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Ethiopia: Building on Progress
**A Plan for Accelerated and Sustained
Development to End Poverty (PASDEP)**

(2005/06-2009/10)

Volume I: Main Text

Ministry of Finance and Economic Development (MoFED)

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List of Acronyms

ABE	Alternative Basic Education
ADB	African Development Bank
ADLI	Agricultural Development Led Industrialization
AGOA	African Growth and Opportunity Act
APR	Annual Progress Reports
ANC	Antenatal Care
ART	Anti-Retroviral Treatment
BADEA	Arab Bank for Economic Development Africa
BCG	Bacelle Calmette Guerin
BPR	Business Process Reengineering
CAPI	Computer Aided Personal Interview
CBDS	Capacity Building for Decentralized Service Delivery
CBOs	Community Based Organizations
CCBP	Contagious Caprine Bovine Pnewonia
CCPP	Contagious Caprine Plyvero Pnewonia
CDE	Ethio-Djibouti Railway
CDMA	Code Division Multiple Access
CEM	Country Economic Memorandum
CHA	Community Health Agents
CMP	Current Market Price
CPR	Contraceptive Prevalence Rate
CRC	Citizen's Report Card
CRDA	Christian Relief and Development Association
CSA	Central Statistical Authority
CSOs	Civil Society Organizations
CTIT	College of Telecommunication and Information Technology
CTTI	Catering and Tourism Training Institute
DA	Development Agents
DAG	Development Assistance Group
DBE	Development Bank of Ethiopia
DCI	Domestic Construction Industries
DFID	Department for International Development
DHS	Demographic Health Survey
DMOs	District Maintenance Organizations
DPT	Dephteria Pertusis and Tetanus
DOTS	Daily Observed Therapy Short Course
DTIS	Diagnostic Trade Integration Study
EASE	Ethiopian Agricultural Sample Enumeration
EBA	Everything But Arms
ECB	Engineering Capacity Building
ECBP	Engineering Capacity Building Program
ECEC	Ethiopian Commodity Exchange Center
EEPCo	Ethiopian Electric Power Corporation
EICTDA	Ethiopian ICT Development Authority
EMC	Expenditure Management Control
EMS	Environmental Management System
EPI	Extended Program of Immunization
ERA	Ethiopian Road Authority

ERTTP	Ethiopian Rural Travel and Transport Program
ESDP	Education Sector Development Program
ETC	Ethiopian Telecommunication Corporation
EU	European Union
FAs	Farmers' Associations
FDI	Foreign Direct Investment
FDRE	Federal Democratic Republic of Ethiopia
FMD	Foot and Mouth Disease
FeMSEDA	Federal Micro and Small Enterprise Development Agency
FSP	Food Security Program
FTCs	Farmers' Training Centers
GBA	Gender Budget Analysis
GDCF	Gross Domestic Capital Formation
GDP	Gross Domestic Product
GER	Gross Enrolment Ratio
GIS	Geographic Information Systems
GTZ	German Technical Cooperation
HAPCO	HIV/AIDS Prevention and Control Office
HEWs	Health Extension Workers
HEWP	Health Extension Worker Program
HICES	Household Income Consumption Expenditure Survey
HIPC	Highly Indebted Poor Countries
HIV/AIDS	Human Immune Virus/Acquired Immune Deficiency Syndrome
HPAI	Highly Pathogenic Avian Influenza
HRM	Human Resource Management
HRMIS	Human Resource Management Information Systems
HSDP	Health Sector Development Program
HSEP	Health Service Extension Program
HTPs	Harmful Traditional Practices
ICS	Inter Connected System
ICT	Information Communication Technology
IDA	International Development Assistance
IEC	Information Education Communication
IFPRI	International Food Policy Research Institute
IOB	Institute of Biodiversity
IP/MPLS	Internet Protocol/Multi Protocol Label Switching
KG	Kilo Gram
KV	Kilo Volt
LAN	Local Area Network
MDGs	Millennium Development Goals
MEFF	Macro Economic Fiscal Framework
MFI	Micro Finance Institutions
MoE	Ministry of Education
M&E	Monitoring and Evaluation
MoFED	Ministry of Finance and Economic Development
MoH	Ministry of Health
MoARD	Ministry of Agriculture and Rural Development
MSE	Micro and Small Enterprise
MWUD	Ministry of Works and Urban Development
MoU	Memorandum of Understanding

MT	Metric Ton
MW	Mega Watt
NAC	National AIDS Council
NAP	National Action Plan
NBE	National Bank of Ethiopia
NCSS	National Child Survival Strategy
NDF	Nordic Development Fund
NEBE	National Elections Board of Ethiopia
NGOs	Non-Governmental Organizations
NFE	Non-Formal Education
NIHSP	National Integrated Household Survey Program
NPAEC	National Plan of Action for Ethiopian Children
NPFRD	National Policy Framework for Regional Development
NPLs	Non-Performing Loans
NSDS	National Strategy for the Development of Statistics
ODA	Official Development Assistance
OPEC	Oil Producing Exporting Countries
OVC	Orphans and Vulnerable Children
PADD	Pastoralist Area Development Department
PANE	Poverty Action Network of Ethiopia
PASDEP	A Plan for Accelerated and Sustained Development to End Poverty
PBX	Public Branch Exchange
PDS	Population Development Strategy
PFCE	Private Final Consumption Expenditure
PHC	Primary Health Care
PLWHA	People Living With HIV/AIDS
PMTCT	Prevention of Mother-to-Child Transmission
PPA	Participatory Poverty Assessment
PPESA	Public Enterprise Supervising Authority
PRSP	Poverty Reduction Strategy Program
PRTSR	Poverty Reduction/Transport Strategy Review
PSCAP	Public Sector Capacity Building Program
PSD	Private Sector Development
PSD-CB	Private Sector Development-Capacity Building
PSDP	Power Sector Development Program
PSIP	Public Service Delivery Improvement Policy
PSN	Productive Safety Net
PPP	Point-to-Point Protocol
Qt.	Quintals
RFA	Road Fund Administration
RRAs	Rural Road Authorities
RSDP	Road Sector Development Program
SCS	Self-Contained System
SD	Service Delivery
SDPRP	Sustainable Development and Poverty Reduction Program
SIM	Subscriber Identity Module
SNNPR	Southern Nations Nationalities and People's Region
SNV	Netherlands Development Organization
SSA	Sub-Saharan Africa
ST-EP	Sustainable Tourism-Eliminating Poverty

STI	Sexually Transmitted Infections
TB	Tuberculosis
TBA	Traditional Birth Attendant
TIN	Tax Identification Number
TMS	Top Management System
ToR	Terms of Reference
TVET	Technical Vocational Education and Training
TTBA	Trained Traditional Birth Attendant
TTCs	Teachers' Training Centers
TTP	Trade Practice Proclamation
UEAP	Universal Electrification Access Program
U.K	United Kingdom
UNDP	United Nations Development Program
US\$	United States Dollar
VAT	Value Added Tax
VCT	Voluntary Counseling and Testing
VSAT	Very Small Aperture Terminal
WB	World Bank
WAN	Wide Area Network
WHO	World Health Organization
WMS	Welfare Monitoring Survey
WMSP	Welfare Monitoring System Program
WMSC	Welfare Monitoring Steering Committee
WMTC	Welfare Monitoring Technical Committee
WMU	Welfare Monitoring Unit
WMUD	Ministry of Works and Urban Development
WSDP	Water Sector Development Program
WTO	World Trade Organization
YSDP	Youth Sector Development Programs

Introduction

The main development objective of the Ethiopian Government is poverty eradication. Hence, the country's development policies and strategies are geared towards this end. This document describes the Plan for Accelerated and Sustained Development to End Poverty (PASDEP), Ethiopia's guiding strategic framework for the five-year period 2005/06-2009/10. The PASDEP represents the second phase of the Poverty Reduction Strategy Program (PRSP) process, which has begun under the Sustainable Development and Poverty Reduction Program (SDPRP), which covered the past three years, 2002/03-2004/05.

The PASDEP carries forward important strategic directions pursued under the Sustainable Development and Poverty Reduction Program (SDPRP) -related to infrastructure human development, rural development, food security, and capacity-building- but also embodies some bold new directions. Foremost among them is a major focus on growth in the coming five-year period with a particular emphasis on greater commercialization of agriculture and enhancing private sector development, industry, urban development and a scaling-up of efforts to achieve the Millennium Development Goals (MDGs). These directions and their components are described in Chapter I.

The objective of the PASDEP is to define the nation's overall strategy for development for the coming five years; to lay out the directions Ethiopia wants to take, with the ultimate objective of eradicating poverty; and to outline the major programs and policies in each of the major sectors. Although the PRSP process started in 2000 as a process largely between Government and donors, in Ethiopia, it has now evolved beyond that, and the PASDEP is now considered a national plan for guiding all development activities during the coming five years. Equally importantly, it is a nationally agreed development plan belonging to all Ethiopians, developed through a process of consultation among all elements of society.

At the time the first SDPRP was issued in 2002, the Government already had in place a broad strategy, and the SDPRP largely reflected on-going commitments. The PASDEP represents an evolution towards new policy directions, and is increasingly the over-arching framework for programming and policies. It is important to recognize from the outset that this is a document signaling broad directions. The details of individual sectoral policies and annual programs are still, quite rightly, developed mostly in the context of individual sector planning exercises, and reflected here. Also, since the PASDEP strategy now covers a five-year period, inevitably there is more specificity for the first two years of the program, and directions for the later years are only signaled in broad terms.

The PASDEP process benefited from two rounds of consultations with civil society, non-government actors, and partners. An initial round prior to drafting of the document sought views on priorities prior to drafting of the document, and a second round in December 2005-January 2006 sought feedback on the initial draft. The main results of these consultations are reflected in Chapter I. The final version of the document was then revised to take account of many of the suggestions made during consultation with stakeholders.

The Plan has passed through an extensive process of debate and review within Government. After the initial drafting, it was reviewed again by all federal government ministries. This was followed by review of the whole Cabinet, then discussed in a two-day session with political leaders and officials of the regional states to ensure agreement and ownership of the strategies and targets. The PASDEP has been adopted by the Council of Ministers, and

finally, the Amharic version was debated extensively by Parliament over a period of two full weeks, and was finally adopted as a legal document, defining the national development plan for the 5-year period, 2005/06-2009/10.

The PASDEP benefited from a recent Household Income, Consumption, Expenditure Survey (HICES), and from the data generated by an excellent series of Welfare Monitoring Surveys (WMSs), that help describe the current situation of Ethiopian households, and how they have evolved over the past 10 years. The outcomes of the 2004/05 Participatory Poverty Assessment (PPA) study also complemented the findings from the HICES and WMS. The Plan was also informed by a number of background papers and studies prepared by government ministries and independent Ethiopian experts, as well as drawing on several major recent studies, including the Millennium Development Goals Needs Assessment Study for Ethiopia.

