved by ADB's assistance over the past 11 years is discussed under the three broad areas of ADB support to the Sector: (i) production, productivity, and poverty reduction; (ii) commercialization and diversification; and (iii) policy and institutional reforms. These represent the strategic focus of ADB's assistance, are sector-pertinent indicators as specified in the CPS 2005, and address the most crucial challenges identified in Chapter III (paras. 22, 33).

54. The 17 projects⁵⁰ included in sector assistance are distributed to four subsectors: (i) four projects (one loan, one TA, and two grants) supported agricultural production and marketing; (ii) two loan projects supported irrigation, drainage, and flood protection; (iii) three projects (one loan and two TA projects) supported livestock; and (iv) eight projects (four loans and four TA projects) supported agriculture and rural development. The highlights of achievements and some concerns are presented below by subsector to the extent possible under each of the

⁴⁸ The irrigation system in Nepal is mainly for rice, so the promotion of irrigated agriculture addresses some of the concerns.

⁴⁹ The COS 1999 noted that the development of economic linkages with neighboring countries would be an important component of the new strategy and committed to continuing to be proactive in promoting subregional economic cooperation among Bangladesh, Bhutan, India, and Nepal.

⁵⁰ Out of the 17 projects, 9 have been completed and others continue. Hence, some of the discussion on achievements refers to the expected outcome and impact upon the delivery of the planned outputs.

indicators stated above.⁵¹ The list of projects by different categories and more detailed discussion on achievements by subsector are in Supplementary Appendixes A–D.

a. Production, Productivity, and Poverty Reduction

55. **Agricultural Production and Productivity.** The Crop Diversification Project was implemented in 12 districts⁵² over the past 6 years. In addition to contributing to increases in the production and productivity of staple crops, the project diversified the agricultural production systems by promoting the cultivation of such secondary crops as vegetables and oilseeds. Except for area under oilseeds, the PCR estimated an increase in area and productivity of secondary crops in these districts (Table 4). These activities helped increase average household income by \$77 in the hills, 15.4% below target, and \$102 in the *Terai* 43.7% above target. Further, it helped generate 14,963 person-years of incremental employment, or 97.8% of the target. Although it would not be accurate to attribute all of these improvements to ADB interventions, it must be acknowledged that ADB initially emphasized and subsequently demonstrated the potential of such secondary crops in these districts.⁵³

Table 4: Area and Yield of Key Cereal Crops in Crop Diversification Project Districts, 2001/02 to 2006/07

Items	Area (ha)			Yield (kg/ha)		
	2001/02	2006/07	Annual Growth (%)	2001/02	2006/07	Annual Growth (%)
Maize	101,995	112,179	1.7	1,729	2,065	3.8
Potato	12,288	15,161	3.8	10,244	11,330	2.2
Pulses/Legumes	92,196	96,508	0.2	755	813	0.9
Oilseeds	73,818	66,362	(3.7)	719	698	0.3
Vegetable	21,652	23,684	1.0	10,658	12,482	3.7

ha = hectare, kg = kilogram.

Source: Statistical Information in Nepalese Agriculture, MOAC, Different Years.

56. **Irrigation, Drainage, and Flood Protection.** The PCR of the recently completed CGIS subsector project provided some project-specific examples of the benefits. For example, the project is reported to have contributed to increasing cropping intensity from 145% to 224% (switching from single- to double- and even triple-cropping), using irrigation to increase cultivated area by 54,350 ha, benefiting 65,220 households, and increasing productivity⁵⁴ by improving the supply and control of water. The net effect was to increase average household income by 35% in the project area, contributing 268,000 tons to total crop production per annum. The CGIS project is credited with such increases at a time when national statistics indicated stagnating or decreasing household incomes from crop production.

57. This project also addressed several key subsector challenges regarding poverty: (i) the limited access of poor and marginal farmers to irrigation, (ii) the lack of access to timely credit and other service facilities, and (iii) limited income and assets to invest in irrigation. The

⁵¹ The CAD project and Grant 9101 are in their first year of implementation, too early to expect measurable progress toward outcomes or impact.

⁵² Achham, Baitadi, Banke, Bardiya, Dadeldhura, Dailekh, Dang, Doti, Darchula, Kailali, Kanchanpur, and Surkhet.

⁵³ Nationally the area under secondary crops has increased from 302,000 ha to 314,000 ha, and the annual growth rate for maize, potato, and vegetables has been substantial.

⁵⁴ The PCR reported an increase in productivity of more than 100%.

approach of promoting water users' groups, for example, is generally seen as a useful way to expand small farmers' use of STWs for irrigation in the *Tera*⁵⁵. This approach brought the private sector, microfinance institutions (MFIs) and other stakeholders together to facilitate wider access to STWs. During the focus group discussions, the beneficiaries stated that they valued group support and the services provided in the project.

58. **Livestock Subsector.** ADB is recognized to have significantly contributed to poverty reduction through the development of the livestock subsector (Supplementary Appendix C). For the most part, ADB has been the sole development partner continuously supporting the livestock sector for more than 15 years. The NLSS 2003/04 reported that, of the three main sources of agricultural income—crop production, agricultural wages, and livestock production—livestock production was the major contributor to increases in household incomes.⁵⁶

59. The continuing CLD project and its associated TA⁵⁷ are included in this study. There are early indications of encouraging results from the (i) promotion of goat pass-on scheme (in which the recipient of a goat passes its first offspring to a neighbor) focusing on the very poor, deprived, and disadvantaged; (ii) promotion of private dairies and other livestock enterprises; (iii) high-altitude pasture development; and (iv) forage crop production. The goat pass-on program is considered a successful intervention for pro-poor economic development and has been replicated by other development partners' projects, as well as local and national NGOs. Increased and improved forage production⁵⁸ was reported to have contributed to increased milk production. Many small dairy farmers have organized themselves into milk cooperatives to sell surplus milk.

60. ADB assistance to other subsectors has contributed to this subsector's development. The Rural Microfinance Development Centre (RMDC) provided NRs154 million (\$2.14 million) to livestock producers through 19 MFIs. Moreover, poor and smallholder farmers' access to veterinary and livestock development services has increased following the training and equipping of para-veterinarians in ADB-supported projects. A community livestock insurance scheme was introduced to address the risk associated with investment in such large animals as buffalo and cattle. However, the scheme has yet to be expanded in areas with potential and become a useful tool to encourage poor and smallholder farmers to invest in large animals.

61. Despite these successes, the evaluation identified two significant problems in efforts in the livestock sector for poverty reduction. First, cases were reported of discrepancies in the distribution of benefits between mainstream groups and others. This is despite the project's generally being reported to be performing well in terms of adopting inclusiveness toward marginal groups. Nevertheless, CLD project has clearly taken an important first step toward inclusiveness. The next and more difficult step would be to tailor interventions more closely to the needs of the poor and disadvantaged. The second problem pertains to discrepancies and

⁵⁵ Centre for International Studies and Cooperation. 2007. *Community Groundwater Irrigation Sector Project, Documentation and Lessons Learnt*. Kathmandu.

⁵⁶ World Bank, DFID, and ADB. 2006. *Nepal Resilience Amidst Conflict*. Kathmandu.

⁵⁷ ADB. 2004. *Technical Assistance to the Kingdom of Nepal for Promoting Pro-Poor and Gender-Responsive Service Delivery*. Manila (TA 4353-NEP, \$200,000, approved 7 July). Available: <http://www.adb.org/Documents/TARs/NEP/tar-nep-38059.pdf>

⁵⁸ The project documents reported that the emphasis on a forage-based production system has contributed to the increase in the cultivation of forages by an additional 9,926 ha. A total of 1,500 contract farmers are involved in forage seed production, but their productivity remains low.

duplications regarding the benefits received.⁵⁹ This is because of the lack of coordination in implementing the goat pass-on program.

62. **Agricultural and Rural Sector Development.** The Second Agricultural Program loan led to the deregulation of fertilizer and STWs and the phasing out of subsidies for them. Debates continue on the appropriateness of removing subsidies, which made key supports for agricultural productivity growth and competitiveness less affordable to poor farmers. Evidence exists, however, that the outcomes of these interventions have been positive in terms of liberalizing markets, involving the private sector, increasing supply, and improving the accessibility and application of fertilizer.⁶⁰ A study carried out by the Centre for Natural Resources Analysis, Management, Training and Policy Research⁶¹ estimated that fertilizer application had increased from less than 30 kilograms of plant nutrients per hectare before deregulation to 58–60 kilograms per hectare after deregulation.⁶²

63. Similarly, the limited budget allocations for subsidizing STWs had constrained their supply. The conditionality of the Second Agricultural Program was instrumental in creating a subsidy-free regime for STWs. This promoted the private sector and eased the supply constraint. The subsequent ADB CGIS project built on this policy reform by making it possible for smallholder farmers to adopt STW irrigation through water users' groups, which brought in the private sector and MFIs as partners. ADB's role in providing a useful model for STW expansion in the *Terai* was noted in a subsequent evaluation. A focus group discussion with the targeted beneficiaries in Jhapa District found that participants see greater value in improved access to better extension and other complementary services than in a subsidy for STWs toward increasing agricultural production area and productivity. The main constraints were identified as inadequate supplies of other inputs such as seeds and improved technologies, as well as inadequate coordination between irrigation and agricultural line agencies. The support to agricultural research in country operations has been minimal, except for client-oriented research provided indirectly through NARDF.

64. Another project in this subsector, the Rural Microfinance Project, facilitated the extension of microcredit to women and vulnerable groups. Achievements have exceeded targets. The PCR reported that the economic internal rate of return on investments in high-value crops was 26% and on dairy buffalo was 57%. These achievements have contributed to an increase in household incomes ranging from \$61 to \$228.⁶³ A general impact assessment of microfinance projects in Nepal that included the Rural Microfinance Project indicated that investment in productive activities increased by 219% over a 3-year period. Households with sufficient food all year increased from 31% to 85%, while those with access to safe drinking water grew from 29% to 67%.⁶⁴ Targeted beneficiaries reported that they generally felt empowered by the

⁵⁹ ADB. 2008. Aide Memoire of Review Mission: Loan 2071-NEP: Community Livestock Development Project. Manila (14 July).

⁶⁰ These are (i) the *Fertilizer Use Study*, carried out by Agrofood, USA for MOAC in 2003, and (ii) the ADB *Agriculture Sector Performance Review* carried out by ANZDEC of New Zealand for MOAC. ANZDEC is a New Zealand-based international consulting and project management firm focusing on sustainable development and management of renewable natural resources and economic planning.

⁶¹ Centre for Natural Resources Analysis, Management, Training and Policy Research. 2006. *Impact of Fertiliser Deregulation Policy* (Final Report). Kathmandu.

⁶² The project performance audit report of IED estimates an average annual increase in foodgrain production over the Second Agricultural Program period to be in the region of 190,000 tons, as a direct result of this policy change. While not all of that can be attributed to increased fertilizer use, it would be reasonable to conclude that it had made a significant contribution.

⁶³ ADB. 2008. *Project Completion Report on the Rural Microfinance Project in Nepal*. Manila (aide memoire).

⁶⁴ RMDC. 2008. *Impact of Microfinance Services on the Clients of RMDC's Partner Organizations*. Kathmandu.

economic independence facilitated by the project. In the DRIL project, beneficiaries noted important intergenerational effects from road access—which, they said, combined with income gains, would permit them to send their children to school and thereby improve their long-term prospects of escaping poverty.

65. There are, however, a number of concerns regarding MFIs in general and rural microfinance projects in particular. First, in the case of the Rural Microfinance Project, indications are that the ultra poor may not be using loans for agriculture or livestock because repayment must begin 1 month after disbursement. Few agricultural enterprises in Nepal yield a return so quickly, and those that do, such as large milking animals such as buffalo, tend to require capital investment too high for the ultra poor, as the typical MFI interest rate is more than 20% per annum. Second, MFIs in general concentrate their efforts in the *Terai* and the more accessible hilly areas and have not been able to reach the ultra poor in remote areas. Third, some borrowers, mainly the poorer ones, use a significant portion of their loans for daily expenses instead of investing in new businesses as planned. Borrowers were found to have taken loans from a second MFI to repay the first, using some of the new loan for consumption. In this way, the poor become trapped in a cycle of borrowing and repayment. While only some microcredit borrowers fall into this category, these examples highlight how poverty itself can be a hindrance to the productive use of loans. Fourth, while the volume of savings generated is a good indicator of successful investment, microfinance programs in Nepal have largely failed to help borrowers manage their savings.⁶⁵

b. Commercialization and Diversification

66. ADB has been at the forefront of promoting the commercialization and diversification of agriculture. In pursuit of these objectives, ADB has supported programs to increase the production of diverse secondary and high-value crops as discussed above, supported the establishment and reformation of policies and institutions, and introduced new approaches to strengthen public-private partnership. A number of alliances have been formed between ADB-supported projects and private firms for improving market linkages and reducing transaction costs for goods and services between farm and market. Others have aimed to establish links between farmers and agro-enterprises and facilitate market exchanges by improving demand for produce and the reliability of its supply. A number of projects supported the development of local private service providers through training and the provision of start-up capital and equipment.⁶⁶ The CAD project has constituted the Commercial Agriculture Alliance, which is a new mechanism for agriculture development led by the private sector.

67. The general focus, however, has been on the increased production of cash crops, with only limited attention given to other aspects of commercialization, such as ensuring the quality of products through value addition. The comparative advantage of domestic produce over imported goods in terms of price, accessibility, quality, and safety issues were also left unaddressed by subsector assistance.⁶⁷ Considering the number of favorable regional and international trade agreements such as South Asia Free Trade Agreement, and Nepal's World Trade Organization (WTO) membership, the subsector assistance did not include programs to

⁶⁵ Xanthine Basnet. 2007. *Microcredit Programs and their Challenges in Nepal*. Salem College:Winston-Salem, NC.

⁶⁶ Inputs include mechanics to provide operations and maintenance services for STWs in the CGIS project areas and the training and initial equipping of para-veterinarians by the CLP project.

⁶⁷ Koirala, Govind P., Ganesh B. Thapa, and Ganesh R. Joshi. 1995. Can Nepalese Farmers Compete in the Domestic Market? *Winrock International Policy Analysis in Agriculture and Related Resource Management Research Report Series*. 34. Kathmandu.

take full advantage of these opportunities.⁶⁸ The support provided for policies and institutional developments toward the commercialization of agriculture is discussed in paras. 71–74.

68. **Livestock Subsector.** The participation of the private sector in marketing livestock products is increasing, with private and cooperative dairies coming to dominate the market. The poultry industry is almost entirely privately owned. Private dairies have been successful in influencing the Dairy Development Corporation about consulting them when setting the milk price, which has encouraged private sector development as the corporation now purchases milk from farmer cooperatives. The CLD project supported the establishment of 78 retail milk centers (27% of target) and 28 milk-chilling centers (76% of target) and trained 805 livestock market contractors (67% of target). This project has given continuity to the Third Livestock Development project's⁶⁹ initiatives in meat production and hygienic meat processing by supporting 13 small slaughter sheds or slabs (26% of target) and 88 hygienic meat shops (27% of target). Ten live animal markets have been established or strengthened (38% of target).⁷⁰ This project has also supported 288 enterprises (27% of target), creating 2,449 jobs (48% of target). The privatization of the Pokhara Milk Supply Scheme has been a major accomplishment.⁷¹ It is of concern, however, that many targets are far from having been met despite almost 70% of the project's time having elapsed.

69. The severity of the so-called "milk holiday"⁷² problem for dairy farmers has been significantly reduced mainly by enhanced private sector investment and its increased capacity. Almost 200 private dairies are reportedly operating in the country at present. Besides private dairies, 1,564 milk producers' cooperatives are now operating in 59 districts.⁷³ While these corporations are the main sources of fresh milk for the Dairy Development Corporation, they also sell milk to private dairies.

70. Progress toward commercializing the poultry industry has been encouraging. It has helped meet the growing demand for meat and eggs in urban areas. The CLD project has adopted an innovative initiative to support private institutions by adopting a two-pronged approach. This involves working with large private dairies and meat-processing plants while at the same time supporting small producers. ADB's livestock sector assistance is consistent with the Government's concerns for meeting the needs of the poor by effectively linking production and marketing, job creation, and meeting urban market requirements for meat, milk, and eggs from domestic suppliers.

c. ADB Support to Policy and Institutional Reforms

71. The establishment of nine key sector and subsector policies and of five institutions has been achieved through program and project loans, advisory TA, and policy dialogue with the

⁶⁸ International Institute for Sustainable Development. 2008. *Ensuring Development Accession of Least-Developed Countries to the WTO: Learning from Nepal*. Manitoba.

⁶⁹ This project is not included in this evaluation study.

⁷⁰ ADB. 2003. *Report and Recommendation of the President to the Board of Directors on a Proposed Loan to the Kingdom of Nepal for the Community Livestock Development*. Manila (Progress Status)

⁷¹ The Pokhara Milk Supply Scheme of the Dairy Development Corporations became Sujal Dairy after privatization. The processing capacity of this scheme has increased from less than 10,000 liters/day to 100,000 liters/day with the installation of a skim milk powder plant. It has capacity to produce 7.5 tons of milk powder per day and the dairy has yet to operate at full capacity. When it happens, the milk holiday—or refusal to buy milk in the glut season—is likely to end in Kaski and neighboring districts.

⁷² Refers to days milk is not sold because of limited market accessibility rather than supply constraints.

⁷³ Central Dairy Cooperatives Association of Nepal; Nepal Annual Report FY 2065/66; and Nepal Dairy Development Board.

Government. These achievements are clearly attributable to ADB assistance. A complete list of these policies and institutions is provided in Appendix 7. The highlights are provided below.

72. The APP, National Fertilizer Policy of 2002, NAP 2004, and National Microfinance Policy 2005 are the key government policies supported by ADB. These policies paved the way for many subsequent reforms. Details on APP's achievements and limitations are discussed in chapter II (paras. 16–20). They largely promoted participation by multiple stakeholders in the sector's development. In particular, emphasis was placed on promoting public-private partnership. For example, the National Fertilizer Policy was based on a set of key principles: (i) that the participation of the private sector is indispensable to improving the availability of fertilizers and promoting increased demand for them and (ii) that all actors, including the public sector, cooperatives, and the private sector, should have equal opportunity in the fertilizer trade. In 1997, this broke the AIC monopoly in the supply of fertilizers and opened the way for expanded fertilizer use.

73. Similarly, the NAP broke the monopoly of public sector extension by announcing that (i) a competitive agricultural research and development system would be promoted with the participation of the private sector and nongovernment organizations and that (ii) agricultural research and development would be financed through a new competitive fund, NARDF, which would be open to public, private, and NGO applicants. In addition, the NAP proposes several strategies for increasing agricultural productivity, including (i) supporting small and marginal farmers (those with less than 0.5 ha of land, minimal irrigation and membership in deprived and vulnerable groups such as *Dalits* and agricultural laborers and (ii) developing competitive and commercial smallholder farming systems. The Crop Diversification Project supported the Government's policy and institutional reform measures for increasing agricultural productivity as proposed in the NAP. The National Microfinance Policy gave legal recognition to the provision of multiple providers of microfinance. It also paved the way for the formation of the National Microfinance Fund and the RMDC described above in chapter II (para. 20).

74. Conditionality in various loan projects has been instrumental in implementing ADB-supported policies. The withdrawal of the fertilizer and STW subsidies is well documented. Other examples include the creation of NARDF, introduction of private service providers in agricultural and livestock extension programs, and privatization of the Pokhara Milk Supply Scheme. Privatizing the scheme created the new, privately owned Sujal Dairy, which established a skimmed milk plant with increased processing capacity. Moving beyond conditionality, the CLD project supported Department of Livestock Services (DLS) efforts toward strengthening capability in community development and extension work for monitoring, evaluation, and market surveillance. This promoted the Government's role as a facilitator and quality controller in subsector development rather than competitor with private veterinarians and paravets.⁷⁴

75. Increasing the number of partners does not necessarily improve the effectiveness of an intervention. For example, the CGIS project is reportedly the first groundwater project in Nepal to work through a complex alliance of partners, including government agencies, NGOs, credit institutions, and private suppliers. While the project design expected the stakeholders to function in public-private partnerships, most were unaccustomed to them. They did not function smoothly, not only delaying loan processing, approval, and release, but preventing private traders from developing attractive packages of technologies to offer to farmers. Nevertheless, public-private partnerships have advantages such as maintaining transparency in project

⁷⁴ Paravets are private providers of front-line veterinary services.

budgets and operations, particularly in district and village subprojects. Therefore, the involvement of multiple stakeholders should not be discouraged solely on the grounds that proper coordination requires more effort.

76. Further encouraging results have been achieved through policy dialogue with the Government in several areas of the subsector, such as the establishment of DOLIDAR. The formulation of the Local Infrastructure Development Policy 2004 and promulgation of the Financial Intermediary Societies Act 1998 (amended in 2002) provided legal status to NGOs registered as financial intermediaries and allowed them to collect savings from group members. The establishment of RMDC as a wholesale lender was a direct result of the policy dialogue.

