## CONTENTS

### EXECUTIVE SUMMARY

vii - xiv

### CHAPTER 1

#### INTRODUCTION

1.1 Background 1
1.2 Objectives 2
1.3 Scope and Coverage 2
1.4 Approach and Methodology 3
1.5 Organization of the Report 4

### CHAPTER 2

#### CONCEPTUAL FRAMEWORK FOR THE ANALYSIS OF FOOD SECURITY AND POVERTY

2.1 Poverty: Concepts and Analysis 6
2.2 Food Security: Concepts and Analysis 10

### CHAPTER 3

#### ECONOMY, POVERTY AND FOOD SECURITY

3.1 Physiography and Administration 13
3.2 Growth record: Overall Economy and Components 13
3.3 The Poverty and Food Insecurity Situation and Underlying Causes 18
3.4 Food security 23
3.5 Forces Contributing to Poverty and Food Insecurity 29
3.6 Historical Roots of Institutional Dimensions of Poverty and Food Security 49

### CHAPTER 4

#### THE MACRO POLICY AND INSTITUTIONAL ENVIRONMENT

4.1 Development Strategy 54
4.2 Economy-wide Policy on Poverty Alleviation and Food Security 56
4.3 Sectoral Policies and Strategies for Poverty Alleviation and Food Security 58
4.4 Institutional Framework for Planning, Development and Policy Implementation 64
4.5 The NGO Sector 66
4.6 The Private Sector 69
4.7 Important Legal and Customary Institutions 69
4.8 Decentralization and Poverty Reduction 70
4.9 Institutional Adequacy and Gaps 72
CHAPTER 5

THE MESO SETTING: INTERMEDIATE PROCESSES AND LINKAGES

5.1 Effects and Impacts on Consumption, Savings and Investment 76
5.2 Effects and Impacts on Government Revenues and Expenditures 76
5.3 Effects and Impacts on the External Sector 77
5.4 Impact on Prices and Economic Incentives 78
5.5 Effects and Impacts on Social and Development Infrastructure 87
5.6 Effects of Recent APP Strategy on Agricultural Production and Productivity 98
5.7 Impact of the APP on Food Security 110
5.8 Impact on Poverty 120
5.9 Programme Management, Monitoring and Evaluation 122
5.10 Key Findings 123

CHAPTER 6

THE MICRO SETTING: HOUSEHOLD RESPONSES AND OUTCOMES

6.1 Major Characteristics of the Study Sites 130
6.2 Poverty, Food Security and Gender Issues 133
6.3 Development Opportunities and Interventions 136
6.4 Conclusion from the Village PRAs 137
6.5 Linking the Meso and Micro Levels 140
6.6 Micro Effects of Macro Policy 144

CHAPTER 7

A POLICY AND INVESTMENT FRAMEWORK FOR POVERTY ALLEVIATION AND FOOD SECURITY IN NEPAL

7.1 Background and Policy Contours 151
7.2 Strengthening Agricultural Sector Production Base 155
7.3 Strengthening Participatory Institutional Arrangements 160
7.4 Gender Sensitive Rural and Agricultural Development Strategies 163
7.5 Child Development, Education and School Feeding Programmes 164
7.6 Infrastructure Development and Employment Guarantee Schemes 166
7.7 Social Safety Nets and Welfare Supports 167
7.8 Investment Framework and Market-State Synergies 168

REFERENCES 171

APPENDIX TABLES A1-A20

ANNEXES
Annex 1: Addressing the Agricultural Concerns of Rural Poverty and Sustainable Household Food Security
Annex 2: Addressing the Institutional Concerns of Poverty and Food Security
Annex 3: Gender and Nutritional Concerns of Poverty Alleviation and Food Security in Nepal
Annex 4: Assessing the Poverty and Food Security Situations at the Micro-Level through Participatory Rural Appraisal
LIST OF TABLES