To keep the document to a manageable length, the program initiatives have been described in summary form in this main volume, and additional detail is referred to in a series of more detailed background documents that are separately documented by the various federal executive bodies.

The PASDEP is structured as follows:

- Chapter I presents progress and achievements under the SDPRP;
- Chapter II very briefly outlines growth and poverty reduction trends and prospects based on the 2004/05 HICES and WMS;
- Chapter III provides an overview of SDPRP implementation challenges and the way forward;
- Chapter IV presents the objectives of the five-year development plan;
- Chapter V describes the broad pillar strategic direction the Government is adopting;
- Chapters VI describes the macroeconomic framework and alternative growth scenarios for the PASDEP period;
- Chapters VII describes the main sectoral policies, strategies, and programs; and those related to cross cutting issues (such as population, gender, the environment, governance and capacity-building);
- Chapter VIII discusses the costs and financing of the PASDEP;
- Chapter IX lays out the challenges, opportunities and risks associated with the PASDEP; and,
- Chapter X covers monitoring and evaluation (M&E) of the PASDEP.

And finally the PASDEP policy matrix (Volume II) summarizes the targets set under the Plan, as well as the main policy steps during the period of the PASDEP.

CHAPTER I

Progresses and Achievements Under the Sustainable Development and Poverty Reduction Program (SDPRP)

The Government prior to implementing the SDPRP, it has put in place implementation as well as monitoring and evaluation strategies along with the design of the Program. Hence, the results of the past three years are the outcomes of the adopted monitoring and evaluation framework. This chapter briefly summarizes the performance and notable achievements under SDPRP.

1.1 Macroeconomic Performance

As indicated by the successive Annual Progress Reports (APRs) in the past three years, the Ethiopian economy had registered encouraging but mixed results, with negative real Gross Domestic Product (GDP) growth rate of 3.3% in 2002/03 as a result of drought, followed by strong positive performance of 11.9% and 10.6% during the subsequent two years, 2003/04 and 2004/05 respectively. Consequently, during 2002/03-2004/05, annual real GDP growth averaged 6.4%. All economic and social sectors have contributed to the growth achieved in overall GDP. The registered GDP growth rate, in comparison with the population growth rate of an average of 2.75%, implies that the average annual per capita income growth rate was 3.65%.

Although the growth of agriculture value added declined by 11.4% following the drought in 2002/03, due to the prevalence of favorable conditions including adequate rain and provision of adequate supply of agricultural inputs, agricultural production increased by 17.3% and 13.4% in the following years (2003/04 and 2004/05), respectively. During the same period, the industrial sector has also registered 10.0% and 8.1% growth rate, and distribution and service sectors registered 7.3 % and 8.4%, respectively. Inflation, which stood at 15.1 in 2002/03, declined to 6.8% by the end of 2004/05. Indicators of macroeconomic performance for the SDPRP period are provided in the Table 1.1 below.

**Table 1.1: Trends in Macroeconomic Performance
Growth Rates (%)**

S.N	Description	2001/02	2002/03	2003/04	2004/05
1	GDP in 1999/00 prices	1.0	-3.3	11.9	10.6
1.1	Agriculture	-2.1	-11.4	17.3	13.4
1.2	Industry	8.3	3.0	10.0	8.1
1.3	Distributive services	3.3	2.9	8.2	7.6
1.4	Other services	0.3	6.1	6.4	9.1
2	Private consumption expenditure	-0.2	8.6	12.5	23.1
3	Gross domestic investment	10.9	4.5	17.3	15.5
4	Food production (1994/95 = 100)	33	35	39	67
5	Inflation	-8.5	15.1	8.6	6.8
6	Domestic revenue	1.2	6.4	24.8	12.0
7	Tax revenue	14.8	4.0	32.3	13.7
8	Total government expenditure	-1.4	24.1	0.0	20.9
9	Recurrent expenditure	-4.1	28.3	-11.6	10.5
10	Capital expenditure	6.4	3.0	31.0	37.1
11	Pro-poor sectors expenditure	37.1	13.8	18.4	37.6
12	Export (goods and services)	0.6	21.8	18.8	34.2
13	Import (goods and services)	9.4	13.7	25.7	33.3

Fiscal development in the past three years supported the overall macroeconomic stability. Appropriate policy measures were introduced to encourage taxpayers through facilitating the tax collection system and its revenue generation. Measures taken include: income tax streamlining and closing of loopholes, improving the incentive system, strengthening tax administration, overhauling the income tax law and regulations, introducing a broad-based Value Added Tax (VAT) and tax identification numbers, and rationalizing tariff rates. As a result, tax revenue is estimated to have increased to 13.7% of GDP in 2004/05 from nearly 12% of GDP in fiscal year 2002/03. Following from the registered trend, in subsequent years, revenue from income taxes is expected to increase.

Domestic revenue mobilization efforts have been supplemented by increased external resource flows, which has increased from US\$693.6 million in 2002/03 to US\$937.5 million and US\$1055.9 million in the fiscal years 2003/04 and 2004/05, respectively. The Government has signed project program agreements worth US\$841.5 million in 2002/03 with development partners and US\$826.7 million was allocated for new development projects during fiscal year 2003/04. Out of the total flow of external resources, direct budget support in the past three years had shown a significant increase from 309 million Birr in 2002/03 to 2.9 billion Birr in 2004/05. Viewed against the reform undertaken by the Government, external loans and grants were more focused to direct budget support instead of program and project support. The utilization of resources mainly on infrastructure and human resource development has greatly contributed to the achievement of growth and macroeconomic stability.

Government expenditure, during the last three years, has also registered substantial increase. The main reason being the increased expenditure allocated for most development as well as pro-poor sectors, especially on capital expenditure. Defense budget has been maintained constant not to exceed 3 billion Birr per year. For example in the fiscal year 2004/05, actual defense expenditure was reported to be 2.4 billion Birr, 6% less than the figure in 2001/02. Total government recurrent expenditure declined from 19.7% GDP in 2002/03 to 13.5% of GDP in 2004/05 while capital expenditure increased from 9.2% of GDP to 11.5% of GDP in the same period.

In general, encouraging achievements were registered during the last three years with regard to fiscal management. The share of fiscal deficit amounted to 5% of GDP on average including grants. Out of the total deficit, 2.6% on average was covered through domestic borrowing.

During the SDPRP period, government resource allocation and implementation was geared towards investments on development and pro-poor sectors (agriculture and food security, education, health, Human Immune Virus/Acquired Immune Deficiency Syndrome (HIV/AIDS) and provision of clean water supply) as well as on infrastructure development, particularly in road construction. In general, from the total government expenditure, spending on poverty-oriented sectors has increased to 56.5% in 2004/05 from 43% in 2001/02. (Table 1.2)

Table 1.2: Trends in Pro-Poor Sectors Allocated Budget out of Total Government Expenditure (%)

Sector	2001/02	2002/03	2003/04	2004/05
Education	14.2	16.1	20.4	19.7
Health	5.9	4.9	4.3	4.8
Agriculture and food security	9.2	8.1	13.4	16.3
Road	10.7	9.9	9.6	11.2
Water and sanitation	2.8	2.9	2.0	4.5
Total	43	42	50	57

With regard to the external sector, exports registered substantial growth in recent years, owing to both increase in volume and revival in the prices of major exports in the international market. In 2003/04 and 2004/05, the total value of exports grew by 25% and 41.6%, respectively. Imports also surged in 2004/05, reflecting a general rise in private sector investment and consumption demand, and government spending on capacity building and poverty-reduction projects, in addition to escalating prices of basic imports such as fuel and construction materials. The unparalleled increase in imports of goods was reflected in a widening trade and current account deficit of the balance of payments. The external current account deficit (excluding official transfers) widened to 15.3% of GDP in 2004/05 from 11.3% of GDP in 2003/04. However, the increase in inflows of long-term official loans served as a cushion, protecting the country's reserves from declining. At the end of 2004/05, foreign exchange reserves stood at 4.5 months of import coverage.

With regard to the financial sector, there have been encouraging achievements during the last three years particularly with the deepening of financial sector reform. The market share of private banks has been steadily increasing in terms of all banking operations. For example, by the end of 2004/05, their share in total banking system deposits had reached 25.3%, and they accounted for 49% of new loan disbursements. Domestic credit increased by 31.5% by the end of 2004/05 as claims on the non-government sector increased by 58.5%. The latter was largely attributable to the increase in claims of commercial banks on public and private enterprises. As a result, the 19.6% growth in broad money supply is solely attributed to substantial growth in domestic credit, as NFA are estimated to have decreased by 0.7% in 2004/05. The growth in domestic liquidity was 10.9 by the close of 2003/04.

All banks including the Development Bank of Ethiopia (DBE) disbursed 52% more fresh loans reaching 9.4 billion Birr in 2004/05 compared to 6.2 billion Birr a year earlier - reflecting the continued strong economic growth. Nearly 86% of the fresh loans went to the private sector. Despite these developments, however, commercial banks have been still faced with excess liquidity.

Commendable progress has also been made in the restructuring of the Commercial Bank of Ethiopia, improving its service delivery and further reducing its non-performing loans (NPLs), which had declined from about 37.7 % in June 2004 to 27.2% by the end of June 2005.

1.2 Performance of Economic and Social Sectors

During SDPRP, implementation of programs under the major economic and social sectors was encouraging. During the SDPRP period, increased efforts have been made to provide the public with improved services in poverty-oriented sectors (education, health, provision of clean water supply, and HIV/AIDS), infrastructure (roads, telecommunication, and power), and in agricultural development and food security. The most notable successes during this period in the implementation of economic and social sector programs and strategies are outlined below:

1.2.1 Agriculture and Rural Development

The Agricultural Development Led Industrialization (ADLI) Strategy is among the pillars of SDPRP. In order to accelerate and expand industrial development and increase overall economic growth, it is essential to develop the agricultural sector which is crucial to ensure the provision of inputs for industries as well as to fulfill food requirements. Furthermore, the sector is the subdivision of the economy where the major human power required for development is engaged in addition to being the foundation for major growth in value added registered/achieved in the last three years and the source of foreign exchange earned during this period. Moreover, program achievements under SDPRP include:

- At the end of 2004/05, a total of 23,378 Development Agents (DAs) were trained through the agricultural Technical Vocational Education and Training (TVET) initiative which is designed to train DAs and farmers in leadership skills. 5,493 Farmers Training Centers (FTCs) have been completed and are ready to begin service as well. Assisted by DAs, several farmers were trained and encouraged to shift to small-scale modern farming practices;
- Improved extension package services were implemented in accordance with the existing environmental and market conditions and were geared towards addressing problems of production and productivity as well as to respond better to farmers' needs;
- The launch of the National Food Security Program that seeks to attain food security for five million chronically food insecure people; and another 10 million who are badly affected by food shortages in drought years. This is referred to as Productive Safety Net (PSN). The major components involve:

(a) Grants to the regions to be used for:

- ✓ Enhanced agricultural production packages (seeds and extension) in food insecure areas,
- ✓ Small-scale irrigation and water harvesting; and,
- ✓ Voluntary resettlement out of food insecure areas.