77. Most policy makers appreciate ADB's contribution to policy and institutional reforms. However, they were concerned regarding their sustainability and sometimes expressed worries about weak ADB support in responding to newly emerging problems, as in the fertilizer trade.⁷⁵ There was also a tendency not to directly support these major policies and institutional changes in subsequent projects.

d. Assessment of Contribution toward Sector Development

78. ADB's contribution to development results is assessed *substantial*. ADB purposefully provided support to neglected regions and subsectors, focusing on poor and marginalized groups. Hence, poverty reduction has been greater than the overall impact. Attributing the development results to ADB is difficult even at the district level, let alone nationally.⁷⁶ The effects of several factors and interventions by multiple agencies are cumulative, sometimes synergistic, and almost impossible to disaggregate. For example, local ADB-supported projects have made significant contributions, but—given the huge fluctuation in agricultural growth rates around a basically flat trend that was observed over the evaluation period (Appendix 2, Figure A2.2)—it would be difficult to argue that they have had a significant macroeconomic impact on agricultural growth rates. Similarly, this same macro-versus-micro picture emerges with respect to poverty reduction. ADB-supported projects have reduced poverty among those included in project beneficiary groups because of (i) the inclusiveness of the group formation process and (ii) the income opportunities generated. However, while the poverty reduction trend has been positive nationally and the inter-year fluctuations relatively minor, the progress made toward meeting MDG 1 is largely attributable to remittances. In the case of livestock, on the other hand, ADB—as almost the sole and the only long-term development partner—has made a clear, significant, and attributable contribution to subsector development and income growth.

79. However, as ADB is a lead development partner in the sector, some sector outcomes are widely attributed to ADB. Some pivotal contributions were made in the development of an enabling environment in agricultural development. ADB's long-term support to the livestock subsector has greatly boosted private sector participation, particularly in the dairy and poultry industries, as has its contribution through Second Agriculture Program Loan (SAPL) to the liberalization and de-subsidization of fertilizer and seed distribution and STW installation. ADB-supported projects have promoted the adoption of participatory approaches and institutional pluralism in service delivery, initially through its long-standing relationship with the Department of Livestock Services, an approach that the Ministry of Agriculture and Cooperatives adopted in whole.

⁷⁵ Problems with regard to fertilizer trade include the increased illicit import of low-quality fertilizers through informal cross-border trade, the Government's inability to test the quality of fertilizers because of physical and manpower constraints, and the imbalanced use of fertilizers due to a decline in the import of potassium fertilizers.

⁷⁶ ADB is not the sole provider of development assistance to any of the districts in Nepal.

3. ADB's Institutional Performance

a. Development Partner Coordination and Harmonization

80. ADB's role as the lead development partner is generally appreciated, giving ADB considerable policy leverage on policy and contribution to its formulation. ADB supported the formulation of the Interim Development Plan (2008–2010) for sector development.

81. Key government officials and other development partners and donors appreciated ADB's role in coordination and harmonization.⁷⁷ ADB informally cochairs with MOAC the Nepal Donor Forum for the agriculture and rural development thematic group and rural water supply groups.⁷⁸ The forum brings together the Government, development partners, and donors to share sector-specific program plans, information, and ideas. All government and donor agencies active in agriculture and rural development are members of the first thematic group, which started as donor coordination group in 2000 with ADB as the chair. From 2004 to 2007, ADB and the MOAC cochaired the group, and now the group is formally chaired by MOAC; ADB's role is to help MOAC organize the meeting on time every 3 months, control the quality of meeting minutes, and circulate them to the members on time.

82. Further, ADB positioned its assistance to avoid crowded areas like community forestry and concentrate instead on otherwise neglected areas such as agriculture in general and livestock in particular. Similarly, in terms of geographical area, ADB assistance has complemented that of other development partners. ADB has remained active in the eastern hills, while others have been shifting their assistance to the mid-western and far-western development regions.

83. ADB's contributions to policy and institutional reforms have facilitated the process of coordinating development partners' activities in sector development. The ADB-supported APP was subscribed to by all political parties and continues to have strong Government ownership. This has helped development partners and donors to plan their assistance and coordinate their efforts. The establishment of DOLIDAR provides another example of strong Government leadership in improving donor coordination. Before the establishment of this department, many donors' support to rural road programs was not coordinated. For example, the Department for International Development (DFID) of the United Kingdom had its Rural Access Program, and the World Bank had a separate Rural Access Improvement and Decentralization Project. Now, as the implementing agency for all of rural road projects, DOLIDAR plays a strong coordinating role.

84. ADB country strategies and their updates, and the sector projects are prepared in close consultation with other development partners and donors to avoid duplication and enhance development effectiveness. These coordination and consultation efforts have been enhanced by the ongoing process of decentralizing management responsibilities to NRM. The present evaluation found ADB's influence to be substantial, as exemplified by the inclusion of several key concepts and intervention approaches from the CAD project in the World Bank's pipeline project on Agriculture Trade and Commercialization. Likewise, the Agriculture Perspective Plan Support Project supported by DFID had considerable influence on the ADB-supported CAD

⁷⁷ ADB was a key development partner in the formation of donors and development partners group to promote the Paris Declaration Commitments on Aid Effectiveness.

⁷⁸ Thematic workshops and seminars have provided platforms for development partners to have discussions and share experiences. One-to-one meetings among staff are frequent and constitute the most common informal means of ensuring linkages.

project. In short, the evaluation found linkages among ADB and other development partners to be taking place through different mechanisms and tools. However, during the discussions, most of the donors agreed that donor coordination is still inadequate and that they need to work together to strengthen it further.

b. Factors Affecting Implementation

85. **Internal Consistency.** There are reasons for concern about the internal consistency of ADB's assistance in the sector. The most important one arises from contradictions between two program thrusts: (i) sustainable improvements in agricultural production and (ii) advancing gender equality and social inclusion. The first is an economic objective, but the second is social. If an agricultural development intervention has the objective of sustainably improving agricultural production, the prospect of success will be maximized if the beneficiaries are better-off farmers, as they have the land, investment and working capital, status, and social and political contacts to accept and reduce risk. Women and excluded groups in generally have limited assets, so that if the purpose of a project is to improve the lot of previously marginalized and excluded groups, it has to be accepted that progress toward other thrusts, such as rapidly increasing agricultural productivity, will be slowed. This is not to say that one aim is more important than the other, but merely to point out that compromises may have to be accepted while pursuing different objectives. In particular, the present practice of evaluating projects according to economic criteria such as cost–benefit ratios does not reflect the significant social engineering component that many projects now have.

86. **Project Design.** Design issues are often project-specific,⁷⁹ but some cut across all projects. In a number of cases, elements of project design seem to have been based on an incomplete understanding of the responsibilities of EAs. Where this type of issue has emerged, it seems to have arisen from inadequate institutional analysis during the design phase. For example, the CMIAS project introduced a multi-stakeholder approach to implementation, but some of these stakeholders are either weak or nonfunctional. Another consequence of inadequate institutional analysis was failure in some cases to appreciate budgetary constraints. For example, the DRIL project budget is based on the assumption that district development committees could provide 10% of funds. District authorities in Karnali Zone observed that project design had not factored in the limited resources of such remote mountainous districts as Karnali and Rapti. Adopting a “one size fits all” approach does not work.⁸⁰ Further, some of the project design flaws can be linked to unrealistic and overoptimistic assumptions regarding the environment in which the projects were to be implemented.⁸¹

87. Implementing agencies generally argue that ADB does not agree to major changes in design once projects are approved. For example, under the CGIS project, many STW user groups and EA officials in eastern Nepal wanted to switch funding from roads to STW electrification, but ADB would not accept this change. However, there are several instances in

⁷⁹ There were several lapses in the CGIS project design that demand careful attention in future project design. These include (i) high cost estimates for STW development, (ii) overambitious targets set for the construction or improvement of farm-to-market roads, (iii) inappropriate assessment of the number and capacity of participating finance institutions in rural areas, and (iv) the under targeting of irrigated area coverage. Likewise, the CMIAS project does not have a component on on-farm water management in its design.

⁸⁰ This would be realistic for the richer district development committees, but it is not the case in poorer ones in more remote areas. Hence an unintended consequence is the risk of biasing projects against the poorest areas.

⁸¹ An example from the GEEOW project illustrates the case. Recognizing that grassroots staffing of the Women's Development Department is inadequate to serve project purposes, a provision was made for staff to be hired locally on a contract basis. However, once this hiring process commenced it soon became clear that there was an acute shortage of qualified people in the locality, so many positions could not be filled.

which ADB has been quite flexible after a project has been launched. It appeared that what some regard as inflexibility on ADB's part is more unwillingness on the part of others to abide by agreements. Greater consultation during design would help avoid some of these problems.

88. Implementation Delays. Delay in project implementation was a recurring theme in almost all projects, causing low disbursement. The delays occurred throughout the project cycles, seriously limiting the development effectiveness of the support provided. Often crucial projects activities needed for effective implementation tended to start too late in the project cycle. Some of the delays are endemic in Government and ADB procedures and, to some extent, beyond the control of projects. Some of the generic factors that have contributed to project delays include (i) the lack of built-in incentives to reward better performance from either the Government or ADB, (ii) project EA officers sometimes having other departmental responsibilities that dilute their project inputs, and (iii) frequent transfers of project EA and ADB staff and the recurrent disruption in project implementation and loss of institutional memory. Grant-funded projects provide greater flexibility in resource allocation. ADB could make greater use of well-reputed NGOs to facilitate project implementation.

89. Some project-specific examples include (i) delayed implementation of the decision to withdraw the capital cost subsidy on STWs, which led farmers to believe that this decision might be reversed, making them unwilling to take loans to pay the entire cost of STWs; (ii) delayed development of the DOI's institutional development strategy and action plans based on the National Water Resource Strategy and Irrigation Policy 2003; (iii) delayed recruitment of consultants for the CMIAS project and others; and (iv) delays due to multiple partner involvement in project implementation, including cofinanciers. Not all of these delays were foreseeable, but some were, and project design should have taken them into account.⁸²

c. Project Monitoring and Supervision

90. Most projects under evaluation have officers assigned to monitoring, but, with important exceptions, this is not a strong feature of project implementation. Problems generally were not identified nor corrective action taken before they became major issues.⁸³ Many of the problems arose from the conflict, when government staff could not safely go to the field for monitoring and supervisory work. However, there were other issues, not least that government officials tend to monitor inputs only and, to some extent, outputs only.

91. There were specific problems of deficient monitoring when more than one EA was involved in project implementation. Even where the lead EA does take strong ownership of a project, other stakeholders may not share that enthusiasm. For example, in the CGIS project, DOI demonstrated its sense of ownership in a range of ways (e.g., making strenuous efforts to establish the project management unit on schedule), but DOA did not depute its own staff to the

⁸² Project-specific delays during implementation include (i) the late preparation of the district irrigated agriculture development strategies; (ii) the delayed preparation of the irrigation inventory under the CGIS project; (iii) delays in carrying out irrigation feasibility studies and the detailed design of subprojects; (iv) very restrictive subproject selection criteria in irrigation that imposed further delays; and (v) widely reported delays in loan processing and approvals by Participating Financial Institutions. In the CLD project, one of the reasons for low take-up of loans is the delay that occurred in preparing operational guidelines, which had not been issued after nearly 2 years of project implementation. Also regarding the CLD project, there were problems, mentioned earlier, regarding the late appointment of key staff, which is partly attributable to the Food and Agriculture Organization's insistence on being the sole service provider.

⁸³ Limited and declining sector capacity in ADB at headquarters and in NRM is also cited for problems being left unidentified for too long.

unit. As a result, the component for a mobile support and monitoring team program had to be dropped, presumably damaging program implementation.

d. Staff Resources for Delivering Sector Assistance

92. ADB's ability to effectively provide assistance to the Government in sector development has been declining over the years along with the number of sector specialists. Out of six projects indicated in the current CSP, one has been canceled, the implementation of another two has been delayed, and the status of a fourth is uncertain mainly because of capacity constraints. NRM has only three international professional staff, including the country director. Only one out of 12 national officers at NRM is fully dedicated to administering delegated agriculture projects. NRM often finds it difficult to participate in regular field missions or to make substantive contributions to sector policy and planning discussions with other development partners and donors. Many crucial policy and institutional reforms stipulated by sector assistance do not get adequate support or supervision.

93. Limited capacity has caused a general decline in the quality of supervision and monitoring of agricultural assistance. In general, the support provided by review missions and NRM has been timely and client-responsive, and, in some cases, missions have played a key role in addressing urgent and difficult issues.⁸⁴ However, with project officers managing several projects, monitoring has tended to be limited mainly to inputs and disbursement-related issues rather than addressing the development effectiveness of sector assistance.

e. Allegations of Corruption

94. Corruption remains a key governance challenge despite the enactment of numerous laws and the establishment of anticorruption agencies since 2002.⁸⁵ The World Bank Institute reported that corruption in Nepal has worsened since 1996,⁸⁶ and Transparency International gave Nepal a score of 2.5 (less than 3 is "corruption rampant").

95. There are widespread complaints of corruption in public service arising from poor accountability and transparency. Twelve allegations of corruption were reported to the Integrity Division of the Office of the Auditor General of ADB on the projects under evaluation.⁸⁷ Most of the allegations were of bribery, irregular ranking for technical assessment in bidding process, misrepresentation and unfair selection processes, and exclusion and/or manipulation by interested parties. At the time of this evaluation, 11 of the cases had been closed mainly because of (i) the lack of evidence to substantiate the allegations, (ii) inability to determine if misconduct had occurred, and (iii) some allegations not falling under the jurisdiction of the Integrity Division. The DRIL project was reported nine times for impropriety. The project preparatory TA planned in 2009 for phase 2 of this project will need to explore the reasons behind this high frequency of complaints and suggest ways to improve transparency in project implementation.

⁸⁴ For example, in the case of the Crop Diversification Project, despite project implementation being delayed, and several project activities being behind target, the project achieved most of its outputs as a result of close joint monitoring by NRM.

⁸⁵ ADB. 2008. *Country Partnership Strategy Midterm Review (2005–2009): Nepal*. Manila.

⁸⁶ The Worldwide Governance Indicators project reports aggregate and individual governance indicators for 212 countries and territories during 1996–2007 for six dimensions of governance: (i) voice and accountability, (ii) political stability and absence of violence, (iii) government effectiveness, (iv) regulatory quality, (v) rule of law, and (vi) control of corruption (<http://info.worldbank.org/governance/wgi/index.asp>).

⁸⁷ The Integrity Division provided the information upon the request of IED in October 2008.

f. Assessment of ADB's Institutional Performance

96. ADB's performance in sector assistance is assessed *modest*. Government officials and other stakeholders generally consider ADB to be a responsive and reliable partner. ADB support for loans and grants and for policy dialogue and networking with the Government and other development partners in sector development were generally appreciated. ADB has taken the lead in harmonizing and aligning sector assistance with national development plans for better development results through coordination and facilitation with other external stakeholders and partners. Generally, ADB has taken steps to ensure greater ownership by the Government and other stakeholders, including beneficiaries of the assistance.

97. ADB's perception of reality on the ground is sometimes inadequate. The Maoist insurgency and strategies to address it were not reflected in the COS 1999. Another area of concern is the lack of appropriate measures to address EAs' limited capacity to effectively administer projects with multiple components that require close coordination with multiple ministries and other stakeholders. ADB was viewed as inflexible in some cases regarding implementation procedures and operational modalities, though the changes needed during implementation were the result of inadequate diagnosis of issues during project appraisal and design. Also, the conditions specified for some assistance were perceived to be impositions. Deeper and more meaningful engagement and consultation with key players could have helped avoid these problems. Further, ADB's assistance in formulating or reforming a wide range of subsector policies was appreciated.

B. Bottom-Up Assessment

98. Bottom-up assessment of ADB support considers its intended outputs and/or outcomes and achievements, or the likely achievements of continuing projects, according to the five core evaluation criteria: (i) relevance, (ii) effectiveness, (iii) efficiency, (iv) sustainability, and (v) impact. The bottom-up evaluation criteria also considered the 10 factors identified as critical to success in IED's Annual Evaluation Review 2006.⁸⁸ Since the larger part of the portfolio reviewed by this evaluation was ongoing, the evaluation reports only anticipated outcomes, impact, and their sustainability based on performance as of the end of 2008. The performance ratings may change later in relation to changes in their implementation and operations. Details of subsector assessment are summarized in Supplementary Appendixes A to D.

1. Relevance

99. Overall, sector assistance is assessed *relevant*. All the subsectors and most projects are assessed *relevant*. Support was generally aligned with the main pillars of both the national development plans and ADB's sector strategies. EAs take strong ownership of the assistance in most cases, though there were some coordination problems and conflicts when EAs from more than one ministry were involved. Increasingly, agriculture projects were designed to take the

⁸⁸ These are (i) strong ownership by the Government and EAs, (ii) quality of project at entry, (iii) ability to learn lessons and incorporate them in the design of subsequent projects, (iv) participatory approaches involving beneficiaries and other stakeholders, (v) strong project management units, (vi) the ability of ADB and the EA to diagnose problems and address them appropriately during implementation, (vii) continuity with follow-on assistance in similar topics and issues, (viii) the incorporation of institutional strengthening activities, (ix) flexibility on the part of ADB in allowing appropriate design changes, and (x) the performance of contractors and consultants. Deficiencies in most of these factors were cited as reasons for underachievement in Nepal. The first four were of particular relevance in assessing projects early in their implementation and have therefore received special attention in this evaluation. ADB. 2006. *Annual Evaluation Review*. Manila. Available: <http://www.adb.org/Evaluation/arealist.asp>

needs of women and marginalized groups into account. Project design has become increasingly relevant as good practices have been identified and incorporated, particularly in follow-up projects. However, projects could have been more technically and economically sound, and EA capacity could have been more rigorously assessed. Some projects had loosely linked multiple components that diluted the focus on agriculture.

2. Effectiveness

100. Overall, the sector assistance is assessed *less effective* in achieving intended outputs and outcomes.⁸⁹ Agricultural production and marketing, and irrigation, drainage, and flood protection are assessed *less effective*, and livestock and agricultural and rural development are assessed *effective*. The support provided for increasing production and other complementary supports, such as constructing rural roads and irrigation systems and providing better access to markets, credits, and information for commercializing and diversifying agricultural and livestock production have achieved such economic objectives as improving food security, employment, and income and such social objectives as gender empowerment and greater inclusion of marginal populations. The establishment of market liberalization policies, institutions, and strategies supported the objectives of promoting multiple stakeholders, including the facilitation of public-private partnership and the use of local and national NGOs to deliver goods and services. The involvement of such partnerships enabled continuity of ADB support during the conflict. However, delays during various stages of the project implementation and low disbursement in the case of continuing projects limited development effectiveness.

3. Efficiency

101. Overall, the sector assistance is assessed *less efficient*. Drainage, irrigation, and flood protection and livestock are assessed *efficient*, and the remaining two subsectors are assessed *less efficient*. Economic returns from the sector projects were estimated to be generally satisfactory in some cases. In other cases, however, delays in implementation deferred the expected benefits and increased supervision time and costs. Greater cost efficiency could have been achieved with the same resources with the timely achievements of outputs and outcome. Full potential was not realized in most cases, as the delays caused project components to lose impetus and synchronization. Sometimes additional goods and services were needed to restart and/or continue activities previously initiated, increasing costs. Further, the delays led to hurried, last-minute project expenditure and consequent inefficient resource use, compromising the quality of outputs in some cases. Most of the projects had supported much-desired social mobilization components, but in some cases they were organized toward the end of project implementation, defeating their purpose. These factors seem to have contributed to suboptimal use of ADB assistance resources.

4. Sustainability

102. Overall, the sustainability of sector assistance is *likely* but on the low side, based on implementation performance so far and the financial and institutional capability to sustain their outputs and outcomes. Some of the supports are considered appropriate, with high project ownership and beneficiary satisfaction among various stakeholders, improving the chances of sustainability. Some of the outputs, such as establishing credit institutions, constructing such rural infrastructure as roads and irrigation systems, and institutionalizing various policies are expected to generate outcomes and impact in the longer term. The provision of funds for

⁸⁹ The overall achievement of outputs and outcomes was estimated to be below 75% of the targets.

recurrent expenses such as the Government's commitment to devote 10% of the Road Maintenance Fund to maintaining rural roads would contribute to sustainability. Success will depend upon whether such commitments translate into budget releases and prudent spending.

103. Sustainability prospects were enhanced where NGOs were involved in inclusive group formation and the private sector had adequate incentive to become involved. Some projects successfully linked markets for producers and/or suppliers in such sector services as veterinary services and repair and maintenance services, and this increased the likelihood of sustainability in the longer term. In general, sustainability prospects are enhanced if group formation is done early in the project cycle. Groups established later, on the other hand, tended to feel that inputs and services would be terminated once the projects were complete. These groups did not have sufficient strength to establish themselves as freestanding entities with a reasonable prospect of continuing to operate without outside support.

104. Indications of renewed interest in agricultural assistance among government officials and development partners improve the likelihood of sustainability. Offsetting this would be the indication of likely policy reversal for fertilizer subsidy, removal of which was a major accomplishment of the second agricultural program loan. ADB has been influential in incorporating its approaches to sector assistance in other development partner programs. The Poverty Alleviation Fund of the World Bank is adopting the community livestock insurance model developed by the CLD project. The Government mainstreamed many of the approaches for enhancing flexibility in sector assistance that were pioneered by the CGIS project.

5. Impact

105. Overall, sector assistance is assessed as likely to have *substantial* impact but on the low side. Livestock is assessed as likely to have *substantial* impact, but the other three subsectors are expected to have *modest to substantial* impact. PCRs for the completed projects show considerable impact in terms of household production and productivity, income and savings, employment, food security, and environmental factors. Impact on long-term development prospects has taken such forms as capacity development for partners in the Government, the private sector, and local and national NGOs; encouraging a partnership mentality; and empowering women and members of excluded groups and improving their awareness of their rights. Policy dialogue has fostered positive change in a range of areas, particularly in the shape of an improved enabling environment for development led by the private sector and, in the case of agricultural roads, better development partner coordination. Impact on sector development in general is more difficult to assess because the many actors make attribution highly problematic. However, in otherwise neglected areas of the sector, such as livestock, ADB's contribution has often been significant, as in the case of its facilitation of private dairy development, which has increased milk production and reduced the seasonality of supply and the perennial "milk holiday" problem. There are likely shortfalls in the performance of ADB assistance in helping the country attain MDG 1, particularly targets 1.B and 1.C on employment generation and hunger reduction (para. 15).