Table 1.1 Villages Selected for Field Study
Table 1.2 Participatory Rural Appraisal Tools Used in the Study
Table 3.1 Ecological Belts of Nepal
Table 3.2 Real GDP Growth
Table 3.3 Structure of Real Gross Domestic Product
Table 3.4 Growth in Real Per Capita GDP
Table 3.5 Structure and Growth of Consumption, Savings and Investment
Table 3.6 Structure and Growth of Government Revenue and Expenditure
Table 3.7 Growth in Foreign Aid in the 1990s
Table 3.8 Trends in Foreign Trade
Table 3.9 Households and Population below Poverty Line in 1977
Table 3.10 Households and Population with Expenditure and Income below Minimum Subsistence Levels in Regions of Nepal, 1977.
Table 3.11 Incidence of Poverty by Region 1984/85
Table 3.12 Incidence of Poverty in Percentage by Region under different Poverty Lines: 1989
Table 3.13 Poverty Incidence by Region: 1996
Table 3.14 Incidence of Poverty by Region
Table 3.15 Trends in the Incidence of Poverty
Table 3.16 Gender Specific Poverty Incidence
Table 3.17 Trade Balance of Food Grains (1993-1998)
Table 3.18 Food Production and Deficit Situation
Table 3.19 Comparison of Available and required Calorie from Cereals
Table 3.20 Nutritional Dimension of Food Security
Table 3.21 Adequacy of Food Consumption (1995/96)
Table 3.22 Health and Survival Indicators
Table 3.23 Infant Mortality: Rate of Progress
Table 3.24 Health Status and Utilization of Health Care
Table 3.25 Comparative Growth in Population and Economy
Table 3.26 Potential and Actual Labor Force and Participation Rate by Sex, 1971 - 1996
Table 3.27 Changes Labor Force Participation Rate by Ecological Belt (%) 
Table 3.28 Work Participation by Major Sectors
Table 3.29 Estimates of Unemployment Rate in Different Point in Time
Table 3.30 Changes in Underemployment
Table 3.31 Changes in Labor Productivity Over Time
Table 3.32 Levels and Trends of Real Wage (RW) by Sector
Table 3.33 Land Resources and Land Use Changes
Table 3.34 Changes in Land Use in Nepal between 1981/2 and 1991/2
Table 3.35 Ecological Distribution of Land Use, 1985
Table 3.37 Land Tenure Status in 1991
Table 3.38 Growth in Livestock Population and Productive Animals
Table 3.39 Ecological Distribution of Livestock Population and Livestock Feed Base
Table 3.40 Position of Agriculture in the Economy
Table 3.41 Growth and Variability of Agriculture Sector in the 1990s (1990-98)
Table 3.42 Per Hectare Yield and Growth Rates of Major Crops in Nepal and Other Asian Countries (1961-1999)
Table 3.43  Development of Irrigation Facilities, 1974/75-1999/00
Table 3.44  Access of Landholders to Irrigation
Table 3.45  Access to Irrigation by Size Class of Holding
Table 3.46  Consumption and Growth Rates in Fertilizer Consumption in Nepal
Table 3.47  Adoption of Fertilizers by Farmers
Table 3.48  Relative Access to Fertilizer Sale Outlets, 1995/96
Table 3.49  Consumption of Improved Seeds
Table 3.50  Adoption of Improved Seeds
Table 3.51  Average Time taken to reach the nearest Krishi Kendre by Level of Consumption
           Expenditure
Table 3.52  Proportion of Borrowers Reporting Borrowing from Institutional
           and Non-Institutional Sources: 1969/70-1991/92
Table 3.53  Sources of Credit by Consumption Group
Table 3.54  Time Taken to Reach Nearest Co-operative and Bank by Households Quintiles, 1996
Table 3.55  Time Taken to Reach Nearest Facilities, 1996
Table 3.56  Access to Health Services
Table 3.57  Access to Drinking Water and Sanitation, 1996
Table 3.58  Level and Sources of Household Income
Table 3.59  Income Distribution
Table 4.1   Growth of NGOs by Type 1992-97
Table 5.1   Changes in Consumption, Savings and Investment (1990-98)
Table 5.2   Structure and Growth of Government Revenue and Expenditure
           (1984/85 prices)
Table 5.3   Trends in the Foreign Trade Situation
Table 5.4   Trends in the Balance of Payment Situation
Table 5.5   Changes in the Prices of Cereals and Fertilizers
Table 5.6   Movement in National Retail Prices of Pulses
Table 5.7   Changes in the Prices of Fruits
Table 5.8   Changes in the Prices of Vegetables
Table 5.9   Changes in the Prices of Livestock Products
Table 5.10  Results of Regression Analysis (1985-1998)
Table 5.11  Government Development Expenditure on Social Sector (Rs million)
Table 5.12  Incremental Number of Schools in 1997/98
Table 5.13  Number of Health Institutions