(b) A productive safety net program that includes:

- ✓ A public works program to employ the poor in building roads and other infrastructure during difficult times; and,
- ✓ Free distributions to orphans, the elderly, the disabled, and others who cannot work.

- The size of irrigated land and the number of farmers using irrigation have increased significantly. In this regard, currently over 200,000 farmers practice water harvesting;
- A new land proclamation system and program of issuing over 4 million certificates in the four regions (Amhara, Oromia, Southern Nations Nationalities and People's Region (SNNPR), and Tigray) of the country put in place to increase security of tenure among farmers;
- Special programs designed to support the pastoral areas in Afar, Somali, Oromia and SNNPR. The program include provision of clean water supply, livestock development, and provision of marketing through improvements in infrastructure and social services;
- Improving grain marketing and introducing the warehouse receipt and inventory control system to address problems of high seasonal price variability, poor storage and infrastructure. This is believed to contribute to stabilization of current grain prices fluctuation;
- Restructuring and strengthening cooperatives in urban and rural areas. In this regard, it is planned to increase the beneficiaries from such services from 30% in 2004/05 to 70% by the end of the PASDEP period;
- Support to Micro Finance Institutions (MFIs) as well as to intensify and improve financial services in rural areas;
- Development of livestock through improved breeds, forage development, and veterinary service;
- Facilitating in terms of producing export-oriented agricultural products that takes into consideration improved quality and recent market information; and,
- Implementation of the national environmental program that initiated the establishment of regional environmental agencies and institutions by developing the necessary guidelines and laws that promote proper land use and soil conservation, water resource management, forest resource management as well as wild life and biodiversity utilization and conservation.

1.2.2 Education

With regard to education, during SDPRP, efforts were made to increase primary school coverage in line with the Second Education Sector Development Program (ESDP II). During this period, the number of children in primary school increased from 8.1 million in 2001/02 to 11.4 million in 2004/05 taking the gross enrolment ratio (GER) from 61.6% to 79.8% (70.9 female and 87.3 male). GER for females has increased from 52.2 % to 71.4 %. As for primary school GER for those children aged 7-14, the rate has increased from 51.2% to 67.8% (female 62.9% and male 72.5%). Both the gross and the age based enrolment ratios do not include those attending informal education.

Among the factors that contributed to the accelerated progress achieved in this period is the significant increase in the number of primary schools from 11,780 in 2000/01 to 16,513 in 2004/05. The progress is supplemented by the fact that 80% of the constructed schools are located in rural areas and by the increased awareness of the community towards girls' education. Whereas enrollment ratios show overall increasing trend, it is necessary to note that there is disparity among regions. In particular, the enrolment ratio of Afar and Somalia regions are found to be low. Hence, special programs were initiated to respond to the needs of rural and pastoral areas where it is more difficult for children to go to school in the above-mentioned regions and in South-Omo, Oromia and Benshnguil-Gumuz regional states. For

example, the Government has started the implementation of mobile education system in line with the formal one in Afar region.

Secondary School Education

Significant progress has also been achieved in secondary school education (9–10). Accordingly, the number of students in secondary school increased from 512,327 in 2001/02 to 860,645 in 2004/05, the GER in 2004/05 being 29.2 (female 21.6 and male 36.6). The number of secondary schools has increased from 455 to 707 as well.

With these successes have come challenges in both primary and secondary education, most notably overcrowding of classrooms and rising student-teacher ratios, with consequent strains on the quality of education. The focus in the coming period will be on consolidating these gains, making adjustments to improve quality, and continuing expansion to capture those who are still outside of the system, and reduce dropout rates.

Preparatory Secondary School Education (11 – 12)

This education level is for students who have completed grade 10 and passed the National School Leaving Examination to attend the preparatory education to join higher education institutions. Since the beginning of this program in 2001/02, the number of students has increased from 79,155 to 94,660, and the number of preparatory secondary schools to 371.

Technical Vocational Education and Training (TVET)

This program was initiated in 2000/01 to cater for those students who have completed grade 10 education but did not score the required grades to attend preparatory secondary education but have the necessary aptitude for TVET in various fields. The TVET initiative structured as 10+1, 10+2 and 10+3 levels offers trainings in 25 fields in government run institutions and in 16 fields in private institutions.

It is believed that this line of education will fulfil the country's requirement for mid-level trained human resources. The number of training institutions has increased from 141 in 2001/02 to 200 in 2004/05, while the number of trainees has increased from 38,176 to 105,850 during the same period. Out of the total figure, 51% of the trainees were women.

Challenges in the next phase include ensuring the supply of teachers and reducing turnover, finding ways of reducing the unit cost, and ensuring the relevance and effectiveness of TVET courses. The TVET expansion is complemented by, and forms part of, the Engineering Capacity-Building Program, which integrates training, demand, and employment concerns in an outcome-based and demand-driven system with strong stakeholder participation. The private sector has shown substantial interest, with an estimated 250 local and foreign investors now involved in TVET programs. In addition, a National TVET Council has been established to ensure participation of private sector, Non Governmental Organizations (NGOs), and other relevant stakeholders in advising the Government on TVET strategy.

Higher Education

Similar to primary and secondary education, emphasis was given to higher education as a major source for meeting the country's needs for highly trained human resources. In this

regard, the number of universities that were only 2 has increased to 8, increasing the intake capacity from 18,946 in 2001/02 to 36,405 in 2004/05. During the same period, the number of students increased from 87,413 to 172,111. Participation of women has reached 24% as well. Even though the figure has increased, participation in higher education has not exceeded 1.5%. The ratio being 125 to 150 higher education students per 100,000 people. The participation of private universities has continued to increase at a higher rate. In 2003/04, university level education was offered in 71 private universities/colleges at a diploma level, and in 34 universities/colleges at a degree level. The total number of students in these institutions being 39,125 constituting 23% of the total number of students in higher education institutions.

The focus to move forward will be on continuing to strengthen the management and financing of universities and expanding them, but at a slower pace than during the preceding years. Measures include accreditation of 10 new private institutions, conversion of two public colleges to full-fledged universities, and strengthening the cost-sharing arrangement under which students repay some of the costs of their education once they are employed.

1.2.3 Health and HIV/AIDS

1.2.3.1 Health

Recognizing the low level of health development in Ethiopia and to improve the services in this sector, the Government's health strategy has targeted the most common poverty-related diseases including malaria, Tuberculosis (TB), childhood illnesses, and HIV/AIDS. It has also been shifting services to improve the health needs of rural people, who make up 85% of the population. In line with this, the Government launched the Health Extension Worker Program (HEWP), to move services out from facilities to the household and village level. So far, 3,000 women workers have been trained to deliver basic sanitation, immunization, and other health services. Besides, over 7,000 additional health workers are being trained to be deployed to expand the service of the program nationwide. New health centers and institutions have been established as well.

The steps taken and results achieved during SDPRP period include the following:

- Training of over 10,500 new nurses, technicians, and front-line health workers;
- Increased health budget from 12 Birr per person in 2001/02 to about 19 Birr per person today (by the end of 2004/05);
- Built over 1,900 new health posts and centers, increasing the share of the population living within a radius of 10 km from 51% to 64%;
- Developed and put into effect a Multi-sectoral HIV/AIDS Plan, along with a Social Mobilization Strategy against HIV/AIDS which is a policy for supplying Anti-Retroviral Treatment (ART) to advanced AIDS cases in addition to expanded service delivery facilities and better tracking, measurement, and prevention programs;
- Immunized over 3 million additional children;
- Introduced a new system of health care financing, where the private sector and donors are encouraged to participate in generating additional income in the form of drug donation; and,
- Meet all targets set for malaria control, child immunization, and family planning programs as well as establishment of health centers.

1.2.3.2 HIV/AIDS

The Government developed and put into effect a Multisectoral HIV/AIDS Plan, expanded service delivery facilities and introduced prevention programs along with a Social Mobilization Strategy against HIV/AIDS, a policy for supplying ART to advanced AIDS case.

Trend analysis of HIV/AIDS prevalence indicates that the urban epidemic appears to have levelled off at high prevalence in the past years while the rural epidemic gradually increases, with a reduced rate of progression, resulting in a slowly growing overall prevalence. Against the SDPRP target of sustaining the prevalence rate at 7.3% (2001/02), the rate has decreased to 4.4% by the end of the program period. The prevalence rate between the ages of 15-24 has declined to 8.6% in 2004/05 while the SDPRP target was to reach at 10% from its initial level of 12% at the beginning of the program period. In general, the number of people living with HIV/AIDS is on the highest side in Amhara, Oromia, Addis Ababa, SNNPR, and Tigray

Owing to expansion in the number of health centres, the rate of HIV positive pregnant women from Antenatal Care (ANC) receiving complete course of ART has reached 42% from its targeted rate of 15% by the end of the SDPRP period. About 35,000 orphans and vulnerable children have received support by the end of 2004/05 from the target level of 69,000. By the end 2004/05, with respect to the provision of ART, 26,241 patents (12,836 men, 12,462 women and 943 children below the age of 15) have received the treatment from the target of providing the medicine to 24,000 patents. The progresses achieved have been attributed to provision of the treatment at no cost to 94% of the patients.

At the federal level, 15 government institutions established HIV/AIDS fund. At the regional level, Amhara, Tigray, SNNPR, Addis Ababa, Afar, and Benshangul-Gumuz have started the process.

The Government launched the National HIV/AIDS Forum to deal with coordination issues. Similar structures were formed in all the regional states and down to the *kebele* level. Voluntary Counselling and Testing (VCT) before marriage, preventing early marriage, avoiding harmful traditional practices, and provision of support to HIV/AIDS orphans and vulnerable children also add to the encouraging results.

1.2.4 Water Resources Development

In order to make a good use of water resources in the country, the Government has launched a long-term plan focused on provision of clean water supply, development of irrigation systems and electric power generation. Notable results include:

- Provision of access to clean water supply has increased from 23% to 35% in rural areas and from 74% to 80% in urban areas during the period 2001/02 to 2004/05;
- With regard to expansion of rural drinking water supply schemes, construction of 553 deep wells, 1,581 shallow wells, and 150,904 hand-dug wells, 3,977 spring development were undertaken;
- In respect to urban drinking water supply, pre-design studies for 266 projects, construction of 44 projects and rehabilitation of 46 projects have been undertaken;
- Small, medium, and large-scale irrigation projects have been completed according to the plan. Available data indicates that by the end of 2004/05, the total size of land

developed through irrigation has reached 62,057 hectares. Pre-design studies have been initiated to irrigate 8,293 hectares through small-scale and 9,220 hectares through medium and large-scale irrigation; and,

- Water supply systems were built or rehabilitated in 83 towns, benefiting some estimated 1.6 million people, studies or design work are underway for another 47 towns.