C. Overall Assessment of the Sector Performance

106. The overall SAPE assessment of ADB's assistance to the sector is *partly successful*. The top-down assessment is rated *successful* (based on discussion in paras. 38–97) and the bottom-up assessment (paras. 99–105) is rated *partly successful* (Table 5). Appendix 4 provides further details on performance by ratings.

Table 5: Evaluation Ratings

Evaluation Criterion	Rating
A. Top–Down Assessment	
1. Overall Sector Positioning	Substantial (low)
2. Contribution toward Sector Development	Substantial
3. ADB Institutional Performance	Modest
Subtotal	Successful (borderline)
B. Bottom–Up Assessment	
1. Relevance	Relevant
2. Effectiveness	Less Effective
3. Efficiency	Less Efficient
4. Sustainability	Sustainable (low side)
5. Impact	Substantial (low side)
Subtotal	Partly Successful
Overall Assessment	Partly Successful

ADB = Asian Development Bank.

V. CONCLUSIONS AND LESSONS, STRATEGIC ISSUES FOR FUTURE, AND RECOMMENDATIONS

A. Main Findings and Lessons

107. **Benefits of ADB's Sector Positioning.** ADB's sector positioning has benefited the ADB-Nepal partnership. However, the overall performance of ADB's assistance to the Sector has not improved. ADB continued to support the sector despite its limited success and the trends among other development partners to reduce assistance for investment in the Sector. On one hand, this resulted in (i) achieved recognition of ADB as the lead development partner in the sector; and (ii) increased marginal returns on investments because they were deployed in areas with low current investment and the most prevalent poverty. On the other hand, it would also mean the scarce ADF resources were sub-optimally used. The evaluation of three completed and seven ongoing projects showed only 4 of them being rated *successful*. This includes a program loan, whose performance was rated successful, is running a risk of a policy reversal (e.g., price subsidy on fertilizers).

108. **ADB Strategies and Programs.** ADB's strategies and programs were well intentioned to help the Government address poverty and inequality. There are signs of improvement in sector assistance performance in some areas. Noteworthy in this regard are ADB support to fostering inclusive development by addressing gender, caste, and ethnic discrimination through inclusive public policies; promoting broad-based economic growth; and improving the enabling environment for private sector development.

109. There are, however, shortfalls in achieving sector objectives and problems that have limited the realization of development effectiveness. Support provided to bring about major changes in sector and subsector policies and institutions and related outputs should have been better monitored and supervised to ensure that desired outcomes were achieved. Sufficient attention should have been given to the sources of the country's underlying comparative advantage, policy and institutional limitations, and enabling environment for the sector development. There were shortfalls in project implementation performance arising from the conflict, the lack of institutional capacity, and insufficient monitoring and evaluation. Some shortfalls stemmed from inadequate ADB staff capacity for project supervision and policy dialogue with the Government. The likelihood of the sustainability of sector outcomes is low.

110. **Alignment with Major Development Pillars.** ADB assistance to the sector over the evaluation period was well aligned with the four overarching pillars of the development theme, with a strong focus on poverty reduction. ADB used an inclusive approach to proactively bring women and other disadvantaged people into beneficiary groups. It increasingly focused on pockets of poverty, particularly in the mid-western and far-western development regions and in the eastern hills, where the incidence of poverty is high. Governance issues were addressed mainly in the form of policy reforms and institutional development. COS 1999 did not acknowledge that the growing conflict could affect ADB operations, perhaps because the projects had not been seriously affected prior to 1999.

111. **Conflict Situations Appropriately Addressed in Developing Interventions.** A number of steps were undertaken to increase incomes and employment opportunities, particularly of the poor, excluded, and vulnerable groups in conflict-affected communities. They were provided with jobs in rural infrastructure activities, better connectivity and access to markets, and skill enhancement to seize market opportunities. Some of the approaches used to continue projects in conflict areas included (i) partnering with local NGOs that could effectively mobilize and negotiate with local communities and other stakeholders; (ii) focusing on small, poorer farmers, who were not sufficiently included in past projects; (iii) focusing on pro-poor projects that produce tangible benefits quickly; (iv) ensuring a sense of project ownership among beneficiaries; (v) implementing projects in a participatory manner; and (vi) ensuring that service delivery did no harm. However, the supervision and monitoring of service delivery for performance evaluation were not strong.

112. **Social Inclusion and Gender Equality Promoted and Integrated.** The goals of social inclusion and gender equality were appropriately adopted in sector assistance. Some of the approaches used were as follows:

- (i) Ensure that beneficiary groups include a representative proportion of women and excluded groups.
- (ii) Improve the socioeconomic condition of poor rural women through economic, social, legal, and political empowerment.
- (iii) Increase employment opportunities through skill-enhancement programs.
- (iv) Develop microenterprises through the provision of rural financial services.
- (v) Provide women and marginal farmers access to effective micro-irrigation.
- (vi) Provide gender-responsive service delivery for more effective participation in the development process.

113. **Agricultural Production and Productivity Improved through increased irrigation facilities.** Attributing the changes in production and productivity in the sector to ADB is difficult even at the district level, let alone the nationally. The effects of several factors and interventions by multiple agencies are cumulative, sometimes synergistic, and almost impossible to disaggregate. However, evidence suggests that at least the project areas have experienced increased production and productivity as well as diversification to higher-value crop and livestock products. The improved availability of irrigation increased both yields and cropping intensity. Efforts to improve coordination among agriculture, irrigation, livestock, and rural finance agencies contributed to these endeavors. These efforts were believed to have reduced the incidence of poverty in rural communities.

114. **Commercialization and Diversifications Promoted.** ADB is credited with advocating and providing the support to diversify and commercialize agriculture. Broader support was provided through policies and institutional reforms to facilitate the transition from a largely subsistence economy to a commercial one. In addition, support provided on the ground included

(i) promoting linkages between farmers and agro-entrepreneurs, (ii) catalyzing private investment in agriculture and livestock, (iii) strengthening the capacity of local institutions, (iv) investing in local infrastructure such as collection and storage centers and cold stores, and (v) providing access to market information and agribusiness.

115. Some of the broader issues related to regional and international trade that could enhance commercialization were largely unaddressed: (i) the fixed exchange rate between the Nepalese and Indian rupees, which permits Indian agricultural products to be sold more cheaply than their Nepalese equivalents locally and in Indian market; (ii) the need to reduce transaction costs when exporting off-season horticultural produce to India and other neighboring countries; (iii) the need to improve the supply chain, including a mechanism to permit farmers to obtain credit against stored produce, so that they are not forced to sell immediately after the harvest, when prices are at their lowest.

116. **Follow-up Support to Improve the Enabling Environment.** ADB has contributed to reforming key agricultural policies and related institutions, as well as to the introduction of innovative approaches in sector assistance. A number of mutually reinforcing interventions were made to improve the enabling environment. An important part of this process was ADB's assessment of agricultural performance, which identified gaps and issues regarding effective policy implementation. On the institutional front, ADB's most important contribution arose from its long-term efforts to strengthen the institutional, technical, and management capacity of DLS to implement livestock programs in a participatory manner. It played a key role in establishing and developing the capacity of DOLIDAR, RMDC, and NARDF. There was, however, limited monitoring of such major actions. Follow-up and subsequent support activities for policy dialogue and advisory were needed to ensure that these major changes were adequately institutionalized and their full potential realized.

117. **Diversity and Fragmentation of Sector Support.** Some of the fragmentation arose from the inclusion of various aspects of the agriculture and rural development agendas in the sector assistance. Fragmentation further resulted from the institutional configuration of the country and the diverse nature of the assistance itself. Including the GEEOW project, which focuses mainly on legal issues, is a case in point. Similarly, rural finance would perhaps be better handled by financial sector operations. Fragmentation arose from project designs, with individual projects consisting of several subcomponents, for which a single EA rarely has the expertise required for full implementation. Attempts to bring together interrelated ministries like the Ministry of Water Resources and MOAC by having two EAs for some projects has not been successful. This complexity and fragmentation constrained the full realization of desired outcomes and impact. This is particularly relevant as several evaluations have indicated that the country has limited capacity to coordinate multiple agencies in various institutions.

118. **Project Design, Implementation, and Monitoring.** Closer attention was needed at various stages of project implementation to generate better development results. In design, the main issues include (i) greater understanding of the institutional and spatial dimensions of where the project will be implemented, (ii) building in modalities that allow greater technical innovation with higher beneficiary participation, (iii) designing in the optimal mix and deployment of partners, (iv) ensuring that economic enterprises include women and other disadvantaged groups, (v) ensuring that targets are realistic, (vi) factoring in the relevant policies of neighboring countries where necessary, and (vii) ensuring that sustainability mechanisms are built into project design. Almost all projects suffered from implementation delays at various points. The main contributing factors for the delays include management and procedural issues, start-up

delays, and inadequate project monitoring. Project monitoring should be intrinsic to project implementation and the management process.

B. Strategic Issues for the Future

119. **Achievement of Inclusive Development and MDG.** Nepal needs to accelerate efforts to meet MDG 1 on hunger, which is so far looks unlikely. This is first and foremost an agricultural issue because rural areas contain a disproportionate number of food-insecure people and part of the solution is to boost food availability. This is imperative following the increase in global food prices in 2008 and their effect on the poor.⁹⁰ It is generally assumed that globalization and the creation of an open economy will allow countries to import the food they require. However, this may not necessary hold for Nepal, as it is far from any port that can handle cargo in bulk, making imports of basic staples very expensive. In practical terms, India is the only neighboring country able to supply Nepal with such staples, but India's decision to ban food grain exports in the face of recent rising domestic prices demonstrates that this could be a very high-risk strategy.⁹¹ From a strategic viewpoint, Nepal needs to rely on its own agriculture for most supplies of staple foodstuffs. Also, most of the country is mountainous or hilly, with limited connectivity to markets. For this section of the population, much of their nutritional needs must be met from their own household production, at least in the short-to-medium term. However, from economic efficiency point of view, attention should be given to cost-effective alternatives in ensuring food supply.

120. **Transition from Subsistence to Market-Oriented Rural Economy.** Poor connectivity continues to be one of the key obstacles to Nepal's transition from largely subsistence agricultural production systems to diversification and commercialization of the sector. This is particularly the case in hilly and mountainous areas, where difficult terrain and low road density impede market access. The challenge here is to improve connectivity through the provision of carefully targeted transport links and market infrastructure, paying due attention to comparative advantage and the necessity of investing in market development.

121. **Regional Integration and Facilitation for International Trade.** The prospects for increasing exports have been boosted by a number of recent regional agreements, particularly the South Asia Free Trade Agreement, which eases trade barriers among all eight South Asian countries, and the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation, which creates similar opportunities for countries in South and Southeast Asia. Globally, Nepal's membership in WTO since 2003 has created a wide range of new challenges and opportunities for Nepalese agriculture. Two major benefits of WTO membership for Nepal are (i) transit rights through neighboring countries guaranteed under WTO rules, which is particularly important for a landlocked country, and (ii) Nepal's United Nations designation as a least-developed country, which provides it a range of advantageous provisions under the WTO agreement that are not enjoyed by neighboring developing countries, such as India, Pakistan, and the PRC.⁹² These provisions open a wide range of new opportunities that the country must learn to exploit and its development partners must support. Investments in transport infrastructure developments and trade logistics improvement would be crucial to take advantage of external markets.

⁹⁰ Rising food prices will worsen the food insecurity, particularly in the mid-western and far-western development regions, where most people consume 25–40% less than the daily calorie requirement. ADB. 2008. *Quarterly Economic Update: Nepal*. Kathmandu (April).

⁹¹ Such risks are not new. During the trade and transit crisis of 1990, India closed 11 of 13 entry points, hugely reducing Nepal's import capacity.

⁹² FAO and MOAC. 2004. *Implications of WTO Membership on Nepalese Agriculture*. Kathmandu.

122. To take advantage of these opportunities, agriculture needs to improve its efficiency, competitiveness, and quality to create dynamic comparative advantage. Greater attention needs to be paid to the positive aspects of Nepal's situation in policies and institutional reforms, to capitalize on the country's static and dynamic comparative advantage and more effectively promote commercialization and diversification.⁹³ Expanded urban centers in Nepal, northern India, and increasingly the PRC are the largest markets for off-season, high-value crops and horticultural products. Agroecological zones that are complementary to those of neighboring parts of India make many hill and mountain districts cool enough to produce temperate vegetables in summer, when prices are high in India. Nepal could export perishable crops to the PRC when it is too cold for horticultural production on the Tibetan Plateau.

123. **Knowledge Solutions for Improved Food Security and Crop Diversification.** The production of staple crops expanded more slowly than the population over the evaluation period. The productivity of staple crops is low by regional standards. However, ADB's country strategies have generally not appreciated the crucial role of research and technology development and dissemination, despite the promotion of such interventions being classified as a priority in the APP to achieve high and sustainable agricultural growth. NARDF was established to generate client-oriented research, but it taps mainly into conventional technologies and existing local knowledge. Further, it failed to provide an appropriate role for NARC, the largest research institute with nationwide networks, in the NARDF setup. This limited the possibility of generating technologies applicable on a large scale. The projects did not utilize appropriate technologies generated through ADB-supported regional TA, though the reason for this may partly be insufficient coordination with NRM on the part of the CGIAR centers. Generally, agricultural projects use conventional technologies, as promoted by DOA and DLS, which incorporate little if any new knowledge and tend not to contribute to knowledge generation.

124. **Quality Control of Agricultural Inputs and Systems.** Challenges remain in providing quality inputs for agricultural and livestock production systems. For example, the liberalization of fertilizer markets has increased fertilizer supply but also contributed to imbalanced nutrient application. Quality control problems sometimes arise in seed and pesticides. Cereal seed supplies were constrained by poor incentives for production and replication. One third of irrigable land in Nepal is not yet irrigated, and where irrigation is available it is rarely used optimally. Land consolidation is necessary for efficient irrigation, as noted in the APP. Although this is less challenging than land redistribution, it still creates major administrative issues.

125. **Sector Staff Resources at ADB.** ADB's corporate capacity and competencies in agriculture at headquarters and NRM has declined in recent years as a result of limited success in the ANR sector operations and ensuing low priority in corporate strategies such as MTS II and Strategy 2020.⁹⁴

⁹³ Static comparative advantage is conferred by nature. Dynamic comparative advantage is created by investments.

⁹⁴ ADB. 2008. *Poverty Reduction in ADB: Biennial Sector Reports for 2005–2006*. Manila.

C. Recommendations

126. The following directional recommendations are made for consideration by ADB Management for the next CPS.

Recommendation	Responsibility
<p>1. Reduce subsector spread of ADB assistance to the Sector to achieve optimal efficiency in resource allocation and use. [Paras. 47, 52, 117]</p> <ul style="list-style-type: none"> The support provided to the Sector needs to be narrowly focused on the priority areas or subsectors to improve development results by building a critical mass needed to maximize development impact. The present practice of combining diverse and poorly-linked interventions in the form of ANR projects reduces the potential impact of such projects and of the total sector assistance. 	South Asia Department (SARD)
<p>2. Increase strategic focus in supporting the agriculture and natural resources (ANR) by increasing investment in rural infrastructure such as irrigation, rural roads and market infrastructure). [Paras. 113, 114, 120]</p> <ul style="list-style-type: none"> This approach would (i) be consistent with the Government's plans and ADB's Strategy 2020; (ii) compliment to the Government's own and other donors support to rural infrastructure development, including reconstruction and rehabilitation; (iii) improve irrigation facilities; and (iv) assist in improving connectivity and access of rural people to markets, economic activities and social services by that contributing to socially inclusive agriculture and rural development. 	SARD

BACKGROUND INFORMATION ON THE STUDY AND METHODOLOGY

A. Introduction

1. This sector assistance program evaluation (SAPE) covers Asian Development Bank (ADB) operations in the agriculture and natural resources (ANR) sector in the 11 years from 1997 to 2007. The first year marked the launch of the first comprehensive plan for sector development—the Agriculture Perspective Plan (APP)—which continues to be the basis for agricultural development programs in Nepal. The main purpose of the SAPE is to assess how ADB's development assistance to agriculture is linked to the sector's socioeconomic performance and identify opportunities for improving future program performance.

B. Evaluation Methodology and Approach

2. The SAPE uses the Independent Evaluation Department (IED) evaluation framework prepared for country assistance program evaluation, with appropriate modifications for sector evaluation.¹ A key component of the methodology is to combine a retrospective assessment of actions and accomplishments with anticipated outcomes from present operations. The overall performance assessment and ratings are based on a combination of these top-down and bottom-up approaches.

3. The top-down assessment involves performance ratings based on (i) ADB's strategic positioning for development assistance, (ii) the contribution of assistance to sector development results, and (iii) the quality and responsiveness of ADB's services. The top-down assessment linked with the expected intermediate outcomes gauged against the indicators listed in ADB's strategic focus relevant to the proposed SAPE, as stated in the country strategy and program 2005–2009.² Among other data sources, the top-down rating considers the views of the Government and executing agencies (EAs), other development partners, and feedback from the ADB operations staff.

4. The bottom-up approach involves an assessment of the assistance provided to the sector in terms of its intended contributions as well as its achievements, realized or likely. In particular, it focuses on the outcome of assistance to the sector that has been agreed by the Government and ADB. At this level, the evaluation is based on the outputs, outcomes, and impact of the project and program loans, technical assistance, and other grants. The bottom-up assessment evaluates and rates performance according to the five core criteria: (i) relevance, (ii) effectiveness, (iii) efficiency, (iv) sustainability, and (v) impact. The bottom-up evaluation criteria focuses on 10 factors identified as critical to success in IED's 2006 Annual Evaluation Review.³ These factors are identified as (i) strong ownership by the Government and EAs, (ii) quality of project at entry, (iii) ability to learn lessons and incorporate them in the design of subsequent projects, (iv) participatory approaches involving beneficiaries and/or

¹ ADB. 2006. *Guidelines for the Preparation of Country Assistance Program Evaluation Reports*. Manila. Available: <http://www.adb.org/Documents/Guidelines/Country-Assistance-Program/default.asp>

² ADB. 2004. *Country Strategy and Program (2005–2009): Nepal*. Manila. <http://www.adb.org/Documents/CSPs/NEP/2004/default.asp>. This is the first ADB country strategy and program with a country strategy and program results framework.

³ ADB. 2006. *Annual Evaluation Review*. Manila. <http://www.adb.org/Documents/PERs/2006-AER.pdf>. The 10 critical success factors were identified based on the multi-sector and multi-country Operations Evaluation Department studies that include the ANR sector and Nepal. Those studies focus on the following issues in each of the sector evaluated: (i) characteristics of successful projects, (ii) quality at entry, (iii) quality during implementation, (iv) performance of the EA, (v) ADB's contribution to project success, (vi) exogenous factors, and (vii) crosscutting themes.

stakeholders, (v) strong project management units, (vi) ADB and EA diagnosis of problems and ability to appropriately address them during implementation, (vii) continuity with follow-on assistance in similar topics and/or issues, (viii) the incorporation of institutional strengthening activities, (ix) ADB flexibility to allow appropriate design changes, and (x) the performance of contractors and consultants. Most of these factors have in the past been cited as reasons for underachievement in Nepal. The first four factors are of particular relevance in assessing projects in their early phases of implementation. Based on the findings on the issues presented in the matrix, appropriate weights for each of the evaluation criteria for the three top-down and five bottom-up approaches are assigned and an overall sector rating is derived.

5. Broader trends in growth and changes in the sector over the past 11 years were first analyzed by focusing closely on the issues identified in the evaluation approach paper.⁴ This analysis provided an overview of the progress made in the sector. A detailed analysis of the performance of program and project loans was then conducted to keep the evaluation relevant to the current context and to draw useful lessons for future operations. The SAPE identified key determinants of success and the extent to which previously identified lessons were incorporated in subsequent operations. The assessment also identified challenges, constraints, and opportunities.

6. The study was conducted in three phases: (i) inception; (ii) data collection and analysis; and (iii) report drafting, consultation, and finalization. The inception phase included the finalization of the evaluation approach paper. This paper was based on a literature review of the sector, in particular ADB and government documents on development assistance and other knowledge products, interactions with ADB headquarters staff (in both the South Asia Department and IED), and the information collected during the fact-finding mission.⁵ The Fact-Finding Mission included consultation with staff of the Nepal Resident Mission and key government officials from the Ministry of Finance (MOF); Ministry of Agriculture and Cooperatives (MOAC); Nepal Agriculture Research Council (NARC); EAs of various ADB projects and TA; and representatives of the Department for International Development of the United Kingdom, International Fund for Agricultural Development, World Bank, and other stakeholders. Interactions with key players in the sector at an early stage of developing this approach paper enabled the proper identification and incorporation of main issues of sector performance.

C. List of Projects Included in the Sector Assistance Program Evaluation

7. Eight loan projects, seven advisory technical assistance projects, and two grants were approved during the evaluation period. This assistance formed the core of the bottom-up assessment and determined the ratings.