Table 5.14  Government Development Expenditure on Economic Sectors
           (Rs million)
Table 5.15  Distribution of Development Expenditure on Others Economic Sectors
Table 5.16  Changes in the Number of New Projects and Allocated Budget in the Irrigation Sector in
           Pre and Post APP Period
Table 5.17  Price Subsidy, Subsidy Amount Allocated and Fertilizer Imports
Table 5.18  Performance of Credit Disbursement by ADB/N
Table 5.19  Research Projects Budgets in 1997 and 1998
Table 5.20  Financial Target of Agricultural Roads during the Ninth Plan
Table 5.21  Development Expenditure in Livestock Sector
Table 5.22  Investments in High Value Crops
Table 5.23  Development Expenditure in Forestry
Table 5.24  Development Budget before and after APP Implementation
Table 5.25  Change in Area, Production and Yields of APP Crops
Table 5.26  Change in Area, Production and Yields of Major Non-APP Crops
Table 5.27  Changes in Area, Production and Yield of Paddy by Development Regions and Ecological
           Belt
Table 5.28  Changes in Area, Production and Yield of Maize  
Table 5.29  Changes in Area, Production and Yield of Wheat 
Table 5.30  Changes in Area, Production and Yield of Potato  
Table 5.31  Achievements in Area Expansion of High Value Crops 
Table 5.32  Production Achievements of High Value Crops 
Table 5.33  Production Achievements of other Horticulture Crops  
Table 5.34  Changes in Productive Area, Production and Yield of Citrus 
Table 5.35  Changes in Productive Area, Production and Yield of Apple 
Table 5.36  Changes in Productive Area, Production and Yield of Vegetables 
Table 5.37  Changes in Milk, Meat and Egg Production Status in Post-APP Period 
Table 5.38. Changes in Production of Milk 
Table 5.39. Changes in Production of Meat 
Table 5.40. Changes in Production of Eggs 
Table 5.41  Growth in Wool and Fish Production 
Table 5.42  Growth in Agriculture and Forestry Based Industries 
Table 5.43  Growth in Agro-Industry by Sectors 
Table 5.44  Growth in Agro-Industry 
Table 5.45  Per Capita Annual Food Production 
Table 5.46  Per Capita Annual Food Production by Regions 
Table 5.47  Per Capita Annual Horticultural Products by Regions 
Table 5.48  Per Capita Annual Production of Livestock Products 
Table 5.49  Level of Food Self-sufficient in Study Villages 
Table 5.50  Proportion of Households Reporting as not Producing Sufficient Food 
Table 5.51  Trends in Food Deficit Situation ('000 Mt) 
Table 5.52  Geographical Dimensions of the Food Deficit Situation 
Table 5.53  Summary of NFC Operations 
Table 5.54  Level and Sources of Household Income 
Table 5.55  Changes in Income Distribution 1977-96 
Table 5.56  Situation of Dietary Energy Availability and Requirements 
Table 5.57  Families affected by Different Natural Calamities/Disasters 
Table 5.58  Situation of Dietary Energy Availability and Requirements (1986-1997) 
Table 5.59  Distribution Food Deficit Districts Based on Deficit Levels 
Table 5.60  Trends in the Incidence of Poverty 
Table 5.61  Poverty among Development Regions and Ecological Belts 
Table 5.62  Poverty among Caste/Ethnic Groups 
Table 5.63  Impact of Policy on Poverty and Food Security: A Summary of Key Findings 
Table 6.1  Major characteristics of the study sites 
Table 6.2  Economic stratification of people in the study villages by ethnicity (%) 
Table 6.3  State of food sufficiency by ethnicity in the four study villages (%) 
Table 6.4  Daily workload of women and men by study villages (hours) 
Table 6.5  Farmers’ problems, their causes and livelihood responses 
Table 6.6  Participants at the district workshop by district 
Table 6.7  Effect of fertilizer trade liberalization at the village level 
Table 6.8  Extent of APP implementation in study villages
LIST OF FIGURES

Figure 2.1: Conceptual Framework for Food Security Analysis
Figure 3.1: Land Distribution in 1981 and 1991
Figure 5.1: Movement of General Price Index
Figure 5.2: Movement of Terms of Trade in Agriculture
Figure 5.3: Movement of National Retail Price of Cereals
Figure 5.4: Seasonal Variation in Cereal Prices
Figure 5.5: Average Annual Retail Price of Fruits in Kathmandu
Figure 5.6: Average Annual Retail Price of Vegetables in Kathmandu
Figure 5.7: National Retail Price of Livestock Products
Figure 5.8: Relation of Subsidy Allocated and Fertilizer Imports

BOXES

Box 2.1: Development of the Concept of Poverty