The challenges in the water sector include keeping rural systems operational and maintained, and financing the large up-front investment costs of city and town schemes. To address this, the Government is moving towards a system of organizing communities to take responsibility for village water supplies, and for commercialization of urban water supply systems.

1.2.5 Roads

During the SDPRP period, priority has been given to new road construction and major rehabilitation/upgrading/maintenance work. Accordingly, out of the targeted 5,637 km road development, 5,561 km were completed; of which 1,276 km were new rural roads. Road density has increased from 32.3 km/1,000 km² in 2001/02 to 33.6 km/ 1000 km² by the end of the program period (2004/05).

The main challenges are rising adequate financing for the major investments required, ensuring continued maintenance, and the limited domestic construction capacity. A major effort is now being undertaken to develop the domestic construction industry.

1.2.6 Telecommunications

Telecommunication services were poorly developed and excluded the needs of the rural community until the situation has started to reverse in the recent years due to opportunities created by the information and communication technology, and the steps taken by the Government to focus on network expansion as well as service improvement and expansion packages.

Major tasks undertaken during the SDPRP period with regard to telecommunication and information technology include the following:

- Provision of broadband, multimedia and internet services;
- Laying underground fiber-optics cables covering large areas;
- Conversion of hand operated semi-automatic telecommunication centers into digital systems;
- Undertaking preliminary preparations to implement rural telecommunication expansion projects, extending telephone services at the *kebele* level;
- Major expansion of telephone coverage, from about 400,000 lines at the beginning of SDPRP to over 1 million by the end of 2004/05; and,
- Reductions in the cost of international calls and of Internet connections, and corporate reforms of Ethiopian Telecommunication Corporation (ETC) to increase efficiency.

Ethiopia has made huge investment (8 billion Birr) in basic multi media infrastructure backbone to extend network expansion for *woreda*-net, cable-net and agri-net projects. By the end of 2004/05, the number of users has increased to 620,000 for regular fixed telephone lines, 410,630 for mobile phones and 17,375 for Internet lines.

1.2.7 Energy

In the past three years, with regard to electric power generation, the total power generated from the inter-connected and self-contained systems (ICS and SCS) has increased from 473 Mega Watts (MW) in 2001/02 to 768.5 MW and 791 MW in 2003/04 and 2004/05, respectively. During the same period, the power generated from self-contained systems increased from 19.99 MW to 22.78 MW. Total length of high voltage transmission lines (230 kilo volt, 132 kilo volt, 66 kilo volt and 45 kilo volt) has increased from 6,304.22 km in 2000/01 to 6,534.04 km and 7,927 km in 2003/04 and 2004/05, respectively. The length of distribution lines has increased from 9,512.9 km in 2001/02 to 13,798 km in 2003/04 and 25,000 km in 2004/05 as well.

1.2.8 Capacity Building and Good Governance

The Government has formulated the National Capacity Building Strategy/Program, which is considered to be critical for broad based and sustainable growth. Implementation of the Program is being undertaken step by step to strengthen the democratisation process in the country. Developments in the various aspects of the Program: Civil Service Reform, Justice system Reform, Improved Democratic Governance, and Decentralization are outlined below:

1.2.8.1 Civil Service Reform

The main objective of the Civil Service Reform program is to help effectively implement and efficiently enforce government policies, programs and strategies in a transparent and accountable manner. Activities undertaken through the Reform during SDPRP period include the following:

- With the framework of the five sub-programs of the Reform program, new and amended legal frameworks and business processing system were put in place;
- Civil service laws and regulations have been passed and put into effect in areas including recruitment, selection, promotion as well as transfer;
- The new budgeting and accounting systems base line studies were conducted and are being implemented;
- Approved by the Council of Ministers, the service delivery policy and customer complaint handling manual prepared and implemented;
- Code of ethics prepared for civil servants, government officials, judges and prosecutors and for people's representatives;
- Necessary measures taken to capacitate prosecutors, police officers, courts as well as the media;
- Results of ethics education studies were passed to the respective executive authorities for implementation;
- Implementation of the findings of the strategic planning and management study by the federal and regional executive bodies; and,
- As a result of the introduction of Business Processing Re-engineering (BPR), some institutions undertook a reform on their service delivery system and hence certain procedures were cut from weeks to a matter of days or hours.

1.2.8.2 Justice System Reform Program

The Justice System Reform Program is designed with the objective of improving the legal system that should serve as a basis to speed up the on-going democratization process. Necessary efforts were exerted for implementation through reform programs designed for various legal bodies. Accordingly, during SDPRP, a final consolidated Baseline Study Report covering all pertinent institutions of the justice system including federal and regional law making bodies, courts and police prosecution services, higher education institutions providing legal training, and civil society organizations, etc has been produced. In addition, the National Court Administration Reform Program has been already implemented at the Federal Supreme Court Level. Study on justice system and working manual of law enforcement organs conducted and justice sector capacity building program prepared as well. Moreover, the judicial training center has been established, equipments and facilities procured and the center has started training federal and regional judges and prosecutors.

1.2.8.3 Improved Democratic Governance

Progresses achieved in this area include:

- Study for enhancing the public consultation mechanism through TV and radio in order to reach out the wider public has been completed and report produced. The training for improved administration and operation of law enforcement organs is underway;
- A human rights Commission and Ombudsmen's office have been established, Commissioner and Ombudsmen appointed as well. Efforts will continue to strengthen the institutions with the establishment of working systems and procedures;
- National and regional elections have been held in 2005. Over 25 million citizens participated in the election;
- Names and qualifications of approved judges have been publicly announced for reasons of transparency and judicial independence;
- The Government consulted with different groups in society and held public debates over policies to an extent which had not taken place in Ethiopia before; and,
- The National Action Plan (NAP) on gender has been formulated. The Government has also taken steps to improve the condition of women, including passing laws to protect women's rights.

1.2.8.4 Decentralization

Progress has been made on a number of important areas, most notable ones being:

- The commencement of a study on human resource plan and training needs assessment and preparation of human resource development guidelines at the *woreda* level;
- Efforts have been wedged to expand the participation of the rural population in development, in building democratic system as well as to function within an organized administration, a manual has been prepared and put into effect to encourage and secure adequate participation of the public in all activities;
- Efforts have been wedged to enhance the capacity of officials at *woreda* level and to strengthen the organizational structure of the *woreda* administration, an assessment study was conducted in selected *woredas* and *kebeles*; and,
- With support from development partners, studies were conducted on good governance, structure of formulae governing region-*woreda* financial transfers, *woreda* revenue collection, and patent right as well as on special subsidies to *woredas*.

1.2.9 Industrial Development and Small-Scale Employment Generation

Industrial development is the driving force for the overall development of the economy. The sector has shown encouraging progress as a result of the investment policy and strategy designed by the Government. Among the steps taken to create a conducive environment to encourage private and foreign investment, streamlining bureaucratic procedures such as customs clearance within hours, and removing institutional bottlenecks, increasing the supply of affordable and, strengthening finance and banking services, quality management and improving the market for businesses are notable ones.

The results have been significant growth in services, trade, industry, and construction during the SDPRP period, and some real success stories in new businesses. For instance, there has been investment of 2.6 billion Birr (over US\$300 million) in new horticulture businesses that supply the European market, which has created many new jobs for the rural poor, especially for women as well as generating new export earnings valued at over US\$8 million during 2004/05.

The annual growth of value added for private medium and large-scale manufacturing industries averaged about 21% while that of the public sector averaged 7%. The share of the private sector in the value added of medium and large-scale manufacturing has increased from 27.4% in 2002/03 to 29.9% in 2003/04. Although a higher growth rate is registered in public manufacturing industries, the averaged growth rate of privately owned ones outweigh those under the public in the time frame considered.

The Government's program under the PASDEP will focus on strengthening the small-scale manufacturing enterprises, as they are the foundation for the establishment and intensification of medium and large-scale industries in addition to opening the opportunity for employment generation for those not engaged in the agricultural sector. It will also serve as alternative/additional income source for those involved in agriculture.

Achievements in the areas of textile and garment, metal and woodwork, food processing, construction work, municipality services can be sighted as best practices. This has also greatly contributed towards reducing unemployment rate in Addis Ababa.

Accordingly, in 2004/05, credit service of 109,436 million Birr has been given to loan-scheme beneficiaries; of which, 39.6% is accounted by the construction sub-sector. In addition, marketing, trade development, and training services have been given to 29,857, 5,094, and 40,435 people, respectively. 16,556 people have received manufacturing tools in construction, and textile and garment sub-sectors as well. During the same period, the number of people that became part of cooperatives in the various sub-sectors has reached 58,659. Moreover, the number of people involved and benefited from waste collection and disposal activities, formation of natural fertilizer/compost, miniature stores and mini markets has reached 8,384, 958, 5,089, and 13,292, respectively. In general, the sub-sector has created fixed and temporary jobs for 107,283 people.

Furthermore, the sub-sector will give more emphasis to animal breeding, poultry farming, silk production, honey production, small-scale sewing and metal works, construction work, waste collection and disposal activities, car parking services, maintenance services as well as establishment of miniature stores. Hence, efforts will be made to strengthen the sub-sector

through provision of land, credit services, organizational support, creating market link, training services as well as improvements in tools/machinery.

1.2.10 Urban Development

Prominent successes during the SDPRP period with regard to urban development include the following:

- With regard to nation wide urban development planning and regulations, the Government has formulated and put in place urban development policy in 2004/05. Regarding urban land lease administration, Proclamation No. 272/2000/01 was revised and reproduced. In the area of compensation for land allocated for public use, a new Proclamation No. 455/2004/05 was promulgated to ensure the provision of adequate compensation to the property owners;
- With regard to capacity building for the 9 regional states and the 2 city administrations -Addis Ababa and Dire Dawa- relevant training has been provided to 3,771 members of municipalities and *kebele* councils as well as to 1,440 professional staff between 2001/02 to 2004/05;
- The design and administration of capacity building and support programs in urban management that has been supported by development partners;
- Studies, reports and assessments were undertaken regarding urban land and property markets settlement and development plans, financial status of municipalities, housing , and expansion of urban infrastructure;
- Establishment of legal and institutional framework in support of reform measures and good governance in Amhara, Oromia, SNNPR, and Tigray. Likewise, Addis Ababa and Dire Dawa city administrations become administrative cities governed by the charter; and,
- The Addis Ababa Provisional Administration has executed its functions in an effective and coordinated manner by adopting a decentralized and structured reform in undertaking housing developments (upgrading, maintenance and renovation), employment generation, financial management, land administration, environmental conservation as well as in supporting micro-enterprises.