⁴ ADB. 2008. *Proposed Evaluation Approach Paper of the Sector Assistance Program Evaluation for the Agriculture and Natural Resources in Nepal*. Manila (17 June).

⁵ The fact-finding mission was conducted from 9 to 25 March 2008. For details on the issues explored and people met and other details, see ADB. 2008. *Back-to-Office Report of the Fact-Finding Mission on a Proposed Sector Assistance Program Evaluation for the Agriculture and Natural Resources for Nepal*. Manila (18 April).

1. Loan Program and Projects

8. **Second Agriculture Program, 1998–2002.**⁶ Approved in November 1997 to support the implementation of the APP, this program loan was evaluated by IED⁷ in December 2004.

9. **Crop Diversification Project, 2000–2007.**⁸ This project promoted the production and marketing of secondary and other agricultural crops. Its scope included (i) the provision of extension services for farmer groups, (ii) the promotion of private extension services, (iii) the promotion of client-oriented research activities, and (iv) support for project management. It focused on improving agricultural extension services and strengthening the linkage between extension and research to address the needs of farmer groups in the project area. It aimed to utilize and support district agricultural development committees to improve coordination with the activities of other agencies in irrigation, livestock, and rural finance. This program was rated *satisfactory* in its recent project performance report (PPR). No project completion report (PCR) has yet been scheduled, though one was expected in December 2007.

10. **Decentralized Rural Infrastructure and Livelihood (DRIL) Project, 2004–2011.**⁹ The DRIL project aims to address the development needs of conflict-affected communities to restore incomes and connect the rural poor to markets and economic opportunities through investments in rural infrastructure and livelihood restoration facilities. DRIL project support includes the improvement of such rural transport infrastructure as roads, trails, and pedestrian bridges. It also has a capacity-development component both nationally and within the project. The DRIL project was rated *satisfactory* in its recent PPR, with disbursement reaching 11% in an elapsed period of 48%.

11. **Gender Equality and Empowerment of Women Project, 2004–2010.**¹⁰ The objective is to improve the socioeconomic condition of poor rural women through economic, social, legal, and political empowerment. This is meant to be done by (i) strengthening their individual capability to improve their access to, and control over, assets; (ii) building group support for individual and collective action to influence institutions and hold them accountable; and (iii) reforming government institutions and processes to make them gender-responsive and include previously marginalized women in development opportunities. The project components are (i) economic empowerment, (ii) legal empowerment, (iii) social empowerment, and (iv) institutional strengthening and project management. The components are mutually supporting and aim to promote a virtuous circle of socioeconomic improvement among poor rural women.

⁶ ADB. 1998. *Report and Recommendation of the President to the Board of Directors on a Proposed Loan to the Kingdom of Nepal for the Second Agriculture Program*. Manila (Loan 1604-NEP[SF], for \$50 million, approved on 22 January). Available: <http://www.adb.org/Documents/RRPs/NEP/rrp-R25197.pdf>

⁷ ADB. 2005. *Program Performance Audit Report on the Second Agriculture Program in Nepal*. Manila (Loan 1604-NEP[SF], 11 April). Available: <http://www.adb.org/Documents/PPARs/NEP/ppa-nep-25361.pdf>

⁸ ADB. 2000. *Report and Recommendation of the President to the Board of Directors on a Proposed Loan to the Kingdom of Nepal for the Crop Diversification Project*. Manila (Loan 1778-NEP[SF], for \$11 million, approved on 9 November). Available: <http://www.adb.org/Documents/RRPs/NEP/30228-NEP-RRP.pdf>

⁹ ADB. 2004. *Report and Recommendation of the President to the Board of Directors on a Proposed Loan and Technical Assistance Grants to the Kingdom of Nepal for the Decentralized Rural Infrastructure and Livelihood Project*. Manila (Loan 2092-NEP[SF], for \$40 million, approved on 24 September). Available: <http://www.adb.org/Documents/RRPs/NEP/rrp-nep-30232.pdf>

¹⁰ ADB. 2004. *Report and Recommendation of the President to the Board of Directors on a Proposed Loan to the Kingdom of Nepal for the Gender Equality and Empowerment of Women Project*. Manila (Loan 2143-NEP[SF], for \$10 million, approved on 16 December). Available: <http://www.adb.org/Documents/RRPs/NEP/rrp-nep-34306.pdf>

12. **Rural Microfinance (RMF) Project, 1998–2007.**¹¹ RMF aimed to improve the socioeconomic status of women, expand their employment opportunities, and develop microenterprises through the provision of rural financial services, including a revolving line of credit to finance viable farm and off-farm activities. It supported a program to improve women's investment opportunities and skills and to strengthen the institutional and financial capability of microfinance institutions. RMF was rated *satisfactory* in its recent PPR, with disbursement reaching 100% in an elapsed period of 132%.

13. **Community Groundwater Irrigation Sector (CGIS) Project, 1998–2007.**¹² The main objective of the CGIS project was to (i) sustainably increase agricultural productivity to improve the income of smallholder farmers through participatory, demand-driven, and community-based approaches to shallow tube well (STW) development and by building the capacity of water users' groups. The CGIS project support consisted of four components: (i) community STW development, (ii) the improvement of farm-to-market roads, (iii) the provision of credit for STW investment and crop production, and (iv) institutional strengthening for community-managed STWs. The PCR was conducted in the second quarter of 2008. The CGIS project was rated *satisfactory* in its recent PPR, with disbursement reaching 96% in an elapsed period of 135%.

14. **Community-Managed Irrigated Agriculture Sector (CMIAS) Project, 2004–2012.**¹³ The CMIAS project's objective is to improve both agriculture productivity and the sustainability of existing farmer-managed irrigation systems. The project aims to institutionalize improved service delivery mechanisms for farmer-managed irrigation systems, including irrigation and agriculture extension services within the regular setup of the Department of Irrigation, the Department of Agriculture, and local governance institutions. The expected benefits of the CMIAS project are (i) increased agricultural production, (ii) expanded income-earning opportunities, and (iii) improved nutrition, particularly among smallholders suffering from chronic food deficits. The CMIAS project was rated *satisfactory* in its recent PPR, with disbursement reaching 7% in an elapsed period of 42%.

15. **Community Livestock Development (CLD) Project, 2003–2010.**¹⁴ CLD's objective is to reduce the incidence of poverty in rural communities in the project area. Its purpose is to improve the food security, nutrition, income, and employment of 164,000 families by raising the productivity of the livestock subsector in an environmentally sustainable and socially equitable manner. CLD support is being used to improve the livestock subsector by (i) developing the capacity of stakeholders, (ii) enhancing productivity, and (iii) improving processing and marketing. CLD was rated *satisfactory* in its recent PPR, with disbursement reaching 31% in an elapsed period of 64%.

¹¹ ADB. 1998. *Report and Recommendation of the President to the Board of Directors on a Proposed Loan to the Kingdom of Nepal for the Rural Microfinance Project*. Manila (Loan 1650-NEP[SF], for \$20 million, approved on 8 December). Available: <http://www.adb.org/Documents/RRPs/NEP/rrp-R19198.pdf>

¹² ADB. 1998. *Report and Recommendation of the President to the Board of Directors on a Proposed Loan to the Kingdom of Nepal for the Community Groundwater Irrigation Sector Project*. Manila (Loan 1609-NEP[SF], for \$30 million, approved on 26 February). Available: <http://www.adb.org/Documents/RRPs/NEP/rrp-R2998.pdf>

¹³ ADB. 2004. *Report and Recommendation of the President to the Board of Directors on a Proposed Loan to the Kingdom of Nepal for the Community-Managed Irrigated Agriculture Sector Project*. Manila (Loan 2102-NEP[SF], for \$20 million, approved on 17 November). Available: <http://www.adb.org/Documents/RRPs/NEP/rrp-nep-33209.pdf>

¹⁴ ADB. 2003. *Report and Recommendation of the President to the Board of Directors on a Proposed Loan to the Kingdom of Nepal for the Community Livestock Development*. Manila (Loan 2071-NEP[SF], for \$20 million, approved on 19 December). Available: http://www.adb.org/Documents/RRPS/NEP/rrp_nep_35170.pdf

2. Advisory Technical Assistance¹⁵

16. **Economic and Social Inclusion of the Disadvantaged Poor through Livelihood Enhancement with Micro-Irrigation, 2006–2007.**¹⁶ This TA aimed to establish effective micro-irrigation delivery systems to the poorest and most disadvantaged groups—including ethnic minorities, *Dalits* (low-occupation castes),¹⁷ women, marginal farmers, and landless families—to back up the CMIAS project.

17. **Institutional Reforms in the Agriculture Sector, 1998–2001.**¹⁸ The TA objective was to assist the Government in facilitating its policy and institutional reforms in the agricultural sector. It had two components: (i) support to reform agricultural institutions and (ii) strengthening management capability for local infrastructure development. The TA was completed in January 2000. The technical assistance completion report (TCR) rated the project *generally successful*.¹⁹

18. **Agriculture Sector Performance Review (2000–2002).**²⁰ This TA assessed the performance of the sector and identified gaps and issues to be addressed for effective APP implementation. The findings and recommendations of the TA were expected to help implement sustainable reforms and promote a smooth transition toward market-oriented agriculture. The TA was evaluated by IED in December 2002 and rated *successful*.²¹ The TCR, circulated in July 2003, also rated the TA *successful*.²²

19. **Capacity Building in Rural Infrastructure Institutions (2004–2009).**²³ This TA supported capacity development in the Department of Local Infrastructure Development and Agricultural Roads (DOLIDAR) in a number of key, mutually complementary sector areas.²⁴ It

¹⁵ TA 3247: Monitoring of the Agriculture Perspective Plan (1999–2001) was planned but cancelled after protracted negotiations over the hiring of consultants. The objective of this TA was to assist the Government in improving the monitoring of the APP. The TA aimed to (i) institutionalize the Internal Audit Unit's (IAU) inputs into the project and the budget screening mechanisms of the National Planning Commission, (ii) improve the quality of IAU's management information system, (iii) develop the capacity of the staff of IAU and other relevant agencies in the effective use of the database and computer program that had been developed, (iv) conduct field surveys, (v) exchange information with a wide range of stakeholders in agriculture; and (vi) recommend practical measures to ensure that IAU's monitoring activities would become sustainable.

¹⁶ ADB. 2006. *Technical Assistance to the Kingdom of Nepal for the Economic and Social Inclusion of the Disadvantaged Poor through Livelihood Enhancement with Micro-Irrigation*. Manila (TA 4774-NEP, for \$450,000, approved on 20 March). Available: <http://www.adb.org/Documents/TARs/NEP/39004-NEP-TAR.pdf>

¹⁷ The term 'untouchable' or *Achhut* has been in the Nepali discourse from a very long period of time denoting those castes of Shudras, who are not permitted by upper castes to enter their houses, temples and other public places and to touch food or water to be used by the upper caste people. In last decades of 20th Century, the term *dalit* has been started to use intensively to replace the word '*Achhut*'.

¹⁸ ADB. 1998. *Technical Assistance to the Kingdom of Nepal for the Institutional Reforms in the Agriculture Sector*. Manila (TA 3008-NEP, for \$900,000, approved on 17 April). Available: <http://www.adb.org/projects/project.asp?id=31399>

¹⁹ ADB. 2000. *Technical Assistance Completion Report for the Institutional Reforms in the Agriculture Sector in Nepal*. Manila.

²⁰ ADB. 2000. *Technical Assistance to the Kingdom of Nepal for the Agriculture Sector Performance Review*. Manila (TA 3536-NEP, for \$600,000, approved on 13 November). Available: <http://www.adb.org/Projects/project.asp?id=32243>

²¹ ADB. 2002. *Technical Assistance Performance Audit Report on Selected Technical Assistance for Agricultural Planning and Statistics in Nepal*. Manila. Available: http://www.adb.org/Documents/PERs/NEP_IN9_03.pdf

²² ADB. 2003. *Technical Assistance Completion Report on Agriculture Sector Performance Review in Nepal*. Manila. Available: <http://www.adb.org/Projects/project.asp?id=32243>

²³ ADB. 2004. *Technical Assistance to the Kingdom of Nepal for the Capacity Building in Rural Infrastructure Institutions*. Manila (TA 4397-NEP, for \$400,000, approved on 24 September). This TA was attached to Loan 2092-NEP.

²⁴ The TA was also expected to support the development of national policies and strategies that previous ADB TA had initiated (ADB. 1996. *Technical Assistance to the Kingdom of Nepal for the Institutional Strengthening for Rural*

aimed to draw together, assess, and build on the achievements and experience of procedures already being used in different programs in the sector. The TA is expected to be completed in December 2009.

20. **Strengthening Land Administration (2007–2008).**²⁵ This TA is expected to contribute to improved social justice and poverty reduction through the development of an effective land management system. It is expected to increase the effectiveness of land administration and, in the long term, improve social justice and the rights of the poor. The key expected outputs are (i) a revised business process; (ii) a strategy for technology use in land administration; (iii) accessible, secure, and upgraded land records; (iv) a costed action plan to implement the strategy; (v) pilot testing of the strategy in selected areas; and (vi) the production of a road map toward a comprehensive national land policy framework. The TA was expected to be completed in December 2008, however, it is not clear if in fact the project has been completed.

21. **Third Livestock Development (1997–2003).**²⁶ This TA was provided to further strengthen the institutional, technical, and management capacity of the Department of Livestock Services (DLS) to implement livestock programs in a participatory manner. In addition, the project aimed to promote the marketing and processing of livestock through enhanced private sector participation. In particular, the TA was expected to assist the DLS in (i) further refining, applying, and managing participatory livestock development strategies and approaches; (ii) technical and management capacity building through training for the delivery of quality extension services; (iii) establishing small and medium-sized business in milk and meat processing and marketing; and (iv) developing modalities for collaboration with nongovernment organizations, the private sector, and participating financial institutions to implement livestock programs. The TCR rated the project *successful*.²⁷

22. **Promoting Pro-Poor and Gender Responsive Service Delivery (2004–2007).**²⁸ This TA was designed to enhance the participation of poor and disadvantaged women and men through gender responsive service delivery in Lamjung and Nawalparasi districts. Its objective was to identify and pilot-test effective approaches to inclusive poverty reduction. The TCR rated the project *partly successful*.²⁹

Infrastructure Development. Manila; ADB. 1998. *Technical Assistance to the Kingdom of Nepal for Institutional Reforms in the Agriculture Sector*. Manila).

²⁵ ADB. 2007. *Technical Assistance to the Kingdom of Nepal for the Strengthening Land Administration Services*. Manila (TA-4969-NEP, for \$350,000, approved on 26 September). Available: <http://www.adb.org/Documents/TARs/NEP/40544-NEP-TAR.pdf>

²⁶ ADB. 1997. *Technical Assistance to the Kingdom of Nepal for the Third Livestock Development*. Manila (TA 2851-NEP, for \$750,000, approved on 18 August). <http://www.adb.org/Documents/TACRs/NEP/tacr-nep-2851.pdf>. This TA is attached to Loan 1461-NEP (ADB. 1996. *Report and Recommendation of the President to the Board of Directors on a Proposed Loan to the Kingdom of Nepal for the Third Livestock Development Project*. Manila [Loan 1461-NEP{SF}, for \$18.3 million, approved on 19 September]). Available: <http://www.adb.org/Documents/RRPs/NEP/rrp-R17896.pdf>

²⁷ ADB. 2005. *Technical Assistance Completion Report on the Third Livestock Development Project in Nepal*. Manila. Available: <http://www.adb.org/Projects/project.asp?id=31568>

²⁸ ADB. 2004. *Technical Assistance to the Kingdom of Nepal for Promoting Pro-poor and Gender-Responsive Delivery*. Manila (TA 4353-NEP, for \$200,000, approved on 7 July). Available: <http://www.adb.org/Documents/TARs/NEP/tar-nep-38059.pdf>

²⁹ ADB. 2005. *Technical Assistance Completion Report on Promoting Pro-poor and Gender-Responsive Delivery in Nepal*. Manila. Available: <http://www.adb.org/Documents/TACRs/NEP/38059-NEP-TCR.pdf>

3. Grant Assistance

23. **Commercial Agriculture Development Project, 2006–2013.**³⁰ Poverty reduction is expected to be realized by targeting poor areas and expanding economic opportunities for the rural poor, catalyzing private sector investment in agriculture, and strengthening the capacity of local institutions. A primary focus is on helping farmers become more knowledgeable, capable, and competitive in the market chain to secure improved incomes. Investment in local infrastructure in the form of collection and storage centers, cool stores, and access to market information and agribusiness and/or product improvement technology is to be provided. Attention is to be given to traders and processors to help improve the quality and regularity of supply of products purchased by them and to encourage their investment in the market chain through linkages to farmers. The project is expected to reduce poverty in 11 districts (five hill districts, five *Terai*³¹ districts, and one mountain district) in the eastern development region.

24. **Improving the Livelihoods of Poor Farmers and Disadvantaged Groups in the Eastern Development Region (2006–2010).**³² The objectives of this project, which is financed by the Japan Fund for Poverty Reduction, are to (i) improve the livelihoods of the rural poor in the agriculture sector and (ii) increase poor people's participation in the development process in the eastern development region. The purpose of the project is to reach 12,000 very poor people in Dhankuta, Morang, Saptari, and Sunsari districts, increase their incomes, and enhance their skills for effective participation in development efforts.

25. A summary of all projects, along with their expected closing dates, is provided in Table A1.1. The geographic coverage of the projects by district is indicated in Table A1.2.

³⁰ ADB. 2006. *Report and Recommendation of the President to the Board of Directors on a Proposed Asian Development Fund Grant to the Kingdom of Nepal for the Commercial Agriculture Development Project*. Manila (Grant 0063-NEP, \$18 million, approved 16 November). <http://www.adb.org/Documents/RRPs/NEP/34308-RRP-NEP.pdf>

³¹ The *Terai* region is a 26–32 kilometer wide belt of alluvial and fertile plain in southern Nepal that extends from the westernmost part of the country to the eastern limit and covers about 17% of the total land area.

³² ADB. 2006. *Report and Recommendation of the President to the Board of Directors on a Proposed Japan Fund for Poverty Reduction Grant to Nepal for Improving the Livelihoods of Poor Farmers and Disadvantaged Groups in the Eastern Development Region*. Manila (Grant 9101-NEP, \$1 million, approved 13 December). <http://www.adb.org/Documents/JFPRs/NEP/39113-NEP-JFPR.pdf>

Districts of Nepal	Production Zone	Project Support from 1997 to 2007							
		1	2	3	4	5	6	7	8
Districts of Bheri									
Banke District (Nepalgunj)	T	√	√		√			√	
Bardiya District (Gulariya)	T ^a	√	√					√	
Dailekh District (Dullu)	H	√	√					√	
Jajarkot District (Khalanga)	H			√				√	
Surkhet District (Surkhet)	H	√	√					√	
Districts of Dhawalagiri									
Baglung District (Baglung)	H			√	√			√	
Mustang District (Jomsom)	M								
Myagdi District (Beni)	H			√					
Parbat District (Kusma)	H				√				
Districts of Gandaki									
Gorkha District (Gorkha)	H			√					
Kaski District (Pokhara)	H				√			√	
Lamjung District (Bensi Sahar)	H		√	√				√	
Manang District (Chame)	M								
Syangja District (Syangja)	H		√						
Tanahu District (Damauli)	H		√					√	
Districts of Janakpur									
Dhanusha District (Janakpur)	M				√	√		√	
Dolakha District (Charikot)	M								
Mahottari District (Jaleswor)	T		√		√	√	√	√	
Ramechhap District (Manthali)	H			√	√				
Sarlahi District (Malangwa)	T				√	√		√	
Sindhuli District (Sindhuli Gadhi)	H				√				
Districts of Karnali									
Dolpa District (Dolpa)	M			√					
Humla District (Simikot)	M			√					
Jumla District (Jumla Khalanga)	M			√	√				
Kalikot District (Kalikot)	M			√	√				
Mugu District (Gamgadhi)	M			√	√				
Districts of Koshi									
Bhojpur District (Bhojpur)	H								
Dhankuta District (Dhankuta)	H		√		√			√	√
Morang District (Biratnagar)	T		√			√		√	√
Sankhuwasabha District (Khandbari)	M								
Sunsari District (Inaruwa)	T		√			√		√	√
Terhathum District (Manglung)	H								√
Districts of Lumbini									
Arghakhanchi District (Sandhikharka)	H							√	
Gulmi District (Tamghas)	H							√	
Kapilbastu District (Taulihawa)	T							√	
Nawalparasi District (Parasi)	T		√					√	
Palpa District (Tansen)	H		√					√	
Rupandehi District (Bhairahawa)	T		√					√	
Districts of Mahakali									
Baitadi District (Baitadi)	H	√	√	√	√			√	
Dadeldhura District (Dadeldhura)	H	√	√					√	
Darchula District (Darchula)	M	√		√					
Kanchanpur District (Mahendara Nagar)	T	√	√					√	

Districts of Nepal	Production Zone	Project Support from 1997 to 2007							
		1	2	3	4	5	6	7	8
Districts of Mechi									
Ilam District (Ilam)	H						√		√
Jhapa District (Chandragadhi)	T		√			√		√	√
Panchthar District (Phidim)	H								√
Taplejung District (Taplejung)	M			√					√
Districts of Narayani									
Bara District (Kalaiya)	T		√		√	√		√	
Chitwan District (Bharatpur)	T				√	√		√	
Makwanpur District (Hetauda)	H		√					√	
Parsa District (Birgunj)	T					√		√	
Rautahat District (Gaur)	T		√		√	√		√	
Districts of Rapti									
Dang Deokhuri District (Ghorahi)	T	√			√			√	
Pyuthan District (Pyuthan)	H				√			√	
Rolpa District (Liwang)	H							√	
Rukum District (Musikot)	H							√	
Salyan District (Salyan Khalanga)	H				√			√	
Districts of Sagarmatha									
Khotang District (Diktel)	H								
Okhaldhunga District (Okhaldhunga)	H			√					
Saptari District (Rajbiraj)	T		√		√	√		√	√
Siraha District (Siraha)	T		√		√	√		√	√
Solukhumbu District (Salleri)	M			√					
Udayapur District (Gaighat)	H		√						√
Districts of Seti									
Achham District (Mangalsen)	H	√			√			√	
Bajhang District (Chainpur)	M			√	√				
Bajura District (Martadi)	M			√	√				
Doti District (Dipayal)	H	√			√			√	
Kailali District (Dhangadhi)	T	√	√					√	

M = mountain, H = hill, and T = *terai*.