1.2.11 Gender and Development

Since the SDPRP pursued by the Government has placed a strong emphasis on the participation of women in the development process, policies and strategies have been formulated to integrate and mainstream the gender dimensions in economic, social, and political decisions. Hence, the Government has taken strong measures in placing gender responsive goals and targets to reduce the workload of women so as to enable them to participate in political and socio-economic decision-making. Furthermore, progress has been made in the adoption of a new Penal Code, which contains strong measures in support of women's rights. Protective legislations have been passed in terms of women's access to land, credit facilities, and productive resources as well.

Encouraging results have been achieved in conducting awareness creation workshops to introduce gender dimensions in budgetary processes and resource allocation as well as in building the capacity to implement strategies. Table 1.3 below describes SDPRP pro-poor sectors and corresponding indicative targets and outcomes against the set targets.

Table 1.3: Outcomes Against Selected Thematic/Sector Targets for the Period of SDRP

S.N	Indicators	Targets for SDRP Period (2002/03-2004/05)	Status Beginning of SDRP Period ¹	Outcomes by the end of SDRP 2004/05	Source
1	Agriculture				
	Growth of agricultural value added (%)			13.4	Ministry of Agriculture and Rural Development (MoRAD)
	Cumulative number of households who benefit from the extension package (in million)			6.9	
	Cumulative number of cooperatives engaged in the distribution of improved seeds and fertilizer			4092	
	Cumulative number of farming households who receive joint certificates (in million)			4.1	
	DAs that receive extensive technical and vocational training in agriculture			23378	
	Cumulative number of F ² TCs			5493	
2.	Education				
	Number of students in primary school (in million)		8.1	11.44	Ministry of Education (MoE)
	Gross Primary Enrollment (%)	66	61.6	79.8	
	Male			88	
	Female			71.5	
	Gross primary enrolment between the age of 7 to 14 (%)		52.2	67.8	
	Male			72.5	
	Female			62.9	
	Number of primary schools		11780	16513	
	Literacy rate (%)		29.2 (1999/00)	37.9 (2004/05)	Central Statistical Agency (CSA)
3.	Health				
	Contraceptive prevalence rate (CPR) (%)	24	8	15	Demographic Health Survey (DHS)
	Pre-natal care coverage (%)	45	30	42	Ministry of Health (MoH)
	Infant mortality rate	85/1,000	97/1,000	77/1,000	CSA
	Under five mortality rate		140/1,000	123/1,000	
	Dephteria Pertusis and Tetanus (DPT3) coverage (%)	70	50	50	MoH
	Measles vaccination (%)		41	61	
	Number of health stations	2,667	1,311	4,211	
	Number of health centers	585	412	600	
	Number of hospitals	117	115	131	
	Usage of health services (%)	50	27	30	
	Heath coverage (%)	65	52	72	
4	Roads				

¹ The beginning of the SDRP period is in most cases 2001/02 unless otherwise specified.

	Road density (km/1,000 km ²)	32.3		33.6	Ethiopian Roads Authority (ERA)
	Road density (km/1,000 people)	0.49		0.51	
	Total road network (km)	35,693	33,297	37,018	
	New road construction (km)	5,637		5,561	
5.	HIV/AIDS				HIV/AIDS Prevention and Control Secretariat
	HIV prevalence among pregnant mothers age 15-24 (%)	10		8.6	
	Overall HIV/AIDS Prevalence Rate (%)	7.3		4.4	
	Percentage of HIV positive pregnant women receiving a complete course of ART prophylaxis	15		42	
	Number of patients taking ART	24,000		21,120	
	Orphans who receive support	200,000		69,000	
	Preparation of directive/guideline for orphans	1		1	
6.	Water				Ministry of Water Resources
	Rural (within distance of 1.5 km)		23 (1999/00)	35	
	Urban (within distance of 0.5 km)		74 (1999/00)	80	
	Cumulative farm land developed with irrigation (ha)			62,057	

CHAPTER II

Trends in Growth, Well Being and Poverty

2.1 Background

Poverty reduction and its ultimate eradication in all its dimensions have been and still are the overriding development agenda of the Government of Ethiopia. In broader terms, two dimensions of poverty have been identified: income and non-income dimensions of poverty. Addressing both dimensions of poverty has been important components of the MDGs as declared by the heads of states at the Millennium Summit in September 2000 that set out goals and targets that needs to be met by the year 2015.

The measurement and analysis of poverty and inequality is crucial for understanding peoples' situations of well-being and factors determining their poverty situations. The outcomes of the analysis are to be used to inform policy making as well as in designing appropriate interventions and for assessing effectiveness of on-going policies and strategies. Therefore, the Government of Ethiopia has made poverty analysis to be an integral part of the overall M&E System since 1996 as part of its endeavor to addressing the poverty agenda.

There have been three major sources of information on poverty in Ethiopia: a series of WMSs, undertaken every three years since 1996, which track household characteristics and the non-income dimensions of poverty; the 5-yearly HICESs, which measures income poverty; and the recent PPA, which assessed people's views on poverty issues and programs. CSA has been conducting the HICES every five years since 1996 in order to gather income and consumption expenditure data. So far, the HICES was conducted three times in 1995/96, 1999/2000 and 2004/05.

This chapter draws on these three sources, which are the main official instruments for tracking poverty and welfare. The outcomes from these sources are also supplemented by trends in relevant macroeconomic indicators so as to get a feel on the linkages between growth and poverty reduction efforts. In addition, there are a range of administrative data and surveys (such as school census data, the Demographic and Health Surveys, and numerous specialized poverty studies, and findings, which are used to inform the sectoral chapters (Chapter VII).

2.2 The Income Dimension of Poverty

Income or consumption traditionally measures material deprivation. Especially consumption rather than income is viewed as the preferred welfare indicator because consumption better captures the long-run welfare level than current income. Consumption may better reflect households' ability to meet basic needs. Income is only one of the elements that allow consumption. Consumption reflects the ability of household's access to credit and saving at times when their income is very low. Hence, consumption reflects the actual standard of living (welfare). Consumption is better measured than income. In most developing countries,

income report of households is likely to be understated compared to consumption expenditure report. Income is so erratic and seasonal that it may be very difficult for respondents to recall.

Moreover, for consumption to be an indicator of household's welfare, it has to be adjusted for difference in the calorie requirement of different household members (for age and gender of adult members). This adjustment could be made by dividing real household consumption expenditure by an adult equivalent scale that depends on the nutritional requirement of each family member. The adult equivalent scale must therefore be different for different age groups and the gender of adult members. Besides, household consumption may have to be adjusted for differences in prices across regions and for different point of time to take care of the difference in the cost of basic needs across space and over time.

Hence, many of the income poverty measures (such as the head count ratio, poverty gap ratio, and the squared poverty gap ratio) use consumption rather than income in the conduct of poverty analysis.

2.2.1 Household Consumption

This portion of the chapter provides analysis of the income/consumption dimensions of poverty and inequality situations based on the 2004/05 HICES and assess its dynamics since 1995/96 using HICES data sets for the respective periods. It is not aimed at providing outcomes of a full-fledged poverty analysis rather to highlight the basic outcomes of the analysis with focus on national, rural, and urban dimensions of income/consumption poverty. The full-fledged poverty analysis work including details on regional dimensions of poverty will be subsequently issued in a separate self-contained poverty analysis report.

As noted above, one of the dimensions of well-being is the monetary dimension of poverty called lack of opportunity or material deprivation. The income dimension of poverty is being measured by real consumption expenditure valued at 1995/96 national average prices in Ethiopian Birr. Both real per capita household consumption expenditure and real per adult household consumption expenditure are reported along with family size and the level of calories consumed in Table 2.1. The changes in real per-capita consumption expenditure and real per adult consumption expenditure are provided in Table 2.2 below.

Per capita real household consumption expenditure is obtained by dividing real household consumption expenditure by family size. Per adult real household consumption expenditure is per capita real household consumption expenditure adjusted for age and gender of household members obtained by dividing real household expenditure by adult equivalent family size. The World Health Organization (WHO, 1985) adult equivalent scale has been used to determine adult equivalent family size. The average family size is 4.8 in 2004/05, which is slightly lower than that of 1995/96 and 1999/00, while adult equivalent family size is 3.9, which is almost the same as that of 1995/96 and 1999/00. In general, average family size is higher in rural areas than in urban areas.

The level of real total per capita household consumption expenditure stood at 1,256 Birr (US\$146) in 2004/05 with food accounting for 577 Birr and the rest 678 Birr for non-food.

Compared to that of 1999/00, real total per capita household consumption expenditure increased by 19% in 2004/05, which is mainly due to an increase in real non-food expenditure by 50%. In 2004/05, real per capita food expenditure declined by 6% compared to 1999/00 and by 5% against that of 1995/96. The decline in real food expenditure was witnessed mainly in rural areas. This is in part due to higher food-inflation, which is computed to be 34% from 1999/00 to 2004/05. Similarly the share of food in total expenditure declined from 65% in 1995/96 to 56 % in 2004/05.

However, the national average level of calorie consumed per adult is higher in 2004/05 (2,746.4 kilocalorie per day per adult) than the level indicated during the previous two surveys: 1995/96 & 1999/00. The corresponding level in 1995/96 and in 1999/00 was estimated at 1,954.0 and 2,606.2 kilocalorie per adult equivalent, respectively. This perhaps could be that, in 2004/05, households have shifted to cheaper calorie sources when food became relatively expensive.

The level of real total per adult household consumption expenditure, which is used to calculate poverty, was 1,542 Birr. This magnitude is higher than the level in 1999/00 and 1995/96 by about 16% and 17% in real terms, respectively. This is tantamount at least to overall increase in material welfare over the years. Developments in the non-income dimension of poverty/well being is addressed in section 2.3 below.

Inequality: As indicated by the Gini Coefficient (Table 2.1) income/ consumption inequality has increased consistently over time in urban areas from 0.34 in 1995/96 to 0.38 in 1999/00 and further to 0.44 in 2004/05 while inequality has not changed in rural areas over the period. The Lorenz curve for urban consumption also tells the same story (Figure 2.1). The Lorenz curve for rural consumption is almost identical with that of the Lorenz curve for national level consumption.

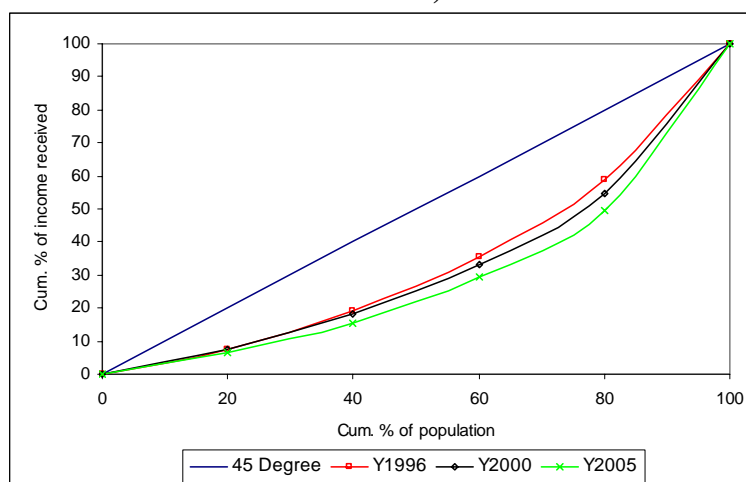
Table 2.1: Real Annual Per Capita Consumption Expenditure at 1995/96 Constant Prices Birr

Item	1995/96			1999/2000			2004/05		
	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
Real total expenditure per capita	1,035	1,411	1,088	995	1,453	1,057	1,147	1,909	1,256
Real total expenditure per adult	1,250	1,693	1,312	1,261	1,751	1,327	1,422	2,260	1,541
Kcal consumed per day per adult	1,938	2,050	1,954	2,723	1,861	2,606	2,806	2,387	2,746
Share of food in total expenditure	0.6	0.56	0.60	0.67	0.53	0.65	0.57	0.50	0.56
Household size	5.1	4.7	5	4.9	4.6	4.9	4.9	4.3	4.8
Adult equivalent household size	4.2	3.9	4.2	3.9	3.8	3.9	4.0	3.6	3.9
Gini coefficient (consumption) (%)	27	34	29	26	38	28	26	44	30

Table 2.2: Changes in Per Capita Consumption Expenditure at 1995/96 Constant Prices (%)

Item	(1999/00 / 1995/96)			(2004/05/1999/00)			(2004/05/1995/96)		
	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
Real total expenditure per capita	-3.86	2.98	-2.85	15.32	31.38	18.78	10.87	35.29	15.40
Real total expenditure per adult	0.88	3.43	1.14	12.74	29.05	16.10	13.74	33.47	17.42
Kcal consumed per day per adult	40.51	-9.22	33.37	3.04	28.24	5.39	44.78	16.42	40.55
Share of food in total expenditure	11.67	-5.36	8.33	-14.4	-5.9	-13.6	-4.37	-10.9	-6.37
Household size	-3.9	-2.1	-2	0.5	-6.7	-1.6	-3.4	-8.7	-3.5
Adult equivalent household size	-7.14	-2.56	-7.14	2.11	-4.99	0.59	-5.19	-7.43	-6.60
Gini coefficient (consumption)	-3.7	11.7	-3.45	0.06	14.80	8.41	-3.6	28.3	4.7

Figure 2.1: Lorenz Curve (of Urban Consumption Expenditure) Overtime (1995/96-2004/05)



2.2.2 Trends in Income/ Consumption Poverty Indices

2.2.2.1 Total Poverty Indices

Total poverty here refers to an aggregate measure of poverty that takes in to account both the food and non-food requirements. Here it is worth noting how poverty lines are established. The most widely used method of estimating poverty line is the cost of basic needs method because the indicators will be more representative and the threshold will be consistent with real expenditure across time, space and groups. First, the food poverty line is defined by choosing a bundle of food typically consumed by the poor. The quantity of the bundle of food is determined in such a way that the bundle supplies the predetermined level of minimum caloric requirement (2,200 kilocalorie). This bundle is valued at local prices or at national

average prices if the objective is to get a consistent poverty line across regions and groups. Then a specific allowance for the non-food goods consistent with the spending of the poor is added to the food poverty line. To account for the non-food expenditure; the food poverty line is divided by the food share of the poorest quartile or quintile. A separate sub-section below is devoted for the analysis of food poverty.

The most widely used poverty indices are incidence of poverty (poverty head count index), the aggregate poverty gap (poverty gap index), and the measure of the distribution of income among the poor (poverty severity index). The **incidence of poverty (headcount index)** represents the proportion of the population whose consumption falls below the poverty line, that is, the share of the population that cannot afford to buy a basic basket of goods and essential non-food items.

The **depth of poverty (poverty gap index)** provides information on how far household's average per adult income/consumption is from the poverty line. This measure captures the mean aggregate consumption shortfall relative to the poverty line across the whole population. In other words, this measure helps to estimate the total resources needed to bring all the poor to the level of the poverty line.

The **poverty severity (squared poverty gap index)** takes into account not only the distance separating the poor from the poverty line (the poverty gap), but also the inequality among the poor. That is, a higher weight is placed on those households further away from the poverty line.

The level of poverty line used to calculate poverty indices is 1,075 Birr at 1995/1996 national average constant prices (Table 2.3). This poverty line was determined during the 1995/96 poverty analyses. It was based on the cost of 2,200 kilocalorie per day per adult and essential non-food items. The food poverty line is 647.81 Birr at 1995/906 national average constant prices (see Table 2.3). To calculate the 1999/00 and 2004/05 poverty indices, first the nominal values of all food and non-food consumption items were deflated by the spatial price indices (disaggregated at regional level relative to national average prices) and temporal price indices (relative to 1995/96 constant prices). Second the 1,075 Birr poverty line is applied to per adult household consumption expenditure in order to calculate head count, poverty gap and squared poverty gap indices.

**Table 2.3: Poverty Lines Used in Poverty Analysis Between 1995/96 and 2004/05
All Measured at 1995/96 National Average Prices**

Item	Food Poverty Line in Birr Per Adult Per Year	Kcal Per Adult	Total Poverty Line in Birr Per Adult Per Year
Poverty line	647.81	2,200	1,075.03
Moderate poverty line	809.76	2,750	1,343.78
Extreme poverty line	485.86	1,650	806.27

National, Rural and Urban Poverty Indices in 2004/2005: Using real per adult consumption expenditure, the levels of total, rural and urban poverty indices for 1995/1996, 1999/00, and 2004/2005 are provided in Table 2.4 below.

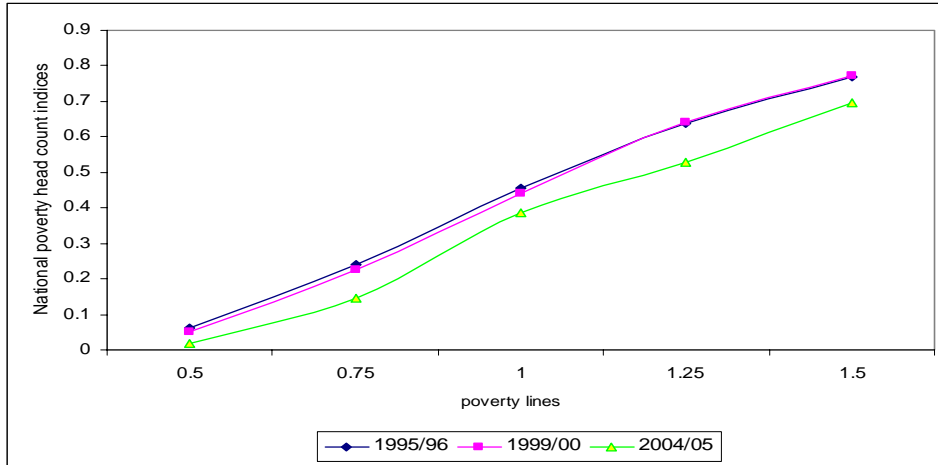
According to the 2004/05 HICES, the proportion of poor people (poverty head count index) in the country is estimated to be 38.7% in 2004/05 (Table 2.4). In 2004/05, while the proportion of the population below the poverty line stood at 39.3% in rural areas, it is estimated to be 35.1% in urban areas. The poverty gap index is estimated to be 8.3% while it is 8.5% for rural areas and 7.7% for urban areas. Similarly, the national level poverty severity index stood at 0.027 with rural poverty severity index (0.027) being slightly higher than that of urban areas (0.026). Both the statistical test and the stochastic dominance analysis confirmed that for all indices (head count, poverty gap and poverty severity indices) urban areas have lower poverty than that of rural areas indicating that poverty is still more of a rural phenomenon. However, over time the gap in poverty between rural and urban areas is narrowing.

Trends in National Poverty: Compared to 1999/2000, poverty head count, poverty gap, and poverty severity indices have declined substantially. The 2004/05 poverty head count index is lower than the index for 1999/2000 by 12% while the poverty gap and severity indices are lower by 30% and 39%, respectively indicating a substantial decline in poverty during the five-year period ending in 2004/05 (Table 2.4). The decline in all poverty indices is statistically different from zero. The stochastic dominance analysis also confirmed the decline in poverty is consistent at various levels of poverty line indicating the robustness of the results (Figure 2). The decline in poverty is also much higher during the SDPRP period than the period preceding it.

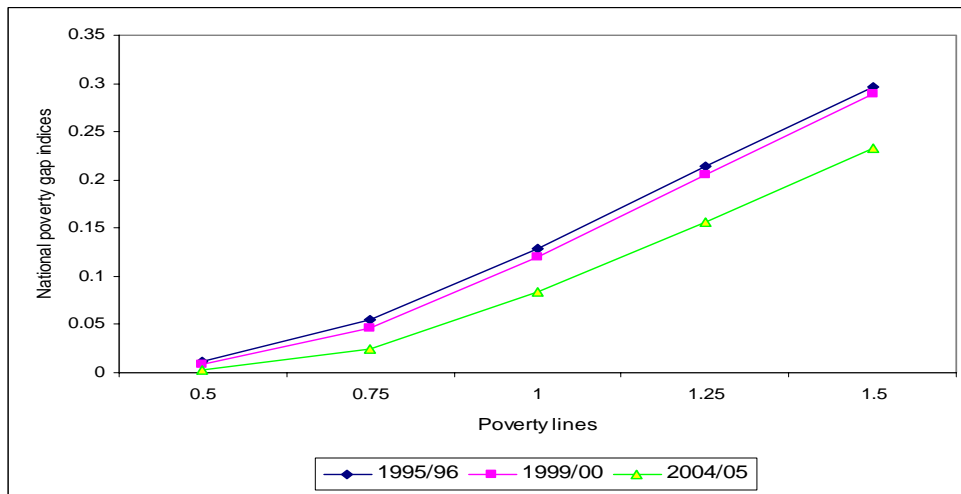
Table 2.4: Trends in Total Poverty Indices at National Level and by Rural and Urban Areas

Level	Indices			Changes in the Indices (%)		
	1995/96	1999/00	2004/05	1999/00 over 1995/96	2004/05 over 1995/96	2004/05 over 1999/00
National						
Head count index (P_0)	0.455	0.442	0.387	-2.7	-14.8	-12.4
Poverty gap index (P_1)	0.129	0.119	0.083	-7.7	-35.4	-30.0
Poverty severity index (P_2)	0.051	0.045	0.027	-12.2	-47.1	-39.8
Rural						
Head count index (P_0)	0.475	0.454	0.393	-4.4	-17.1	-13.4
Poverty gap index (P_1)	0.134	0.122	0.085	-8.9	-37.0	-30.8
Poverty severity index (P_2)	0.053	0.046	0.027	-12.9	-48.3	-40.6
Urban						
Head count index (P_0)	0.332	0.369	0.351	11.1	5.9	-4.7
Poverty gap index (P_1)	0.099	0.101	0.077	2.0	-22.1	-23.6
Poverty severity index (P_2)	0.041	0.039	0.026	-7.1	-38.2	-33.5