^a The *Terai* region is a 26–32 kilometer wide belt of alluvial and fertile plain in southern Nepal that extends from the westernmost part of the country to the eastern limit and covers about 17% of the total land area.

Note: Details of project support are as follows: 1 = Loan 1778-NEP: Crop Diversification, 2 = Loan 1650-NEP: Rural Microfinance, 3 = Loan 2092-NEP: Decentralized Rural Infrastructure and Livelihood, 4 = Loan 2143-NEP: Gender Equality and Empowerment of Women, 5 = Loan 1609-NEP: Community Groundwater Irrigation Sector, 6 = Loan 2102-NEP: Community-Managed Irrigated Agriculture Sector, 7 = Loan 2071-NEP: Community Livestock Development, 8 = Grant No. 63: Commercial Agriculture Development.

Source: ADB ANR project documents in Nepal, 1997–2007.

D. Projects Across Different Modalities of Support

26. Seven regional TA projects provided support for research and technology development in agriculture. Consultative Group on International Agricultural Research (CGIAR) centers are the EAs of these regional TA projects. The individual CGIAR centers responsible for each of the agriculture and natural resources research (ANRR) projects are identified below. The national

counterpart is NARC for all projects except one, for which the counterpart is the Department of Forestry.³³ The following regional TA projects were considered in this evaluation.

27. **Development of Effective Water Management Institutions, Third ANRR at CGIAR Centers, (1998–2003).**³⁴ The International Water Management Institute is the EA. The project was completed in October 2004 and TCR rated it *successful*.³⁵

28. **Conservation and Use of Native Tropical Fruit Species Biodiversity in Asia, Fourth ANRR at CGIAR Centers, 1999–2004.**³⁶ The International Plant Genetic Resources Institute is the EA. The project was completed in May 2005 and TCR rated it *successful*.

29. **Sustaining the Rice-Wheat Production Systems of Asia, Fifth ANRR at CGIAR Centers (2000–2007).**³⁷ The International Maize and Wheat Improvement Center is the EA. Requested for closing, but there is no schedule for the TCR as yet.

30. **Poverty Reduction through Advisory Network, Policy Research, and Capacity Strengthening in South Asia, Seventh ANRR at CGIAR Centers, (2002–2008).**³⁸ The International Food Policy Research Institute is the EA. The project was completed in December 2008 and TCR rated the project *successful*.

31. **Regional Workshops on Agriculture and Natural Resources Research in the Central and South Asian Regions, Eighth ANRR at CGIAR Centers (2003–2007).**³⁹ ADB's Agriculture, Natural Resources, and Social Sectors Division of the Regional and Sustainable Development Department coordinated the workshop. This regional TA was completed on 31 December 2007, but no schedule for the TCR has yet been set.

32. **Enhancing Farmers' Income and Livelihoods through Integrated Crop and Resource Management in the Rice-Wheat System in South Asia, Ninth ANRR at CGIAR Centers, (2004–2008).**⁴⁰ The International Rice Research Institute (IRRI) is the EA. The expected completion date was 31 December 2008.

³³ Five of these RETA projects have been completed, and two were expected to be completed in 2008. RETAs 5812, 5866, and 6067 were rated *successful* in their TA completion reports. The other completed TA projects do not yet have completion reports. A case study of a regional TA in Nepal is in Appendix 6.

³⁴ ADB. 1998. *Technical Assistance for the Third Agriculture and Natural Resources Research at CGIAR Centers*. Manila (TA 5812-REG, for \$5.6 million, approved on 22 October). Available: <http://www.adb.org/Projects/project.asp?id=32412>

³⁵ ADB. 2004. *Technical Assistance Completion Report for the Third Agriculture and Natural Resources Research at CGIAR Centers*. Manila. Available: <http://www.adb.org/Documents/TACRs/REG/tar-reg-5812.pdf>

³⁶ ADB. 1999. *Technical Assistance for the Fourth Agriculture and Natural Resources Research at CGIAR Centers*. Manila (TA 5866-REG).

³⁷ ADB. 2000. *Technical Assistance for the Fifth Agriculture and Natural Resources Research at CGIAR Centers*. Manila (TA 5945-REG).

³⁸ ADB. 2002. *Technical Assistance for the Seventh Agriculture and Natural Resources Research at International Agricultural Research Centers*. Manila (TA 6067-REG).

³⁹ ADB. 2003. *Technical Assistance for the Eighth Agriculture and Natural Resources Research at International Agricultural Research Centers*. Manila (TA 6136-REG).

⁴⁰ ADB. 2004. *Technical Assistance for the Ninth Agriculture and Natural Resources Research at International Agricultural Research Centers*. Manila (TA 6208-REG).

33. **Development and Dissemination of Water-Saving Rice Technologies in South Asia, Tenth ANRR at CGIAR Centers (2005–2008).**⁴¹ IRRI is the EA. The expected completion date was 31 December 2009.

E. Study Organization and Data Collection

34. ADB's knowledge products such as policy dialogues, sector reviews and assessments, and other sector-specific knowledge products were important sources of information. Qualitative and quantitative data were collected, and a mix of complementary tools was used to triangulate information derived from literature reviews, data analysis, and stakeholders' perceptions. Case studies and rapid rural appraisals were used for in-depth analyses of subsectors or thematic issues. The tools and techniques used for data and information gathering and analysis included the following: (i) document review, (ii) trend analysis, (iii) key informant interview, (iv) focus group discussions, and (v) field visits and observations.

Table A1.3: Project Sites Visited

Project Number	Name of the Project	Project districts/ sites visited	Project Status
Grant 0063-NEP	Commercial Agriculture Development Project	Dhankuta, Morang	Ongoing
Grant 9101-NEP	Improving Livelihood of Poor Farmers and Disadvantaged Groups in the EDR (JFPR)	Dhankuta, Morang	Ongoing
Loan 1609-NEP	Community Ground Water Irrigation Sector Project	Jhapa, Morang, Chitwan	Completed
Loan 1650-NEP	Rural Microfinance Project	Dhankuta, Jhapa, Makwanpur	Completed
Loan 1778-NEP	Crop Diversification Project	Bardiya, Banke	Completed
Loan 2071-NEP	Community Livestock Development	Kailali, Baitadi, Nawalparasi	Ongoing
Loan 2092-NEP	Decentralized Rural Infrastructure and Livelihoods Project	Jumla, Baitadi	Ongoing
Loan 2102-NEP	Community Managed Irrigated Agriculture Sector Project	Kavre, Chitwan, Morang	Ongoing
Loan 2143-NEP	Gender Equality and Empowerment of Women Project	Baitadi	Ongoing
TA 3008-NEP	Institutional Reforms in the Agriculture Sector	Kathmandu and Lalitpur	Completed
TA 3536-NEP	Agriculture Sector Performance Review	Kathmandu and Lalitpur	Completed
TA 4397-NEP	Capacity Building in Rural Infrastructure Institutions	Kathmandu and Lalitpur	Completed
TA 4774-NEP	Livelihood Enhancement through Micro Irrigation Project	Kavre, Makwanpur	Completed
TA 4969-NEP	Strengthening Land Administration Services	Kathmandu and Lalitpur	Ongoing

EDR = Eastern Development Region, JFPR = Japan Fund for Poverty Reduction, NEP = Nepal, TA = technical assistance.

1. List of Organizations and Officials Consulted for Key Informant Interviews and Focus Group Discussions

35. In addition to ADB staff at headquarters and in the Nepal Resident Mission, the evaluation team received feedback from government central and district offices, other

⁴¹ ADB. 2005. *Technical Assistance for the Development and Dissemination of Water-Saving Rice Technologies in South Asia*. Manila (TA 6276-REG).

development partners, local and national nongovernment organizations, the private sector, and beneficiaries. Over 300 people from these various organizations were consulted for their feedback. The names of the main organizations consulted are listed below.

a. Government Organizations (central and district offices)

- (i) National Planning Commission
- (ii) MOAC
- (iii) MOF
- (iv) Ministry of Physical Planning and Works
- (v) Ministry of Land Reform and Management
- (vi) Department of Irrigation
- (vii) DOLIDAR
- (viii) National Agriculture Research and Development Fund
- (ix) Department of Agriculture

b. National Agricultural Research System

- (i) National Agriculture Research Council
- (ii) National Agriculture Research and Development Fund
- (iii) Phakribas Agriculture Center, Dhankuta District

c. National and Local Nongovernment Organizations

- (i) Agri-Business and Trade Promotion Multi-Purpose Co-operative, Anamnagar, Kathmandu
- (ii) Support Activities for Poor Producers of Nepal
- (iii) Center for Environmental and Agricultural Policy Research, Extension, and Development
- (iv) Development Project Service Centre
- (v) SOLVE–Nepal⁴²
- (vi) Sahara Nepal, Jhapa District
- (vii) Brighter Future Education Programme
- (viii) Multi-Dimensional Agriculture Development–Nepal, Chitwan

d. Development Partners

- (i) Department for International Development
- (ii) World Bank
- (iii) World Food Programme
- (iv) Food and Agriculture Organization, United Nations
- (v) Japan International Cooperation Agency
- (vi) International Rice Research Institute

e. Private Sector

- (i) Agro Enterprise Centre
- (ii) Seed Entrepreneurs Association of Nepal

⁴² SOLVE Nepal is a not-for-profit, non political NGO working for development in Nepal. It is based in Dhnakuta district.

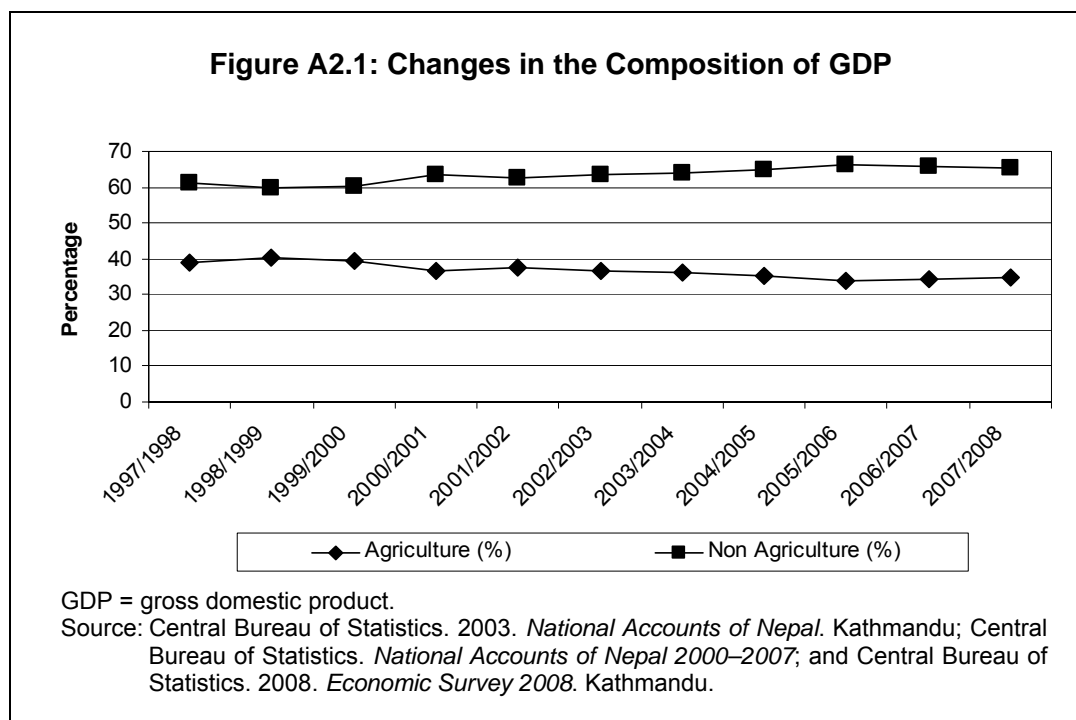
- (iii) National Seed Company Limited
- (iv) Agriculture Inputs Company
- (v) Nepal Food Corporation
- (vi) Commercial Agriculture Alliance, Dhankuta District

f. Beneficiaries' Associations

- (i) Groundwater users' associations, Jhapa District
- (ii) Vegetable Farmers Cooperative Group, Dhankuta District
- (iii) Bishwa Shanti Group, Dhankuta District
- (iv) Cooperative Society Sidhuwa
- (v) Tallo Krishak Group, Dhankuta District
- (vi) Rural Microfinance (RMF)–Samjhana Mahila Kendra, Dhankuta District
- (vii) RMF–Krishna Sahara Women's Group, Jhapa District
- (viii) Farmers group members, Kavre District
- (ix) Sichain farmer groups, Manohari District

CROP AND LIVESTOCK PRODUCTION, PRODUCTIVITY, AND GROWTH

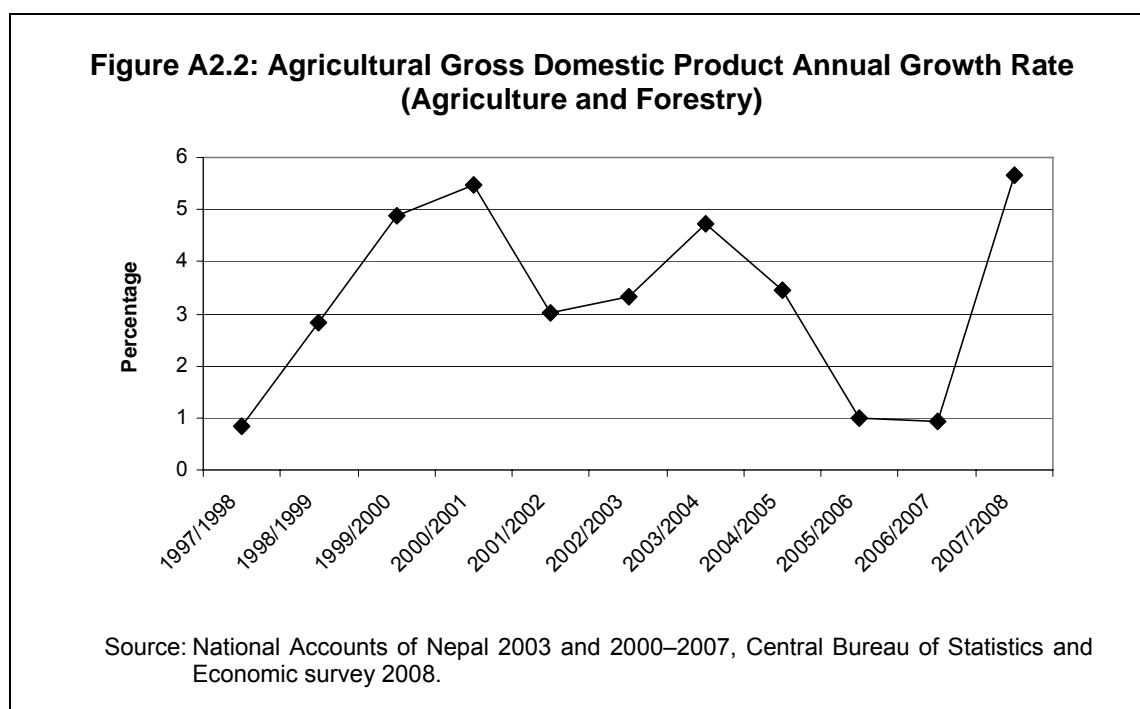
1. Agriculture is the largest and most important economic sector in Nepal, providing livelihoods for three fourths of the population. While the share of agriculture in the gross domestic product (GDP) has been slowly declining, from about 49% in 1990/1991 to 36.1% in 2007 (Figure A2.1), it remains the largest single sector of the economy. It employs 80% of the population and contributes to more than one third of total exports.¹ However, the ratio of the food trade to agricultural GDP is low at 17%, compared with the country's total merchandise trade to GDP ratio of 41.95%.²



2. The agricultural growth rate fluctuates significantly. During the evaluation period, a maximum 5% agricultural growth rate was recorded in 2003 and a minimum 0.94% in 2007, but in most years it fluctuated between 3% and 4% (Figure A2.2). The average agricultural growth rate during the Ninth Plan period (1997/1998–2001/2002) was 3.3% against the target of 4%. During the Tenth Plan period (2002/2003–2007/2008), the average growth rate was 2.67% against targets of 4.1% set for a normal scenario and 3.5% for an escalated-conflict scenario. In 2001, when the country's overall economy shrank by 0.6% overall, the agriculture growth rate was still positive at 3.01%. Per capita production is increasing, but slowly. Measured in dollar terms, it grew from \$220 in 1995/1996 to \$470 in 2007. Table A2.1 presents some key economic indicators for the evaluation period.

¹ Government of Nepal. 2007. *Economic surveys by the Government*. Kathmandu.

² Bajracharya, B.B. 2008. *International Trade*. Kathmandu. In Support for Inclusion of Food Security Objectives, Policies, Programmes, and Monitoring Mechanisms in the Poverty Reduction Strategy Paper. Interim (3 years) Plan of Nepal.

**Table A2.1: Key Economic Indicators, 1997–2007**

Indicator	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007 ^a
Income and Growth											
Per capita GDP (\$)				259.0	255.0	261.0	293.0	328.0	350.0	383.0	470.0
GNP per Capita (\$, in current prices)	238.0	230.0	234.0	250.0	259.0	259.0	267.0	294.0	324.0	348.0	386.0
Growth in Real GDP at Factor Cost (% change)	4.9	3.2	3.9	5.9							
Agriculture	4.1	1.0	2.7	5.0							
Industry	6.4	2.3	4.2	8.3							
Services	4.6	6.4	5.2	5.9							
GDP growth (% in constant prices)	—				—	0.1	3.9	4.7	3.1	2.8	2.5
Agriculture					3.01	3.32	4.72	3.45	0.99	0.94	5.65
Industry (manufacturing)					(5.3)	0.04	2.15	2.62	2.0	2.55	0.18
Services					—	(1.8)	3.7	6.8	2.5	4.7	4.1
Saving and Investment (% of GDP)											
Gross National Saving	16.0	16.2	16.9	26.9	24.2	23.8	27.3	28.4	28.2	28.2	32.0
Gross Domestic Investment	25.3	24.8	20.2	20.9							
Gross Fixed Capital Formation	21.7	22.1	21.7	19.2	19.6	19.9	20.3	19.9	20.9	20.3	21.1
Saving–Investment Gap	(9.4)	(8.7)	(3.4)	(3.8)							
Central Government Finance (% of GDP)											
Total Revenue (including grants)	12.7	12.3	11.6	12.3		12.0	13.4	13.4	14.1	13.1	14.0
Tax Revenue	8.7	8.6	8.5	8.9							
Other Revenues and Grants	3.9	3.7	3.1	3.4							
Total Expenditure (including net lending)	16.5	16.9	15.5	16.1		14.6	14.8	14.3	14.9	14.7	16.0
Regular Expenditures	7.4	7.7	7.8	7.8							
Development Expenditure and Net Lending	9.2	9.2	7.8	8.3							
Overall Fiscal Surplus/(Deficit)	(3.9)	(4.6)	(3.9)	(3.9)		(3.6)	(1.4)	(0.9)	(0.8)	(1.6)	(2.0)

Indicator	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007 ^a
Foreign Financing	2.5	2.8	2.6	2.8							
Domestic Financing	1.4	1.9	1.4	1.1							
Security Expenditure						2.6	2.8	2.8	3.1	3.0	2.5
Money and Inflation (Annual % change)											
Narrow Money (M1)	5.4	17.4	13.1	19.4							
Broad Money (M2)	11.9	21.9	20.8	21.8		4.4	9.8	12.8	8.3	15.4	14.0
Consumer Price Index	8.1	8.4	11.3	3.3		2.9	4.8	4.0	4.5	8.0	6.4
Food and Beverage Price Index	8.2	7.9	16.2	0.4							
GDP Deflator	7.3	4.0	8.6	4.5							
Balance of Payments											
Merchandise Trade Balance (% of GDP)	(25.3)	(20.5)	(15.3)	(14.7)		(12.0)	(14.3)	(15.0)	(15.0)	(17.0)	(17.0)
Exports (% of GDP)	8.1	9.2	10.5	13.7							
Imports (% of GDP)	33.4	29.6	25.8	28.4							
Balance with India (% of GDP)	(7.0)	(6.2)	(5.8)	(4.9)							
Current Account Balance (% of GDP)	(9.4)	(8.7)	(3.4)	(4.5)		4.0	2.4	2.7	2.0	2.2	0.5
Export Growth (\$, % change)	10.2	11.9	18.2	42.4							
Import Growth (\$, % change)	21.7	(12.4)	(10.3)	20.2							
Merchandise Export (\$) Growth (Annual % change)						(20.0)	(13.8)	14.8	11.4	2.6	4.2
Merchandise Import (\$) Growth (Annual % change)						(15.0)	7.1	15.9	12.5	17.8	11.3
Remittances (% of GDP)						10.7	11.5	11.5	11.5	15.5	14.2
External Payments Indicators											
International Reserves (\$ million)	647	712.0	791.0	981.0							
In month of imports of goods and NFS	4.2	5.2	6.3	6.3							
External Public Debt (% of GDP)	53.5	53.8	50.9	47.8		47.9	45.4	43.2	37.3	36.2	29.0
External Debt Service (% of exports of goods and NFS)	4.5	6.1	6.1	5.3		8.1	9.7	8.8	9.4	9.3	10.7
Gross Official Reserves (Including Gold, \$ million)						1031.0	1159.0	1447.0	1476.0	1833.0	1999.0
Month of Current year's imports goods and services						7.3	7.7	8.1	7.3	7.7	8.3
Memorandum Items											
Average Exchange Rate (NRs per \$)	57.0	61.9	67.9	69.0	73.7	76.7	77.9	73.8	71.9	71.9	70.6
Population (million)	21.0	21.5	22.0	22.6	23.2	23.2	23.7	24.7	25.3	25.9	26.4

GDP = gross domestic product, GNP = gross national product, NFS = nonfactor services, NRs = Nepalese rupees, US = United States.

^a Preliminary figures.

Source: Central Bureau of Statistics. 2007. *National Accounts of Nepal*. Kathmandu.

3. The composition of the agricultural gross domestic product has changed over the evaluation period with the increased contribution of horticultural crops. The contribution of cereal crops (33.1% in 2006/2007) is still high and declining only slowly, suggesting weak performance in terms of commercializing agriculture. The decline that has occurred has been only relative to the increasing importance of horticulture. Meanwhile, the contribution of livestock remained almost constant (Table A2.2).

Table A2.2: Composition of Agricultural Gross Domestic Product, 2000/2001 to 2007/2008
(constant 2000/2001 prices)

Subsector	2000	2001	2002	2003	2004	2005	2006	2007
Cereal and other crops	49.4	49.3	48.5	48.6	48.0	47.9	46.2	46.9
Livestock	25.7	25.9	25.6	25.6	25.4	25.6	26.3	25.5
Horticultural crops (fruits, vegetables)	16.8	16.8	17.9	18.1	19.0	19.2	20.3	20.7
Forestry	8.1	8.0	7.9	7.7	7.5	7.2	7.3	6.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Selected Indicators of Nepalese Agriculture and Population, Agriculture Business Promotion and Statistics Division, Ministry of Agriculture and Cooperatives, 2008.

4. Nepal has made remarkable progress in poverty reduction, but without substantial progress in agriculture the likelihood of achieving the Millennium Development Goal (MDG) on hunger and poverty by 2015 is remote. Despite a turbulent socioeconomic situation during the 11-year conflict, Nepal managed to reduce poverty at the rate of 3.7% per year between 1995/1996 and 2003/2004. Nonetheless, poverty in Nepal is widespread, with more than 8 million people still living below the poverty line.³

5. According to the most recent National Living Standards Survey, conducted in 2004, the headcount poverty rate declined from 42% in 1995/1996 to 31% in 2003/2004. A comparison of 1995/1996 and 2003/2004 data from these surveys shows the following results with regard to the poverty reduction:

- (i) Poverty declined in rural areas from 43.3% to 34.6%, but the rate of decline was slower than that of urban areas, where the fall was from 21.6% to 9.6% over the same period. Urban areas experienced greater reductions in both the depth and the severity of poverty.
- (ii) There has been decline in the poverty gap ratio from 0.120 to 0.075. This means that, on average, people below the poverty line have moved closer to it. During this period, real private consumption increased by 42% per capita, representing a high increment in income. However, poverty is not evenly spread either across the country or across social classes.
- (iii) In rural areas, poverty declined more in households with larger landholdings, suggesting increasing returns from land.
- (iv) People who are self-employed in agriculture (63% of the population in 2003/2004) tend to be the poor. This indicates the need for further intensifying support to this group.

6. While Nepal was self-sufficient in food until recently, it now has food deficits. Agriculture still depends heavily on weather conditions and is vulnerable to several types of natural disaster such as droughts, floods, landslides, windstorms, hailstorms, and cold snaps. Nepal's food production situation has remained highly unstable, mainly because of weather factors. Until around 1990, Nepal was a net exporter of food, but, during most of the 1990s, particularly in the period up to 1998/1999, the country was food deficit. A positive balance was attained for a short period between 1999/2000 and 2004/2005, but this has since been reversed, with a negative food balance in 2005/2006 and 2006/2007, mainly because of unfavorable weather. Even in times of positive food balance nationally, most mountain districts (12 out of 16) and more than one third of hill districts, suffer ongoing negative food balance.

³ According to the Central Bureau of Statistics, the poverty line in Nepal is NRs7,696 per person per year (average in 2003 Nepalese rupees).

7. Nepalese agriculture has been moving toward reversing agricultural decline over the past decade. While it is often characterized by low productivity and under-commercialization, the Agricultural Sector Performance Review of 2002 found that this situation had begun to turn around, particularly during the second half of the 1990s, thanks to a better policy and institutional environment in the sector. Table A2.3 presents an analysis of the strengths, weaknesses, opportunities, and risks in developing the sector.

Table A2.3: Strengths, Weaknesses, Opportunities, and Risks

Item	Factors Contributing to Results	Factors Detracting from Results
Factors internal to ADB operations	<p>Strengths to Build On</p> <p>ADB country strategies in line with government policies</p> <p>ADB is widely recognized as a lead development partner in the sector by the government, other key development partners and donors, and other key stakeholders.</p> <p>ADB is regarded as a reliable and responsive development partner with a long history of involvement in the sector.</p> <p>Ability to leverage major policy and institutional reforms</p>	<p>Weaknesses to Address</p> <p>Sector expertise at ADB in general has decreased over the years</p> <p>ADB may not be able to provide an appropriate amount of support for a lead development partner with less emphasis on agriculture at the corporate level.</p> <p>More thorough policy analysis is needed to clearly prioritize the sector. The Government lacks policy analysis capacity and so some sector policies may be unrealistic and inappropriate.</p> <p>Occasional failure to convince Government of need for policy reform</p> <p>Limited oversight and support capacity at ADB headquarters and Nepal Resident Mission</p>
Factors external to ADB operations	<p>Opportunities to Capitalize On</p> <p>Importance of the sector to the livelihoods of the poor and excluded</p> <p>Productivity is generally low, so there is large potential to increase it</p> <p>Rising food prices represent an opportunity for farmers.</p> <p>Geographical advantage in terms of seasonal and altitudinal production niches for high-value crops</p> <p>Large markets for agricultural products in neighboring countries including India and the People's Republic of China</p> <p>Increased purchasing power and possibility of small-scale investment by rural population with increased remittances in recent years</p> <p>Favorable trade policies for Nepal under World Trade Organization agreement.</p>	<p>Risks to Mitigate</p> <p>Failure to bring marginalized into mainstream</p> <p>Limited government capacity for policy and problem diagnosis analysis</p> <p>Low investment and failure to identify or develop suitable technology to improve factor productivity</p> <p>Negative effect of price rises on food security of poor; failure to meet Millennium Development Goal 1</p> <p>Rising costs of agricultural inputs</p> <p>Custom officials' lack of transparency</p> <p>Limited rural connectivity is one of the limiting factors in the expansion of commercialization and diversification.</p> <p>Agricultural production and productivity mostly dependent on variable weather factors</p> <p>Limited income-earning opportunities and lack of suitable skills among rural poor</p>

ADB = Asian Development Bank.

KEY MACRO AND SECTOR CHALLENGES, 1997–2007

1. Nepal's Tenth Plan, which is also the country's Poverty Reduction Strategy Paper, rests on four pillars: (i) faster and pro-poor economic growth, (ii) equitable access to social and economic infrastructure and resources for poor and marginalized groups, (iii) social inclusion and targeted programs, and (iv) improved governance. Building these pillars without an armed conflict would have been challenging enough, but the conflict made it much more daunting. Taking each pillar in turn, the following questions needed to be addressed.

2. **Pillar 1.** How could Nepal tackle problems of low and fluctuating economic growth when normal market functions were seriously compromised by military and political conflict. How could it strengthen a private sector that was already probably the weakest in South Asia—beset, as it was, by problems of “poor infrastructure, overly bureaucratic public administration, over-regulation, capricious and ineffective enforcement of existing laws and regulations, corruption, inadequate consultative mechanisms for addressing labor concerns, and a perceived lack of clarity and vision in government policy and strategy.”¹ The requirement to make private sector-led growth pro-poor added an additional complication, not least because the very concept of pro-poor growth was one that still attracted considerable controversy.

3. **Pillar 2.** How could Nepal provide all members of society with equitable access to sustainable livelihood resources—namely human capital (skills, knowledge, ability to labor, and good health); social capital (social resources upon which people can draw for livelihood support); natural capital (natural resource stocks from which to derive resource flows and services useful for livelihoods); physical capital (the basic infrastructure and producer goods needed to support livelihoods); and financial capital (the financial resources people use to achieve their livelihood objectives).

4. **Pillar 3.** How could Nepal dismantle centuries-old systems of discrimination that have kept most of the population—almost all women and all the poor and marginalized groups—at the bottom of the social and economic order and seriously compromised any prospect of broad-based progress toward the Government's social and economic objectives.

5. **Pillar 4.** How could Nepal tackle the endemic problems of weak governance, political instability, lack of transparency, corruption, abuse of power, elite capture of benefits, etc.

A. Sector Challenges

6. The four pillars represent overarching goals for achieving the Government's aim of broadly based economic growth, social inclusiveness, and improved governance structures. This section looks at the sector growth and development part of the agenda, without which little could be achieved in terms of improving the lot of the poor and excluded. Six strategic challenges are identified and discussed below.

1. Raising Factor Productivity

7. It was absolutely crucial to improve the low land and labor productivity that characterizes Nepalese agriculture but to do so in an environmentally sustainable fashion. Earlier attempts to expand production brought deforestation and soil mining in the *Terai* and soil erosion and acidification in the hills and mountains. Investment in human and physical capital was needed to

¹ ADB. 2004. *Country Strategy and Program (2005–2009): Nepal*. Manila.

increase production in a sustainable manner, and this required that farmers, particularly the excluded, have access to credit. Raising factor productivity was a major focal point of government policy over the period, explicitly in terms of land productivity, but also implicitly in terms of labor productivity. All sector policies show a strong commitment to environmental sustainability, such that this is an explicit or implicit commitment in all policy aspirations, including those that impinge on factor productivity.

2. Commercializing the Sector

8. Agricultural commercialization is essential to addressing the rural poverty problem, and poor connectivity is a key obstacle to this, particularly outside the *Terai*, where difficult terrain and low road density impede the shipping of inputs and outputs. The challenge here is to improve connectivity through the provision of carefully targeted transport links and market infrastructure, paying rigorous attention to comparative advantage (e.g., that hill and mountain districts can supply horticultural produce to bordering Indian cities out of season, when supply is low and prices attractive) and the necessity of investing in market development. The potential exists to develop niche markets, but this would require strict adherence to market disciplines in terms of quality, quantity, and the timing of delivery. The ninth and tenth plans and the agricultural policy all place strong emphasis on the Agriculture Perspective Plan (APP), and hence on commercialization, but they, like the APP itself, are short on details and suffer from the inadequacies listed earlier. Agribusiness is given high prominence, as in many cases the problem is not seen as markets, but as marketing. It is noted, however, that the domestic market is small and segmented by an inadequate transport network, so agricultural roads became an input investment priority specifically to improve market connectivity. Other issues that need to be addressed in commercialization are (i) the problem that the exchange rate between the Nepalese and Indian rupees is fixed by Nepal Rastra Bank at a level that permits Indian agricultural products to be sold more cheaply than their Nepalese equivalents in the Nepalese market; (ii) the need to reduce transaction costs in exporting off-season horticultural produce to India; (iii) the need to improve the cold-store chain, including a mechanism to permit farmers to obtain credit against stored produce, so that they are not forced to sell immediately after the harvest, when prices are at their lowest.

3. Improving the Enabling Environment

9. An enabling policy environment for sector growth is one that actively seeks to improve the conditions for participation and investment in agricultural enterprises and services by farmers, entrepreneurs, and civil society. Emerging as it was from decades of state control, Nepal urgently required liberal policies, institutions, and infrastructure. Many factors would have to be addressed to achieve this: laws, regulations, property rights, enforcement mechanisms, institutions, services, physical and social infrastructure, information flows, public goods, the fiscal regime, macroeconomic policy, sector policy, and public security—indeed, anything that affected the financial or opportunity cost and risk of doing business. The weakest link in the chain of government actions is the lack of enforcement of laws and regulations. The Government had to concentrate on this area to support a sustainable agricultural production system. Unfortunately, enforcement tended to be regarded as a mere policing activity, thus enhancing the prospects of failure, because this approach creates multiple opportunities for rent-seeking. Effective intervention will require capacity building among those responsible for enforcement, improved advocacy and awareness building, and, above all, close coordination with stakeholders, who have the strongest interest in enforcement. An example of the type of challenge that must be met comes from deregulating fertilizer, where the necessary laws and

regulations were put in place but enforcement mechanisms were weak, allowing the problems of poor-quality fertilizers referred to elsewhere in this report.

4. Developing Institutions

10. Some of the organizations responsible for implementing policy evolved throughout the period along with policy. The Nepal Agricultural Research Council was restructured, the Agricultural Inputs Corporation was radically downsized, and the National Agriculture Research and Development Fund was created. A systematic institutional analysis was needed for the policy reform process to establish whether the organizations and “rules of the game” were appropriate to the newly redefined role of government, but completing this was the exception, not the rule. A great deal of institutional reform has taken place in Nepal since 1997. Broadly categorized, this took three directions: (i) developing a new public-private partnership approach, (ii) decentralizing and devolving authority, and (iii) reforming central public institutions.

B. Strengthening the Partnership Approach

11. Various policy pronouncements during the period called for a new participatory approach to enable government to work in partnership with farmers, NGOs, and the private sector. Making such an approach work in practice presented a huge challenge, since government–farmer relations had historically been very top–down, with the farmer viewed as a mere recipient of advice and technology. In the case of government, NGOs, and the private sector, the relationship had traditionally been one of mutual distrust and suspicion—often well justified. However, the words “participatory” and “partnership” began to appear with increasing frequency in policy documents from the early 1990s, and new approaches such as the farmer field school, participatory varietal selection, and participatory plant breeding began to be tried out. As noted above, the National Agricultural Policy was much more favorably inclined toward partnership with the private and NGO sectors than the APP had been.

12. Also requiring urgent attention was to reconnect with many development partners. By the beginning of the evaluation period, overseas development assistance (ODA) to agriculture was losing ground globally as a donor priority. Worldwide, assistance to agriculture fell from \$6.2 billion in 1980 to \$2.3 billion in 2002 (at 2002 prices), with most of this reduction occurring during the 1990s. Since total ODA flows increased by 65% over the same period, the sector’s share of total ODA fell even faster than its value, from a peak of 17% in 1982 to a mere 4% in 2002.² Nepal was not isolated from this trend, as donors and development partners shifted attention away from agriculture. Part of the reason, it must be added, was donor fatigue, caused by the consistent underperformance of investments in agricultural research, extension, infrastructure, etc. It became a major challenge to use agricultural aid more effectively and efficiently to encourage renewed prioritization of the sector.

C. Improving Cross-Sectoral Interaction

13. There were three levels at which the evolving policy agenda of the period had to be coordinated. Changes in macro policies had to be reviewed by sector policy analysts, and their principles had to be applied to sector policies and programs, with the relevant body notified of conflicts between policy instruments. The second level is inter-sectoral, and it relates to the issue of coordination between departments under different ministries. Departmental staff report to their parent ministries, not to departments under other ministries. For example, if an irrigation

² DFID. 2004. *Official Development Assistance to Agriculture*. London.

project is implemented by the Department of Irrigation (DOI), it has no great incentive to coordinate with the Department of Agriculture (DOA). Locally, in most cases there are unresolved issues to be addressed concerning the relationships between representatives of line ministries and those of local government to whom a good deal of authority has now been devolved. This is not the case with agriculture, however, as all three key components of the sector—agricultural extension services, livestock services, and district technical offices—have all been devolved to district development committees (DDCs). This could have improved coordination had the country been running normally and the DDCs been led by elected leaders. However, elections did not take place, and local development officers stood in for DDCs. In many cases, local development officers were too weak to coordinate with other line ministry specialists, while in other cases they allowed their own interests to dominate the agenda. In both cases, coordination remained suboptimal.

D. Selected Agricultural and Food Security Indicators for Nepal and Neighboring Countries

Table A3.1: Agricultural Sector Indicators
(\$, in constant 2000 prices)

Indicator	Bangladesh	India	Nepal	Pakistan	PRC	Sri Lanka
Rice Yields (t/ha) (mean value 1997–2007)	3.50	3.00	2.60	3.00	6.30	3.50
Per capita GDP	371.00	538.00	240.00	547.00	1,441.00	976.00
Agricultural GDP/head of population in agriculture	164.00	201.00	98.00	242.00	241.00	335.00
Agriculture (% of GDP)	23.00	19.00	38.00	22.00	11.00	15.00
Income Inequality (Gini coefficient)	0.32	0.33	0.37	0.33	0.45	0.33
Land Inequality (Gini coefficient)	0.62	0.60	0.49	0.60	—	0.38
Agricultural value added per worker	246.00	337.00	198.00	580.00	252.00	713.00
1991	313.00	406.00	208.00	696.00	378.00	746.00
2003	27.20	20.50	5.10	20.00	50.00	4.60
% change						

— = not available, GDP = gross domestic product, ha = hectare, t = metric ton, PRC = People's Republic of China.

Sources: Calculated from: (i) FAO. 2008. *FAO Statistical Yearbook*. Rome; (ii) FAO. 2007. *The State of Food Insecurity in the World, 2006*. Rome; and (iii) FAO. 2008. *FAOSTAT Database*. Rome.

Table A3.2: Food Security Indicators, 2002–2004

Country	Production (1999–2001 =100)	Food Access Indicators (consumption) ^a		
		Dietary Energy Consumption (kCal/capita/day)	Dietary Protein Consumption (grams/capita/day)	Dietary Fat Consumption (grams/capita/day)
Bangladesh	100	2,200 (+10.0)	50 (+16.3)	25 (+16.3)
India	98	2,470 (+1.2)	63 (+6.8)	51 (+6.8)
Nepal	103	2,430 (+9.3)	65 (+12.1)	36 (+12.1)
Pakistan	98	2,320 (-4.9)	64 (+1.6)	66 (+1.6)
PRC	111	2,930 (+0.7)	91 (+18.2)	71 (+18.2)
Sri Lanka	98	2,390 (+4.4)	56 (+7.7)	46 (+7.7)

PRC = People's Republic of China.

^a Figures in parenthesis show percentage change since 1995–1997.

Source: Calculated from FAO. 2008. *FAOSTAT Database*. Rome.

Table A3.3: Comparison of Headcount Poverty in Nepal, 1995–1996 and 2003–2004 (%)

Poverty Head Count Rate (Population below the poverty line)	1995–1996	2003–2004	Change
Nepal	41.8	30.8	(26.0)
By rural urban divide			
Rural	43.3	34.6	(20.0)
Urban	21.6	9.6	(56.0)
By ecological regions			
Mountain	57.0	32.6	(43.0)
Hill	40.7	34.5	(15.0)
Terai ^a	40.3	27.6	(32.0)
By NLSS region			
Kathmandu	4.3	3.3	(23.0)
Other urban	31.6	13.0	(59.0)
Rural Western Hill	55.0	37.4	(32.0)
Rural Eastern Hill	36.1	42.9	19.0
Rural Western Terai ^a	46.1	38.1	(17.0)
Rural Eastern Terai	37.2	24.9	(33.0)
By Development Region			
Eastern	38.9	29.3	(25.0)
Central	32.5	27.1	(17.0)
Western	38.6	27.1	(30.0)
Mid-western	59.9	44.8	(25.0)
Far-western	63.9	41.0	(36.0)
By wage earner			
Agriculture	55.9	53.8	(4.0)
Professional	8.3	2.1	(74.0)
Other	39.7	28.8	(28.0)
By employment sector			
Agriculture	43.1	32.9	(24.0)
Manufacturing	41.4	31.2	(25.0)
Trade	32.2	11.1	(66.0)
Services	25.3	14.4	(43.0)
By Gender of the head of household			
Female-headed	41.6	23.8	(43.0)
Male Below 25 Years	40.5	32.5	(20.0)
Male 26–45 years old	43.8	32.5	(26.0)
Male 46 + Years	40.2	31.6	(21.0)
Poverty gap	11.8	7.5	(36.0)
Rural	12.1	8.5	(30.0)
Urban	6.6	2.2	(67.0)
Squared poverty gap	4.7	2.7	(42.0)
Rural	4.8	3.0	(37.0)
Urban	2.7	0.7	(73.0)
International poverty rates in Nepal (International poverty line)			
\$ 1 a day	33.5	24.1	(9.4)
\$ 2 a day	77.6	68.5	(9.1)

NLSS = Nepal Living Standards Survey.

^a The *Terai* region is a 26–32 kilometer wide belt of alluvial and fertile plain in southern Nepal that extends from the westernmost part of the country to the eastern limit and covers about 17% of the total land area.

Source: Central Bureau of Statistics. 2005. *Poverty Trends in Nepal* (1995–1996 and 2003–2004). Kathmandu.