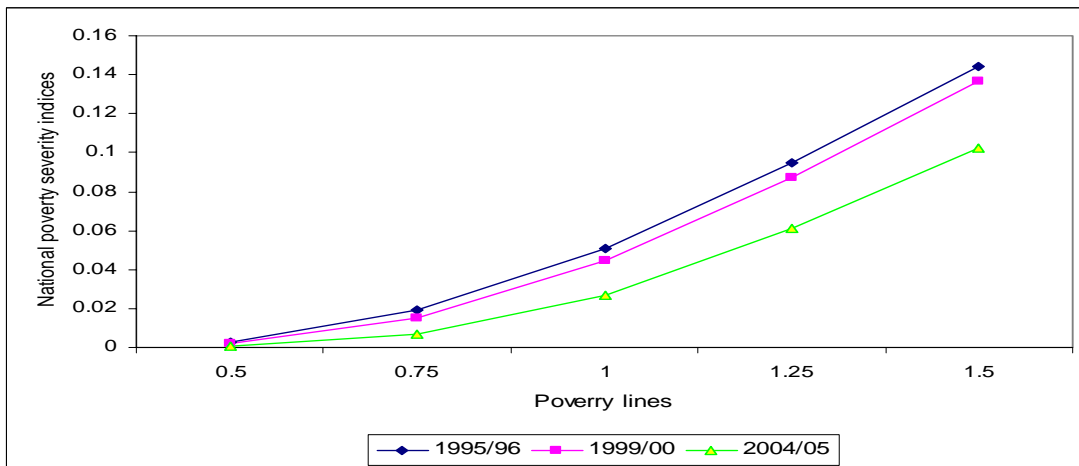
Figure 2.2: Comparison of National Poverty Over Time (1995/96-2004/05)



Panel (a): Poverty head count indices



Panel (b): Poverty gap indices



Panel (c): Poverty severity indices

Trends in Rural and Urban Poverty: Much of the decline in national poverty is attributed to a decline in poverty in rural areas. The decline in rural poverty is substantial; and the decline is much higher during the SDPRP period. The head count, poverty gap, and poverty severity indices in 2004/05 for rural areas is lower by 13%, 31%, and 41%, respectively than the levels in 1999/00. The difference in the indices between 2004/05 and 1999/00 is statistically significant. Similarly the robustness of the decline in poverty is confirmed by the first, second and third order stochastic dominance analysis. The analysis indicates that there was a decline in the proportion of rural people who are below the poverty line and the average gap of the poor from the poverty line and improvement in the distribution of income among the rural poor.

The decline in rural poverty over the last ten years is also documented by other independent studies namely the panel study of rural households conducted by the Economics Department of Addis Ababa University, in collaboration with Oxford University and International Food Policy Research Institute (IFPRI). According to this study, consumption poverty head count index stood at 55% in 1995. In 2004, the poverty head count index declined to 36% indicating a substantial improvement in at least the material well being of people. The PPA conducted in 2004 indicated that the Ethiopian rural population is satisfied by the extension services provided by the Ministry of Agriculture & Rural Development (MoARD) and Bureau of Agriculture and Rural Development of regional governments indicating that provision of rural extension services is one of the factors for reducing poverty in rural areas. Dercon, Gilligan, Hoddinott and Woldehanna (2006)², using the Ethiopian Rural Household Survey found that there is a strong correlation between road infrastructure expansion and a decline in consumption poverty.

In general, the significant decline in rural poverty is clearly attributed to the wide-ranging and multi-faceted pro-poor programs that have been implemented in rural areas such as menu based extension programs to support marketization of smallholder agriculture; the food security programs; and the recent productive safety net programs among others. The decline in urban poverty between 2004/05 and 1999/00 was only limited to the depth and severity of poverty. The decline in the proportion of people below the poverty line (poverty incidence) is not found to be statistically significant and it did not also pass the first order stochastic dominance test. The decline in urban poverty gap and severity could be attributed to government policies indicated in sector development programs as articulated in the SDPRP as well as the on-going efforts waged by the Government to creating favourable environment for private sector investment and job creations in urban areas.

Through triangulating all available information on poverty and welfare (quantitative versus qualitative, small scale versus surveys of national scope, etc), a full-fledged poverty analysis will be conducted subsequently. The determinants of poverty analysis work (as planned in the full-fledged poverty analysis phase) would help flesh out the factors behind the observed trends in poverty from 1999/00 to 2004/05.

² Dercon, S., D.Gilligan, J.Hoddinott and T. Woldehanna. 2006, The impact of roads and agricultural extension on crop income, consumption and poverty in fifteen Ethiopian villages, mimeo.

Trends in Absolute Number of Poor Population: The decline in relative aggregate measures such as poverty head count indices may not give a complete picture of poverty situation overtime unless it is complemented by the trends in the absolute number of poor people. Overall, at national level, the absolute number of poor people declined from 28,063,909 in 1999/00 to 27,523,414 in 2004/05. In other words, the number of poor people has declined by about 2% from 1999/00 to 2004/05.

2.2.2.2 Food Poverty

The achievement of food self-sufficiency is one of the key objectives of the Government as articulated in its rural development policies and strategies, which is also consistent with one of the MDGs of eradicating extreme poverty or hunger. As for total poverty, the various aggregate poverty measures could also be computed for food poverty. The food poverty index measures the proportion of food-poor people that fall below the food poverty line.

Accordingly, the national food poverty index declined from 42% in 1999/00 to 38% in 2004/05. This showed that the food poverty index declined by 9% from 1999/00 to 2004/05. As shown in Table 2.5 below, the decline in food poverty index from 1999/00 to 2004/05 is significant at 5% level of confidence (t-statistics=2.6).

Poverty reduction and its ultimate eradication being the overriding development agenda of the Government, on-going programs/interventions (particularly since the on set of the SDPRP) in pro-poor sectors such as rural development, food security, water, health and education, seems to have contributed to the decline in food poverty.

When food poverty is decomposed in to rural and urban areas, it is found that both rural and urban food poverty head count index has declined by 7% and 25%, respectively although the decline in the food poverty head count index for rural areas is not statistically significant.

Despite the 7% decline in rural food poverty head count index and the 25% decline in urban food poverty index from 1999/00 to 2004/05, no decline has been observed in the depth and severity of food poverty during the period. Given the substantial increase in food prices during the survey period, it is not surprising to witness stagnation in the depth and severity of food poverty. As many rural poor households are net buyers of food, it is likely that rising food prices may have negatively affected the food poverty situation of people in rural areas. In terms of physical calorie in-take, national food poverty index showed an 8% decline over the period (53% decline in urban calorie-based food poverty head count index versus 7.6% rural calorie-based head count index).

Table 2.5: Trends in Food Poverty Indices at National Level and by Rural and Urban Areas

Level	Indices			Changes in the Indices (%)		
	1995/96	1999/00	2004/05	1999/00 over 1995/96	2004/05 over 1995/96	2004/05 over 1999/00
National						
Head count index (P ₀)	0.495	0.419	0.380	-15.5	-23.3	-9.2
Poverty gap index (P ₁)	0.146	0.107	0.120	-26.8	-17.5	12.8
Poverty severity index (P ₂)	0.060	0.039	0.049	-34.494	-18.4	24.5
Rural						
Head count index (P ₀)	0.516	0.411	0.385	-20.4	-25.5	-6.5
Poverty gap index (P ₁)	0.152	0.103	0.121	-31.9	-20.5	16.8
Poverty severity index (P ₂)	0.062	0.038	0.049	-39.2	-21.5	29.0
Urban						
Head count index (P ₀)	0.365	0.467	0.353	28.0	-3.3	-24.5
Poverty gap index (P ₁)	0.107	0.127	0.117	18.4	9.0	-8.0
Poverty severity index (P ₂)	0.044	0.047	0.048	6.8	8.4	1.5

2.3 Trends in the Non-Income Dimension of Poverty

By any measure, most Ethiopians live under harsh conditions. However, the encouraging, and striking findings of the WMS -which now go back 8 years- is that almost all indicators have been getting better over time; particularly indicators of access to education and health service nutrition, and access to water and sanitation, although the absolute levels of these indicators remains extraordinarily low compared to at least the Sub-Saharan Africa (SSA) level. This sub-section is a summary of the WMS findings, which are reported on in more depth in the document '*WMS Analytical Report: CSA, 2004*'.

2.3.1 Basic Household Characteristics

According to the 2004/05 WMS, the average household size for the country is 4.8, (4.9 in rural areas and 4.3 in urban). Of the estimated 13.4 million households, about 75% are male-headed and 25% female-headed. It is estimated that about 16% of households are urban dwellers and 84% rural.

A much higher proportion of female-headed households reside in urban areas compared to rural areas. About one-out-of five rural households (22%) and nearly two out of five urban households (39%) are female-headed households.

2.3.2 Literacy & Education

At all levels, irrespective of gender, the proportion of literate population is increasing over the survey years. In rural areas, the literacy rate increased from 18% in 1995/96 to 31% in 2004/05. Though narrowing over time, gaps in literacy rate between rural and urban areas and males and females is still significant. Literacy rate at national level has increased from 26%

in 1996 to 38% in 2004. Male literacy rate increased from 35% in 1996 to 50% in 2004 while female literacy rate increased from 17% in 1996 to 27% in 2004.

School Enrolment: The four surveys undertaken so far confirm the considerable increase in enrollment rates over time both at primary and secondary levels. At national level, primary gross enrolment ratio has doubled as it increased from 37% in 1996 to 74% in 2004 (Table 2.4 below). Secondary level enrollment rates albeit low but nonetheless has still risen from 13% in 1996 to 23% in 2004. It is worth noting at this juncture that the results in this section inevitably differ from the administrative data on education participation presented in Chapter VII as the WMS is based on self-reporting by households, whereas the administrative data is based on school attendance and enrolment records³. Though outcomes from the two sources differ in order of magnitude (marginally), the direction of change is the same and consistent.

Dropout Rates: Although still relatively high, dropout rates as recorded under the WMS have declined significantly, especially in rural areas. Reported primary dropout rate in rural areas declined from 19% in 1996 to 14% in 2004; and at secondary level from 29% to 17%. The declining trend in urban areas has also similar pattern with slower rate. The two major reasons for dropout cited in both primary and secondary schools were 'sickness' and 'need to work'. Among the primary school dropouts, about 27% reported leaving school because they were sick and about 26% because they needed to work, with similar findings at the secondary level.