Table A3.4: ADB Support to Intended Outcomes Classified by Major Challenges

Sector Challenges	ADB's Support to Address the Sector Challenges
Sustainably Raising Factor Productivity	Commercial Agriculture Development (CAD) Project. Improve the efficiency of the production of high-value crops such as vegetables, fruits, tea, and spices in the project area.
	Community Groundwater Irrigation Sector (CGIS) Project. Sustainably increase agricultural productivity while improving the incomes of small farmers through participatory, demand-driven, and integrated group shallow tube well (STW) development and developing the capacity of water users' groups (WUGs); provide credit for investment in STWs and to purchase agricultural inputs; support measures to ensure the environmental sustainability of project activities, including the training of Department of Agricultural Development staff and farmers in integrated pest management and the proper use of agricultural chemicals; and monitor the quality of water and soils and the groundwater table.
	Community Livestock Development (CLD) Project. Improve men's and women's food security, nutrition, income, and employment from livestock production and small livestock-related enterprises, which entails raising labor productivity; identify 15 livestock improvement models as suitable for poor smallholder farmers; encourage forage-led development by importing new genetic stock, demonstrating improved species, showing farmers how to manage them, and establishing a viable forage seed industry.
	Community-Managed Irrigated Agriculture Sector (CMIAS) Project. Improve farmer skills in crop productivity through self-sustaining and self-reliant farmer groups; develop WUG capacity to support this end; and support agricultural extension services in the subproject area to promote the adoption of high-yielding, improved varieties of crops and their diversification.
	Economic and Social Inclusion of the Disadvantaged Poor (ESIDP) Project through Livelihood Enhancement with Micro-Irrigation. Bring micro-irrigation delivery mechanisms into operation to benefit at least 2,500 poor households.
	Improving the Livelihoods of Poor Farmers and Disadvantaged Groups (ILPFDA) Project. Help poor farmers and disadvantaged groups to engage in out-of-season vegetable and fruit gardening and high-value production, particularly with micro irrigation.
	Promoting Pro-Poor and Gender-Responsive Service Delivery (PPGRSD) Project. Implement homestead agricultural activities with quick impact, thereby improving the livelihoods of poor rural men and women; strengthen line agencies and local bodies; and identify an approach that effectively promotes the participation of disadvantaged groups while systematically mainstreaming gender.
	Rural Microfinance (RMF) Project. Improve the socioeconomic status of women and poor men by increasing their access to financial services for viable farm and off-farm activities.
	Second Agriculture Program. Promote the efficient use of water resources by reducing and removing capital cost subsidies for private shallow tube wells.
Commercializing Agriculture	CAD Project. Improve the efficiency of marketing and processing high-value crops such as vegetables, fruits, tea, and spices in the project area; increase public and private investment in commercial agriculture; include poor and semi-commercial stakeholders in commercial agriculture; and make market information available to farmers in a timely fashion.
	Crop Diversification Project. Increase farmers' incomes by promoting the production and marketing of crops with a particular focus on secondary crops in areas with high potential and gradually commercialize agriculture through crop diversification in the project area, starting with market research to establish what can profitably be sold and in which markets.

Sector Challenges	ADB's Support to Address the Sector Challenges
	<p>CGIS Project. Construct new farm-to-market roads and improve existing ones.</p> <p>CLD Project. Provide training for the Directorate of Livestock Marketing Promotion in marketing, market development, market information systems, and quality assurance and control systems. Train Department of Food Technology and Quality Control and Department of Livestock Services officers in meat inspection, milk and meat quality, and quality control and assurance systems, and improve quality control laboratories. Develop small, localized processing and marketing of livestock products and help entrepreneurs to establish small feed mills in intensive livestock production areas, with emphasis on using forage legumes to replace imported protein-rich ingredients.</p> <p>Decentralized Rural Infrastructure and Livelihood (DRIL) Project. Construct new district and village roads, rehabilitate existing ones, and rehabilitate and upgrade main trails and construction new bridges on them.</p> <p>ILPFDA Project. Providing training in growing commercial crops with comparative advantage and animal husbandry, and assist the development of agribusinesses.</p> <p>RMF Project. Support beneficiaries' access to markets.</p> <p>Second Agriculture Program. Promote competitive agricultural produce markets by stopping the subsidized distribution of grain in urban and accessible areas by the Nepal Food Corporation (NFC), complete and approve a plan for reforming the organization of NFC, and develop rural infrastructure.</p> <p>Third Livestock Project. Establish small and medium-sized enterprises for processing and marketing milk and meat.</p>
Improving the Enabling Environment	<p>Gender Equality and Empowerment of Women (GEEOW) Project. Increase stakeholders' knowledge of their legal rights and obligations through a large awareness-raising campaign in the project area on the issues of gender; caste; ethnicity; safe migration and trafficking; domestic violence; sexual offenses; polygamy; child marriage; birth, citizenship, and marriage certificates; property, inheritance, and water rights; and labor standards and debt bondage, etc.</p> <p>Second Agriculture Program. Assist in the deregulation of fertilizer by (i) reducing and removing fertilizer subsidies, (ii) deregulating fertilizer prices, (iii) abolishing the dealership regulations of the Agricultural Inputs Corporation (AIC), (iv) adopting appropriate legislation to regulate the quality of fertilizers on the market, (v) eliminating the municipality transportation tax, (vi) eliminating customs duties on imported diesel engines and pump sets for irrigation, (vii) promoting competitive agricultural produce markets by stopping the subsidized distribution of grain in urban and accessible areas, (viii) completing and approving a plan for reforming the organization of NFC, (ix) strengthening institutional and legal frameworks for the sector by approving and implementing a plan to privatize AIC's seed business, adopting appropriate regulations to ensure seed certification and quality control, and (x) promoting the adoption of the Financial Intermediation Act.</p> <p>Institutional Reforms in the Agricultural Sector Project. Help the Government to facilitate its institutional reforms in the agricultural sector in line with the Agricultural Perspective Plan (APP) and strengthen management capacity for local infrastructure development.</p> <p>Agriculture Sector Performance Review Project. Conduct an analytical review of the current situation and performance of agriculture in Nepal, assess the progress and impact of the Government reforms, and help the Ministry of Agriculture and Cooperatives (MOAC) prepare specific medium-term action plans for agricultural development in line with the APP.</p> <p>CGIS Project. Improve training to strengthen capacity in the Department of Irrigation (DOI) to improve drilling technology and knowledge of pump maintenance and capacity in Nepal Rastra Bank to monitor and supervise participating financial institutions (PFIs). Train PFIs to strengthen their capacity to deliver credit to beneficiaries and collect repayment.</p>

Sector Challenges	ADB's Support to Address the Sector Challenges
	<p>CLD Project. Rural Microfinance Development Center or microfinance trainers provide capacity building to 100 microfinance institutions (MFIs), focusing on existing institutions. In districts currently without MFIs, they help nongovernment organizations (NGOs) or farmer cooperatives to become MFIs. Train participating NGOs to improve their social mobilization and group-strengthening capabilities; DLS staff to improve their extension capabilities; key district development committee (DDC) staff in management, monitoring and evaluation; and members of district and village in gender awareness, microfinance, and monitoring and evaluation.</p> <p>CMIAS Project. Monitor and advise on continuing reforms in agriculture and water resources while supporting practical institutional actions to improve the delivery of farmer-managed irrigation systems.</p> <p>DRIL Project. Establish capacity to sustainably maintain rural road networks; strengthen the decentralized management of rural infrastructure development, implementation, and monitoring; and strengthen central management to provide national direction, guidance, support, and monitoring to local government.</p> <p>ESID Project. Produce draft policy and implementation guidelines for promoting micro-irrigation for the poorest.</p> <p>PPGRSD Project. Institutionalize an approach to pro-poor and gender-responsive service delivery; improve the organizational capacity of community organizations; strengthen line agencies and local bodies; and identify an approach that effectively promotes the participation of disadvantaged groups and systematically mainstreams gender.</p> <p>RMF Project. Institutionally strengthen executing and implementing agencies to enable the latter to become financially viable.</p> <p>Second Agriculture Program. Develop a medium-term strategy for agriculture in MOAC, facilitate the adoption of this strategy with an investment plan for the sector in line with the APP, and reform the organization of AIC.</p>
Developing Institutions	<p>Strengthening Land Administration Services (SLAS) Project. Produce a more reliable, fair, and sustainable land administration and management process by modernizing and improving business processes at the Ministry of Land Reform and Administration and developing a road map for a comprehensive national land policy to improve the effectiveness of land administration.</p> <p>Third Livestock Project. Build technical and management capacity in DLS by training for the delivery of quality livestock extension services.</p>
Strengthening the Partnership Approach	<p>Crop Diversification Project. Emphasize the active participation of the private sector and promote private extension services and client-oriented research.</p> <p>CLD Project. Help DLS to work in partnership with local NGOs, DDCs, and village development committees (VDCs) to undertake poverty and social mapping to identify and target poorer and disadvantaged communities.</p> <p>CMIAS Project. Develop participatory planning and beneficiary mobilization for sustainable irrigation development and provide agricultural support by designated government agriculture extension and irrigation staff and the private sector or NGOs.</p> <p>DRIL Project. Create effective beneficiary participation in planning, implementation, monitoring, and maintenance to achieve poverty-targeted impact from rural infrastructure investments.</p> <p>ILPFDA project. Deliver functional literacy and numeracy to the poor to enable them to participate in development activities of the district (VDC, DDC, disadvantaged people's lobby groups, etc.).</p> <p>PPGRSD Project. Develop the capacity of poor women and men, line agencies, and local elected bodies to promote pro-poor and gender-responsive service delivery in agriculture and livestock.</p>

Sector Challenges	ADB's Support to Address the Sector Challenges
	<p>Third Livestock Project. Refine, apply, and manage participatory livestock development strategies and approaches; develop modalities for collaboration with NGOs, the private sector, and PFIs to implement livestock programs; and organize training for the staff of partner NGOs, private enterprises, and PFIs.</p>
Improving Cross-Sectoral Interaction	<p>CGIS Project. Help beneficiaries to obtain credit from PFIs and extension services from the Department of Agriculture (DOA) and monitor the program jointly with DOI and DOA.</p> <p>CMIAS Project. Encourage collaboration between Ministry of Water Resources and DOA in the provision of agricultural extension.</p> <p>PPGRSD Project. Identify institutional constraints and opportunities for developing a model for mainstreaming poverty and gender across sectors.</p>

THE AGRICULTURE AND NATURAL RESOURCES SECTOR: ASSESSMENTS AND RATINGS

A. Findings of the Top–Down Assessment

1. The top–down assessment is a broad evaluation of Asian Development Bank (ADB) assistance with performance assessed regarding (i) ADB’s strategic positioning of development assistance, (ii) the overall contribution of this assistance to sector development results, and (iii) the quality and responsiveness of ADB’s institutional performance. This part of the assessment and its associated ratings were linked with the expected intermediate outcomes gauged against the indicators listed in ADB’s strategic focus, as stated in the Country Partnership Strategy 2005–2009. In addition to outcome indicators, an assessment of the impact of total development assistance to the sector was conducted, based on aggregate data such as growth rates in production, agricultural gross domestic product, incomes, and any improvements in food security. The contribution of ADB to changes in sector development was also assessed, where feasible, though it was recognized that there were attribution difficulties because of factors external to specific investment projects.

2. The top-down performance was rated *successful*, based (i) *substantial* but on the low side rating on strategic positioning, selectivity and relevance; (ii) *substantial* contribution toward the sector development; and (iii) *modest* rating on ADB’s institutional performance. This also implies there are areas for improvement e.g. improve selectivity and strategic focus within the sector to maximize ultimate development effectiveness of ADB assistance.

B. Findings of the Bottom-Up Assessment

3. The bottom-up assessment is based on the five core evaluation criteria, namely: (a) relevance (the degree to which the objectives of a program are valid and pertinent to the needs and priorities of the various stakeholders), (b) effectiveness (the extent to which the program achieved its planned results), (c) efficiency (the optimal transformation of inputs into outputs), (d) sustainability (the durability of positive program results after the termination of the technical cooperation channelled through it), and (e) impact (the program’s overall and long-term effects). The overall rating is *partly successful*, based on relevant, less effective, less efficient, and likely sustainability of outputs and outcomes but on the low side (Table A4).

Table A4: Bottom-Up Assessment of the Sector Assistance

Project No.	Project Name	Type	Status	Expected Closing Date/ Actual Closing	Bottom-Up Evaluation Criteria					Overall Successful	PCR/TCR Rating
					Relevance	Effectiveness	Efficiency	Sustainable	Impact		
Agricultural Production and Market											
1778	Crop Diversification	Loan	Active	31-Dec-07	Relevant	Less Effective	Less Efficient	Sustainable (low side)	Modest	Partly Successful	Not Available
4774	Economic and Social Inclusion of the Disadvantaged Poor Through Livelihood Enhancement with Micro-Irrigation	TA	Closed	28-Aug-08	Relevant	Effective	Efficient	Sustainable	Substantial	Successful	Successful
0063	Commercial Agriculture Development	Grant	Active	30-Jun-13	Relevant	Less Effective	Less Efficient	Less likely Sustainable	Likely Modest	Partly Successful	Not Available
9101	Improving the Livelihoods of Poor Farmers and Disadvantaged Groups in the Eastern Development Region	Grant	Active	31-Jul-10	Relevant	Less Effective	Less Efficient	Likely to Less Likely Sustainable	Modest to Substantial	Partly Successful	Not Available
Subsector Rating					Relevant	Less Effective	Less Efficient	Sustainable (low side)	Substantial (low side)	Partly Successful	
Agriculture and Rural Sector Development											
1604 ^a	Second Agriculture Program	Loan	Closed	31-Dec-00	Relevant	Effective	Efficient	Sustainable	Modest	Successful	Successful
1650	Rural Microfinance	Loan	Closed	15-Aug-07	Relevant	Effective	Efficient	sustainable	Substantial	Successful	Successful
2092	Decentralized Rural Infrastructure and Livelihood	Loan	Active	31-Oct-11	Relevant	Less Effective	Less Efficient	Sustainable (low side)	Modest to Substantial	Partly Successful	Not Available
2143	Gender Equality and Empowerment of Women	Loan	Active	30-Jun-10	Relevant (low side)	Less Effective	Less Efficient	Less Likely Sustainable	Modest	Partly Successful	Not Available
3008	Institutional Reforms in the Agriculture Sector	TA	Closed	31-Mar-01	Relevant	Effective	Efficient	Sustainable	Substantial	Successful	Successful
3536	Agriculture Sector Performance Review	TA	Closed	31-Jul-02	Relevant	Effective	Efficient	Sustainable	Substantial	Successful	Successful

Project No.	Project Name	Type	Status	Expected Closing Date/ Actual Closing	Bottom-Up Evaluation Criteria					Overall Successful	PCR/TCR Rating
					Relevance	Effectiveness	Efficiency	Sustainable	Impact		
4397	Capacity Building in Rural Infrastructure Institutions	TA	Active	31-Dec-09	Relevant	Effective	Less Efficient	Sustainable (low side)	Modest	Partly Successful	Not Available
4969 ^b	Strengthening Land Administration Services	TA	Active	31-Dec-08	Relevant	Less Effective	Efficient	Sustainable (low side)	Modest	Partly Successful	Not Available
	Subsector Rating				Relevant	Effective	Less Efficient	Sustainable (low side)	Modest to Substantial	Partly Successful	Not Applicable
Irrigation, Drainage, and Flood Protection											
1609	Community Groundwater Irrigation Sector	Loan	Closed	21-Jan-08	Relevant	Less Effective	Efficient	Sustainable	Substantial	Successful	Successful
2102	Community-Managed Irrigated Agriculture Sector	Loan	Active	30-Sep-12	Relevant	Less Effective	Efficient	Sustainable (low side)	Modest to Substantial	Partly Successful	Not Available
	Subsector Rating				Relevant	Less Effective	Efficient	Likely Sustainable	Modest to Substantial	Partly Successful	Not Applicable
Livestock											
2071	Community Livestock Development	Loan	Active	30-Jun-10	Relevant	Effective	Efficient	Likely Sustainable	Substantial	Successful	Not Available
2851	Third Livestock Development	TA	Closed	31-Dec-03	Relevant	Effective	Efficient	Likely Sustainable	Substantial	Successful	Successful
4353	Promoting Pro-Poor and Gender-Responsive Service Delivery	TA	Closed	15-Dec-06	Relevant	Effective	Less Efficient	Less Likely Sustainable	Modest	Partly Successful	Partly Successful
	Subsector Rating				Relevant	Effective	Efficient	Sustainable	Substantial	Successful	Not Applicable
	Bottom-Up Overall Sector Rating				Relevant	Less Effective	Less Efficient	Sustainable (low side)	Substantial (low side)	Partly Successful	Not Applicable

PCR = project completion report, TA = technical assistance, TCR = technical assistance completion report.

^a Rating is based on project performance evaluation report conducted by the Operations Evaluation Department in 2005.

^b This TA project was in the process starting the project activities while the evaluation mission was undertaken in July 2008.

Source: Evaluation Mission Findings.

**MAJOR EXTERNAL ASSISTANCE TO THE AGRICULTURE AND RURAL DEVELOPMENT
IN NEPAL, 1997–2007**

Funding Source	Project Title	Amount (\$ million)		
		Grant	Loan	Date ^a
Asian Development Bank	Third Livestock Development ^b	0.75		1997
	Second Agriculture Program	0.00	50.00	1998
	Community Groundwater Irrigation	0.00	30.00	1998
	Institutional Reforms in the Agriculture Sector ^b	0.90		1998
	Monitoring of the Agriculture Perspective Plan ^{b, d}	0.15		1999
	Rural Microfinance	0.00	20.00	1999
	Crop Diversification	0.50	11.00	2000
	Agriculture Sector Performance Review ^b	0.60		2000
	Community Livestock Development ^e	0.40	20.00	2003
	Watershed Rehabilitation and Management Community-Managed Irrigation (Central and Eastern Basins) Sector	0.60		
	Decentralized Rural Infrastructure and Livelihoods ^e	0.83	40.00	2004
	Community-Managed Irrigated Agriculture Sector	0.60	20.00	2004
	Capacity Building in Rural Infrastructure Institutions ^b	0.40		2004
	Promoting Pro-Poor and Gender-Responsive Service Delivery ^b			2004
	Commercial Agriculture Development	18.70 ^f	-	2006
	Improving the Livelihoods of Poor Farmers and Disadvantaged Groups in the Eastern Development Region	1.00	-	2006
	Economic and Social Inclusion of the Disadvantaged Poor Through Livelihood Enhancement with Micro-Irrigation ^b	0.45		2006
	Rural Reconstruction and Rehabilitation Sector Development Project ^c	0.50	-	2007
	Strengthening Land Administration Services ^b	0.35		2007
	Gender Equality and Empowerment Project	-	10.00	2004
Optimizing Productivity of Poor Water User Associations	1.00	-	2003	
Australia	Community Forestry (Phase 5)	7.80	-	1997
	Livestock Development	0.75	-	1997
Canada	Community Shallow Tubewell Development (Part A)	2.80	-	1999
Denmark	Natural Resource Management	19.10	-	1998
European Union	Irrigation Development Program	9.40	-	1997
	Bagmati Watershed Management (Phase 2)	15.00	-	1997
Food and Agriculture Organization	Integrated Pest Management for Rice Cultivation (Phase 1)	0.30	-	1997
	Assistance for Olive Production (Phase 1)	0.30	-	1997
	Participatory Upland Conservation in Gorkha District	0.50	-	1998
	Integrated Pest Management for Rice Cultivation (Phase 2)	1.00	-	1999
	Integrated Pest Management (Phase 3)	1.20	-	2003
	Promotion of Olive Production and Consumption (Phase 2)	1.10	-	2004
	Support to the National Integrated Pest Management Program	1.40	-	2004
	Conservation and management of pollinators for sustainable agriculture through an ecosystem approach	0.70	-	2004

Funding Source	Project Title	Amount (\$ million)		
		Grant	Loan	Date ^a
	Aromatic and Natural Dye Plants Program for Sustainable Livelihoods in South Asia	1.40	-	2006
Finland	Forest Resources Information System	1.80	-	1997
Germany	Biogas Program	3.10	-	1998
	Integrated Rural Development in Dhading District	0.30	-	1998
Germany	Rural Development through Self-help Promotion in Lamjung District	0.40	-	1998
	Regional Rural Development	9.00	-	2000
	Rural Finance Nepal	2.28	-	2005
India	Deep Tubewell Irrigation	1.50	-	2005
International Fund for Agricultural Development	Western Uplands Poverty Alleviation	-	19.90	2002
	Leasehold Forestry and Livestock Programme	-	10.49	2004
Japan	Kennedy Round 2 Grant Program	17.80	-	2000
	Agriculture Extension and Training Improvement	7.00	-	2004
	Improvement and Promotion of Tea Technology	10.00	-	2004
	Himalayan Tea Technology and Extension Program	0.33	-	2004
Kuwait Fund for Economic Development	Praganna Irrigation	-	1.55 (KWD million)	1999
Netherlands	Biogas Support Program (Phase 3)	5.80	-	1997
	Mechi Hills Development	3.00	-	1998
	Rural Enterprises Assistance Program	0.18	-	2005
OPEC Fund	Community Managed Irrigated Agriculture Sector	-	7.00	2007
Switzerland	Community Forestry	2.80	-	1997
	Sustainable Soil Management	1.20	-	1998
	Hill Maize Research	0.80	-	1999
	Rural Enterprises Assistance Program	0.18	-	2005
United Kingdom	Seed Sector Support	5.20	-	1997
	Livelihood Forestry	34.60	-	2001
	Support for Helvetas Program (Rural Development)	11.64	-	2001
	Agricultural Perspective Plan Support Program	13.00	-	2002
	Rural Community Infrastructure Works	7.63	-	2002
	Seeds and Livelihood Support Program	5.80	-	2005
United States	Forest and High-Value Agriculture Products	25.00	-	1997
	Forestry Sector Policy	0.20	-	1999
	Smallholder Irrigation Marketing Initiatives	4.00	-	2003
	Business Development Services for High-Value Crops	3.00	-	2003
	Policy Improvement for Agriculture Production, Trade, and Marketing	0.25	-	2003

Funding Source	Project Title	Amount (\$ million)		
		Grant	Loan	Date ^a
	Global Alliance for Tea and Coffee Production and Marketing	0.20	-	2004
World Bank	Agricultural Research and Extension	-	24.30	1997
	Nepal Irrigation Sector	-	79.80	1997
	Rural Infrastructure	-	5.00	1999
	Irrigation and Water Resources Management	50.00		2007
World Food Program	Rural Infrastructure Project		5.00	1999

^a Year approved and/or agreement signed.

^b Provided as advisory technical assistance.

^c Provided as project preparatory technical assistance (PPTA).

^d Cancelled.

^e PPTA.

^f This includes PPTA \$0.70 million.

Source: Ministry of Finance, Government of Nepal, and various development agencies.

REGIONAL TECHNICAL ASSISTANCE IN NEPAL: A CASE STUDY¹

1. Seven regional technical assistance (TA) projects provided support for research and technology development in Nepal from 2000 to 2007. Five international agricultural research centers (IARCs) of the Consultative Group of International Agricultural Research (CGIAR)—the International Maize and Wheat Improvement Center, International Plant Genetic Resources Institute, International Food Policy Research Institute, International Rice Research Institute, and International Water Management Institute—were the executing agencies. The Nepal Agricultural Research Council (NARC) was the national counterpart implementing most of these projects. The objectives were mainly to improve food security in the region, and contribute to increased agricultural productivity. The regional TA projects supported the development of technologies for raising the productivity of rice and wheat through (i) varietal enhancement and improved management practices, (ii) the development of effective water management institutions, (iii) conservation of native species, and (iv) socioeconomic and policy research. The technical assistance completion report of one of these regional TA projects has been completed, and it rated the project successful.

2. NARC considered the collaboration with IARCs to be valuable in several respects, including (i) access to research and technologies, including germplasm; (ii) support in the development of locally adaptable technologies; (iii) international exposure, training, and other capacity building for its staff, and (iv) networking opportunities and confidence-building among national scientists. In addition, regional TA projects constituted NARC's only link to the international scientific community in some areas. NARC's recent shift in research emphasis from its traditional focus on varietal trials toward research aiming to meet farmers' immediate problems and concerns (such as cost-efficient technologies, sustaining rice-wheat cropping systems, promoting water-saving, and other resource-conservation technologies) were attributed to the CGIAR centers' guidance and influence. One of the main concerns expressed by NARC staff was that regional TA is implemented with a number of different national agricultural research systems and that in such circumstances small countries like Nepal rarely receive adequate support, compared with larger countries that have greater scientific capacity.

3. The programs supported by regional TA projects are generally in line with national development priorities, such as the ninth (1997–2001) and tenth (2002–2007) five-year national development plans and with the priorities listed in NARC's Strategic Vision 2021.² Most of the research and technologies developed were assessed *relevant to highly relevant*. They were, in some cases, ready for immediate use. Regional TA projects also supported much-needed enhancement of the knowledge base of native products and practices. Further, regional TA projects generated information relevant for socioeconomic issues in research and technology development in general and in subsector-specific issues such as introduction of integrated water resources management. The Department of Irrigation has acknowledged that these outputs have been used in preparing two key documents: (i) Formulation of Water Resources Strategy 2002 and (ii) National Water Plan 2005. It was stressed that inadequate follow-up for scaling up through appropriate policy support and stronger linkages with extension were the main bottlenecks in terms of generating impact.

4. During the course of the evaluation, focus group discussions and key informant interviews were held with officials of the Ministry of Agriculture and Cooperatives, ADB staff (including the Nepal Resident Mission), NARC, and officials of the executing agencies of the investment, technical assistance, and grant projects. These did not reveal clear links

¹ ADB. 2008. *Special Evaluation Study Update on Policy Implementation and Impact of Agriculture and Natural Resources Research*. Manila. 19 December. Available: <http://www.adb.org/Documents/SES/REG/EVU-OTH-2008-40/EVU-OTH-2008-40.asp>

² Nepal Agricultural Research Council. 2002. *Vision 2021 – Agricultural Research for Sustainable Livelihood Improvement*, Kathmandu.

between ADB's country operations and the support provided through the regional TA modality. Regional TA projects were implemented directly from ADB headquarters, and the Nepal Resident Mission was not fully aware of the types of support provided through regional TA. This is disappointing in that several regional TA-generated project outputs have potential for immediate use, in most cases for improving production systems.

5. Some examples of regional TA project outputs that could have been better utilized include information generated and technologies developed for high-value crops such as mango and citrus.³ These crops are economically important, are grown widely in Nepal, and have the potential to improve the incomes of smallholder farm households. Developing and scaling up these technologies match the objectives of two of the ADB investment projects in operation while these regional TA projects were being implemented. Despite these congruent objectives, investment projects did not fully benefit from regional TA technologies.

6. Regional TA projects are processed directly between ADB headquarters and the IARCs. There is no formal institutional setup to link regional TA outputs with country operations. The regional TA modality of support to Nepal does not appear in ADB's country partnership strategies, nor does it appear in the country's budget for research and technology development. This is clearly a key finding, as it indicates wasted effort in a situation where better linkages could have created very important synergy.

³ ADB. 1999. *Technical Assistance for the Fourth Agriculture and Natural Resources Research at CGIAR Centers*. Manila (TA 5866-REG).

KEY ADB-SUPPORTED SECTOR POLICIES AND INSTITUTIONAL REFORMS

1. Over the evaluation period, the Asian Development Bank (ADB) helped the Government of Nepal (the Government) to formulate and reform several policies. Key policies formulated from 1997 to 2007¹ are shown in Table A7.1. ADB directly or indirectly supported the development of most of these policies and strategies. By helping the Government to formulate and implement these policies and institutional measures, ADB has succeeded in keeping key Nepalese policy makers and authorities updated on events outside of Nepal and cognizant of the strengths and weaknesses of ongoing policies and strategies and where they need to act and how. While this has sometimes involved ADB in controversy in Nepal, its importance should not be underestimated. Most of the policy makers interviewed by the team appreciate ADB's contribution to policy reforms.

Table A7.1: Key Policies Formulated with ADB Assistance, 1997–2007

Policy	Major Objectives
National Seed Policy, 2000	<p>Make systematically available the required amount of high-quality seeds of different crops.</p> <p>Encourage the export of seeds by producing seeds of good quality.</p> <p>Make the seed business effective, taking into account current international trade.</p> <p>Keep and protect the genetic characteristics of Nepalese specialty seeds and coordinate with other organizations to protect intellectual rights on them.</p>
National Tea Policy, 2000	<p>Enhance qualitative and quantitative tea production through the participation of the private sector in tea plantation.</p> <p>Contribute to poverty alleviation through the expansion of income generation and employment opportunities.</p> <p>Help environment conservation through the expansion of tea plantation.</p>
National Fertilizer Policy, 2002	<p>Reconfirming the government's firm adherence to liberalizing the fertilizer market, the policy has as specific objectives</p> <ul style="list-style-type: none"> (i) ensuring the provision of policy and infrastructure management conditions for enhancing fertilizer consumption and (ii) promoting integrated plant nutrient management for the efficient and balanced use of fertilizers.
National Coffee Policy, 2003	<p>Promote coffee exports and the substitution of imports.</p> <p>Contribute to poverty alleviation through the expansion of income generation and employment opportunities.</p> <p>Help environmental conservation through the expansion of coffee plantation.</p> <p>Make coffee enterprises sustainable and attractive.</p>
Irrigation Policy, 2003	<p>Provide year-round irrigation to suitable land through the effective use of existing water resources.</p> <p>Develop the institutional capability of water users for sustainably managing the existing system.</p> <p>Enhance the knowledge, skills, and institutional working capability of technical human resources, water users, and nongovernment associations and organizations relating to the development of irrigation.</p>

¹ This does not include the Agriculture Perspective Plan, as it was approved by the Government in 1995. Its implementation later coincided with the start of the Ninth Plan in 1997, following the formulation of Nepal Interim Agriculture Perspective Plan in October 1997.

Policy	Major Objectives
Local Infrastructure Development Policy, 2004	<p>Devolve infrastructure programs carried out locally by the line ministries to local bodies.</p> <p>Enhance the development of appropriate institutional structures and technical capacity for the development of local infrastructure.</p> <p>Adopt the concept, approaches, and practices of mobilizing local resources, means, and skills in the development of local infrastructure.</p> <p>Utilize available resources effectively by coordinating with the donors involved in the development of local infrastructure.</p>
National Agricultural Policy, 2004	<p>The objective is to contribute to food security and poverty alleviation by achieving high and sustainable economic growth through a commercial and competitive agricultural system. Specific purposes are to</p> <ul style="list-style-type: none"> (i) increase agricultural production and productivity; (ii) make agriculture competitive in regional and international markets through the development of bases for commercial and competitive agricultural; and (iii) conserve, promote, and use natural resources, the environment, and biodiversity sustainably.
Agriculture Business Promotion Policy, 2006	<p>Support market-oriented and competitive agricultural production.</p> <p>Contribute to internal marketing and export promotion through the development of agro-industries.</p> <p>Contribute to poverty alleviation through the commercialization of agriculture.</p>
Agro Bio-diversity Policy, 2007	<p>Strengthen food and nutrition security and develop agriculture appropriately through the conservation, maintenance, and sustainable use of agro-biodiversity.</p> <p>Protect and maintain farmers' rights to indigenous knowledge, skills, technologies, and practices.</p> <p>Manage opportunities from, and build an equitable distribution system for, the benefits of using agricultural genetic resources and materials.</p> <p>Help balance ecological promotion for long-term agro-biodiversity conservation.</p>
Dairy Development Policy, 2007	<p>Enhance dairy production and productivity in rural areas.</p> <p>Expand the transportation system for milk collection and milk-processing industries by making the production of milk and milk products competitive.</p> <p>Substitute for imports through the diversification of milk products according to the feasibility of internal markets.</p> <p>Enhance the availability of milk and milk products for the general public by improving their quality and regulation.</p>

Source: Independent Evaluation Department.

2. **Establishment of Institutions.** ADB has supported the development of many key institutions in the sector. The creation of new organizations was undertaken in parallel with the ADB-assisted Governance Reform Program, which promoted right-sizing in the government bureaucracy. Table A7.2 shows the institutions established in the sector with ADB assistance during the evaluation period.

Table A7.2: Institutions Established with ADB Assistance, 1997–2007

Institution	Year of Establishment	Program/Project Responsible for Establishment	Key Contribution to the Sector
DOLIDAR ^a	1998	TA 2556 ^b	Professional and focused technical services and backstopping to DDCs ^c for planning, implementing, and monitoring rural infrastructure including rural and agricultural roads to enhance farm-to-market linkages
RMDC ^d	1998	Rural Microfinance	Promoting a microfinance-friendly environment, providing wholesale credit to partner microfinance institutions (MFIs) at reasonable interest rates, spreading best practices between MFIs, working with the government to formulate appropriate microfinance policies and legislation. The recommended Financial Intermediary Act was amended to allow MFIs to accept savings from clients and renew their license every 3 years, rather than every year as required previously.
NARDF ^e	2001	Crop Diversification	Institutionalization of client-oriented research and the involvement of public, private, and nongovernment organizations in agricultural research and development through a competitive grant system
NSCL ^f	2002	Second Agricultural Program Loan	Expand the distribution of quality cereal seed in a reliable manner
CAA ^g	2007	Commercial Agriculture Development	Not yet visible, but expected to manage the Commercial Agriculture Fund and facilitate subproject linkages and the networking of agricultural stakeholders in the project area

ADB = Asian Development Bank.

^a The Department of Local Infrastructure and Agricultural Roads (DOLIDAR) was established by a decision of council of ministers on 24 August 1998.

^b ADB. 1996. *Technical Assistance to the Kingdom of Nepal for Institutional Strengthening for Rural Infrastructure Development*. Manila (TA 2556-NEP).

^c The district development council (DDC) is a local government body established in each of the 75 districts under the Local Self Governance Act 1999.

^d The Rural Microfinance Development Centre (RMDC) was established in 1998 at the initiative of ADB and Nepal Rastra Bank and became operational in 2000. Since then, it has provided wholesale funds and technical and financial assistance to microfinance institutions.

^e The National Agricultural Research and Development Fund (NARDF) was established by a decision of council of ministers on 10 December 2001 under section 3 of the Working Fund Act 1986.

^f National Seeds Company Ltd. (NSCL) was established in 1999, bifurcating the Agriculture Inputs Corporation to carry out business in the cereal crop seed sector, as there was almost no involvement of the private sector in the 1990s.

^g The Commercial Agriculture Alliance (CAA) is a nonprofit company registered with the Office of Company Registrar as per the Company Act of Nepal for managing the Commercial Agriculture Fund and facilitating subproject linkages and the networking of agricultural stakeholders in the Commercial Agriculture Development project area.

Source: Independent Evaluation Department.

MANAGEMENT RESPONSE TO THE SECTOR ASSISTANCE PROGRAM EVALUATION FOR THE AGRICULTURE AND NATURAL RESOURCES SECTOR IN NEPAL

On 7 July 2009, the Director General, Independent Evaluation Department, received the following response from the Managing Director General on behalf of Management:

I. General Comments

1. The Sector Assistance Program Evaluation (SAPE) is an important tool for assessing past performance in a sector, drawing lessons and making recommendations for future directions for operations in developing member countries. In this regard, we greatly appreciate IED's efforts in evaluating ADB's assistance to the agriculture and natural resources (ANR) sector in Nepal from 1997–2007, and acknowledge the in-depth consultations with key stakeholders, including the Government, private sector, civil society, other development partners in Nepal, and beneficiaries, and with ADB staff.

2. The SAPE recognizes the country context in which ADB sought to deliver the sector results. The evaluation period was marked by armed conflict throughout, and the SAPE acknowledges that any accomplishments or failures of both the wider economy and the sector need to be viewed in this context. Despite the difficult situation and the vagaries of weather on which Nepal's agriculture heavily depends, ADB's continued assistance to the sector as a major development partner significantly contributed to Nepal's achieving 3% annual growth over the evaluation period with direct impact on poverty reduction, as agriculture is the main source of livelihood for the majority of people in rural Nepal. We regard the SAPE's top-down (strategic and institutional) assessment of borderline "successful" as reflecting ADB's contributions to maintaining the sector performance and the resultant effect on the country's movement from a conflict situation to a peace process.

3. The SAPE also recognizes ADB's assistance to the sector and the contribution to long-lasting development results in productivity gains and poverty reduction by supporting projects for neglected regions and for poor and marginalized groups. It also highlights some inadequacies in project design and the need for designing simpler projects, noting some ANR projects' complex implementation modalities due to multiple components crossing subsector boundaries. The SAPE has also rightly pointed out the need for (i) strengthening project monitoring and supervision, which was constrained by insecurity and political disturbances during the period under study; (ii) deeper and meaningful engagement and consultations with key players; and (iii) regular monitoring of results, which was constrained by continued political instability and limited ANR staff capacity in recent years.

4. However, regarding the impact of policy reforms in the agriculture sector, the SAPE findings appear to include issues that cannot be addressed through sector projects. We agree that further support is needed to sustain policy reforms, particularly on the removal of price subsidies on inputs. Our analysis indicates that a more conducive environment for private sector trade in fertilizer is needed to overcome shortages and the related problems of spurious imports

across a porous border. The SAPE also suggests (para. 115) that broader issues related to regional and international trade, such as the fixed exchange rate between the Nepalese and Indian rupees, should be addressed. While there is a need to provide a more supportive policy environment for private sector trade and investment in the commercialization of agriculture, it is not possible through ANR projects to address issues such as exchange rates and fertilizer subsidies in a large neighboring country.

5. The bottom-up (project and subsector) assessment of "partly successful" is largely based on anticipated shortfalls in effectiveness in achieving objectives and efficiency in using resources to produce expected outputs, outcomes and impacts. The extended conflict, uncertain political situation and constrained monitoring and supervision have further weakened governance and the capacity of district-level implementing agencies, resulting in some delays in implementation and slow realization of results, despite the efforts of the Government, partner NGOs and private sector, and ADB. In our view, the rating has limitations because about half of the evaluated projects were at different stages of implementation, including one in its first year of implementation. Accordingly, the SAPE recognizes that this rating may change. The SAPE has assessed the sector outputs and outcomes as "likely sustainable" and with "substantial" impact of the sector assistance but on the low side, as the assistance focused on capacity building of stakeholders, promoted partnership mentality, and empowered women and excluded groups.

6. The SAPE has documented many important lessons learned during 10 years of ANR sector assistance in Nepal. The key ones are (i) the importance of strong focus on conflict, poverty reduction and gender equality in project design and implementation; (ii) the need for additional resources to improve monitoring and supervision and attain intended sector results; and (iii) the adoption of the most effective means of delivering assistance to local areas and beneficiaries in future project design. It has rightly suggested giving careful consideration to governance issues arising from poor accountability and transparency in general and the ANR sector operations in particular.

II. Comments on Specific Recommendations

7. **Recommendation 1. Reduce Subsector Spread of ADB Assistance to the Sector.** We agree. ADB's assistance to the ANR sector in Nepal has focused on four (out of eight) subsectors (see para. 54 of the SAPE). ADB's ANR assistance should continue to focus on selected subsectors that have performed well and can maximize development impacts. This is consistent with the thrust of ADB's Strategy 2020. Subsector selectivity will increase the potential impact of projects and total sector assistance. The selected subsectors should be strongly interlinked and mutually support each other's performance and collectively contribute to achieving the expected sector results. Given that ADB is a major development partner in Nepal's agriculture development, it can continue to play an important role in improving the performance of the ANR sector and achieving results by supporting selected and well-performing subsectors. To strengthen ANR performance, there is a need to improve the policy environment for greater participation of the private sector, where ADB's support can be important.

8. **Recommendation 2. Increase Investment in Rural Infrastructure.** We agree. Assistance in rural infrastructure development can play a key role in achieving ANR sector results. In particular, assistance in rural roads, irrigation and market infrastructure can significantly contribute to enhancing agriculture production and marketing through increased access to inputs and markets, and achieving overall commercialization of agriculture. The SAPE has correctly identified rural infrastructure for ADB's assistance based on lessons learned from its and other development partners' assistance programs. This approach is consistent with the Government's plan, ADB's Strategy 2020 and other development partners' strategies. ADB's assistance in capacity building of stakeholders and developing proper mechanisms for participatory operation and maintenance of infrastructure will be of critical importance to sustain benefits and attain expected ANR sector results.

DEVELOPMENT EFFECTIVENESS COMMITTEE (DEC)

Chair's Summary of the Committee Discussion on 15 July 2009

Sector Assistance Program Evaluation for the Agriculture and Natural Resources Sector in Nepal

Discussion Highlights

1. DEC highlighted the issues pertaining to legal empowerment of women and its connection with ADB's engagement in the sector and the risk of policy reversal, particularly fertilizer subsidy. One DEC member noted that though Strategy 2020 does not include agriculture as a priority area, the SAPE recommendation is important in emphasizing agriculture as an area where ADB can make a difference. Another DEC member suggested combining initiatives on agriculture and natural resources with tourism. One Board member emphasized that corruption issues in the sector should be addressed, and ADB should take stock of the lessons learned as highlighted in the SAPE.

2. On the issue of fertilizer subsidy, Management explained that currently, there is a subsidy-free environment, but should there be discussions of re-introducing subsidies either by interfering again in what is now a fairly efficient fertilizer market where private sector plays a prominent role, or by possibly reintroducing subsidies on fertilizer and shallow tube wells, ADB will be engaged in dialogue at a highest level.¹ To address the issue of local level corruption in agriculture and community-based rural development programs, greater community involvement in the project preparation process will be encouraged and steps will be taken to introduce community audits and transparent public display of project information, among other measures, as well as the strengthening of Nepal Resident Mission's capacity for project supervision.

Conclusions

3. DEC emphasized that with more than two-thirds of the population of Nepal being dependent on agriculture, and agriculture producing about a third of the GDP, it is important for ADB to help the agriculture sector in Nepal.

4. DEC agreed with the recommendation of the SAPE that what is critical is to choose the sub-sectoral focus or modalities of helping the agriculture and natural resources sector. In this context, DEC underscored the importance of rural infrastructure such as irrigation, rural roads and market infrastructure.

5. Good governance in general and prevention of corruption is very important for any developing country, and DEC suggested the ADB to pay particular attention to improving the efficiency of resource allocation and utilization in all countries including Nepal.

6. DEC also underscored the likely adverse consequences of policy reversals in agriculture sector in general, and fertilizer pricing in particular.

Ashok K. Lahiri
Chair, DEC

¹ The new subsidy was formally announced in the Government's annual budget on 13 July 2009, and a high-level expression of ADB's concern came during the meeting of Vice President, Operations 1 and the Vice Chairman of the Nepal Planning Commission on 4 August 2009.