Proximity to Schools: For almost all households in the country (95%), there is a primary school available within a distance of less than 10 km. Still 35% of the rural population is more than 5 km away from the nearest school; and 50% are at least 1 km away. There is also substantial regional variation. In Benishangul- Gumuz and Somali, 11% and 19% of the population is more than 10 km away from the nearest primary school, respectively.

Access to **secondary schools** is very poor compared to primary schools. Secondary schools are available within 5 km radius for only 27% of total households in the country, and more than 50% of the rural households live 15 km or more away from a secondary school.

The proportion of households that are very far from schools (>10 km in the case of primary) has fallen substantially. The proportion reported less than 5 km has also fallen, but less rapidly than might be expected. Probably because fertility rates are higher in rural areas (where schools tend to be further away), so although many new schools have been built, the proportion of the population within close range has declined less rapidly than the absolute number.

³ Families' perceptions of what is meant by school enrollment may be quite different from the formal definition used by the school system – for example in terms of how frequently the child actually attends, as opposed to whether or not they ever formally registered at school.

2.3.3 Health & Nutrition

Prevalence of Illness: The prevalence of illness in this survey is based on a two-month reference period, and refers to an episode of any health problem (self-reported) by members of the households. Of the total population covered in the survey, about 24% reported that they had health problems at least once over the two months period prior to the date of interview. This incidence, as expected, is higher among rural population than urban; and significantly higher for women than for men in all periods. According to the survey result, the most prevalent illness is malaria, followed by diarrhea.

Access to Health Services: Access to health services in this survey refers to proximity to health institutions, as reported by the households. Not surprisingly, there are major rural-urban differences: in rural areas only about a third of the population has some kind of facility within 5 km, while almost all of the urban population does have facility within the same distance just cited. The proportion of population living more than 20 km away from a health facility has fallen from 20% of households in 1996 to 13% in 2000⁴. Over half of the rural population is now less than 10 km away from either a health post or clinic (2004); although to get to a hospital, 77% of rural families still need to travel more than 20 km.

Status of Utilization of the Nearest Health Service Institutions: 49% of the households reported that they have not used any of the nearest health services at all due to one or more reasons. Nearly two-fifth of the households (40%) reported that they were unable to use the service because of its distance. This is followed by 29% of the households who reported that they 'have no need of the nearest' health institutions and about 15% of the households who reported that the service charges are 'too expensive'.

Nutritional Status and Child Health: Anthropometric measurements (weight and height) are used to assess the degree of malnutrition among population groups and help, for instance, to set priorities of food-targeting policies to the severely malnourished groups. Children are chosen for the purpose of anthropometric analysis because they are more susceptible to nutritional deficiencies, which could be an indication of lower welfare status of households. In addition, nutritional indices in the case of children are sensitive indicators and signal serious problems that might require an immediate policy response.

Wasting: Wasting, a condition of low weight-for-height is a reflection of recent malnutrition, which may be caused by acute food shortage or serious infections. According to the findings of the survey, the prevalence of wasting at country level is about 8%. Wasting is higher among rural children (8%) than urban (7%), and the prevalence of wasting for boys is higher by about 1% than girls in both urban and rural areas.

Stunting: Height-for-age, or stunting, is an indicator of chronic malnutrition. It indicates long-term or accumulated nutritional deficiency resulting from lack of adequate dietary intake over a long period of time, or recurrent illness. At country level, the share of children

⁴ The fact that more detail was included in 2004 on types of facilities makes it difficult to compare 2004 with the earlier survey years.

aged 3 to 59 months that suffer from chronic malnutrition declined from 57% in 1999 to 47% in 2004. The prevalence is much higher among rural children (40%) than urban (30%). Distribution of stunted children by gender also suggests that at country level and in rural areas male children are slightly more malnourished on average than female children.

Under Weight: Weight-for-age, based on the principle that a child has an expected weight for his/her age, measures the general nutritional status of children. The prevalence of underweight children in the country was 37% in 2004. This considerable proportion of underweight children; which reflects both wasting and stunting, signals the extensive distribution of malnutrition among young children of the country. The prevalence of underweight children across regional states varies from as low as 13% in Addis Ababa to as high as 45% in Amhara region.

Prevalence of Malnutrition Over Time: The good news is that all four consecutive WMS surveys show a consistent decline in malnutrition over time; with a tremendous decrease in stunting in both urban and rural areas (*see WMS Report: 2004*). The rate of stunting in urban areas fell from 58% in 1996 to 30% in 2004; and fell from 67% to 48% in rural areas.

Child Immunization: Universal immunization of children deals with six vaccine-preventable diseases, namely tuberculosis, diphtheria, whooping cough, tetanus, and polio. In the 2004 WMS, households were asked whether or not their children (aged 0-59 months) had ever been immunized against Measles, Bacille Calmette Guerin (BCG), DPT and Polio. Out of the total children less than five years of age, about 57% were vaccinated against Measles and 55% against BCG. About 58% and 83% of children were vaccinated any type of DPT and Polio vaccination, respectively.

Delivery Attendance: Assistance during delivery has strong health implications for mothers and children. Trained personnel do not assist delivery outside health institutions in most cases. In the 2004 survey, the majority of children under five years of age (58%) had been born assisted by a traditional birth attendant (TBA). At country level; only 11% had been attended during delivery by either a delivery nurse; trained traditional birth attendant (TTBA) or other health personnel (7% in rural and 53% in urban). The proportion of children born attended by trained personnel is highest in Addis Ababa (76%); while in rural areas it ranges from 4% in Afar to 25% in Harari. One-fourth of rural women and one-out-of ten urban women were found to have self-assisted during delivery – meaning they had no one to assist them with delivery.

Orphan Children: According to the results of the survey, out of the total number of children under age 18, about 12% are found to have lost at least one parent, comprising 8% that are orphaned of their father, 3% orphaned of their mother, and 1.3 % orphaned by both parents. The proportion of orphans is slightly higher among urban households, and the proportion of children orphaned by both parents is higher in Addis Ababa (3.5%) than other regions. Although the proportion of children orphaned of both parents sounds low, this amounts to an absolute number of over 0.5 million children orphaned of both parents.

2.3.4 Access to and Utilization of Selected Basic Services

The survey presents results on access to, utilization of, and satisfaction with selected facilities including food markets, schools, health services, source of drinking water, telephone, transport services, post office, all-weather road, veterinary services, agricultural inputs, micro-finance, milling services and source of firewood. A brief discussion of the findings is presented in the following sections on proximity of the services, status of usage and reason for not using the services/facilities with exception of education and health services!

Telephone Services: According to the results obtained from this survey, about 45% of the total households need to travel for 15 or more km to reach the nearest telephone service unit. Although access has been improving over time, only 44% of households can get telephone service within less than 10 km, and about 29% are at least 20 km away from such service. About 94% of urban households have telephone within a distance of less than 5 km compared to 17% of rural households.

Roads: About 42% of rural households are now less than 5 km away from the closest all-weather road, while around 58% still need to travel five or more kilometres to reach the nearest all-weather road. The trend over time also indicates that the situation has been improving, with the share of the rural population within 5 km rising from 37% in 2000 to about 42% in 2004.

Transport Services: More than 43% of rural households have to travel over 15 km to access publicly available transport services. The gap is even wider (comparing urban and rural areas) in accessing transport services in shorter distances. About 97% of urban households against 28% of rural households have access to transport services within a distance of less than 5 km.

Veterinary Services: Information on veterinary services is also introduced in the 2004 WMS. In rural areas, slightly less than one-third (31%) has access to veterinary services within 5 km. About 43% need to travel 10 or more km to get veterinary services.

Agricultural Inputs: With regard to accessibility of agricultural inputs, the inquiry was made of households as to how far they need to travel to reach the nearest suppliers of agricultural inputs (fertilizer supplier, improved seeds suppliers and pesticide/insecticide suppliers). It was found that about 70% of rural residents, still need to travel five or more kilometres to get agricultural inputs.

Micro Finance: According to the survey, about one-third (33%) of households need to travel 20 or more kilometres to reach the nearest micro finance services. The proportion with financial services within 5 km is 77% in urban areas and only 17% in the rural areas.

Sources of Drinking Water: According to the survey result, nearly two-thirds of (64%) use drinking water from sources that are not safe. Of the households that have access to safe water, about 13% of the households use water from a protected well or spring, 19% from a public tap, and 4% have their own tap. The problem is much more severe among rural households than urban households. Only 25% of rural households have access to clean water,

as opposed to more than 90% of urban households. In urban areas, 64% of households use a public tap, and 23% use their own tap -either because they are connected to a water supply system, or have their own source.

Distance to Drinking Water Source: The results are based on source of drinking water during the dry season. About 92% of rural households are less than 5 km away from the closest source of drinking water, while around 6% still need to travel 5 to 9 km to fetch water for daily uses. The corresponding accessibility in urban areas is much better. More than 82% can access drinking water within a distance of 1 km. The availability of sources of drinking water within five km radius has not shown much change over time.

More than 93% of the total households reported no change in the source of drinking water available to them during the past 12 months; although 19% reported a change during the past 5 years. As depicted in Table 2.4 below the share of the population with access to clean water increased from about 19% in 1996 to about 36% in 2004.

There is substantial regional variation; over 70% of the households in Amahara and Beneshangul-Gumuz use unsafe water from rivers, lakes and unprotected wells or springs. The findings, on the other hand, have showed that Harari (73%), Addis Ababa (99%) and Dire Dawa (91%) are regional states with better-improved access to safe drinking water.

Source of Energy for Lighting: The survey results show that about 71% of households use kerosene for lighting, followed by firewood (16%) and electricity (13 %). Electricity use is concentrated almost entirely in urban areas – only 0.4% of the rural population reports using a private electricity connection for lighting, and another 0.8% has access to a shared connections. About 75% of the urban residents use electricity.

Table 2.6: Trends in Selected Welfare Indicators Based on Successive WMSs

Sector	Indicator	Year			
		1996	1998	2000	2004
Education	Primary GER (%)	37	52	61	74
	Male	45	63	70	80
	Female	29	41	52	68
	Secondary GER (%)	13	16	17	23
	Male	14	17	19	28
	Female	12	14	15	18
	Literacy rate (%)	26	27	29	38
	Male	35	36	40	50
	Female	17	17	19	27
	Drop out rates the rural areas (%)				
	Primary	19			14
	Secondary	29			17
	Proximity to schools				
	Percentage of those traveling 10 to 15 km to the nearest primary school	5.8	4.1	3.3	3.3

	Percentage of those traveling 20 km and over to the nearest secondary School	44	42	40	34
Health: Immunization Coverage	Measles (%)	39	47	48	57
	BCG (%)	35	47	46	55
	DPT3 (%)	40	52	51	58
Health: Nutrition	Stunting (%)	66	55	57	47
	Male	68	56	58	48
	Female	65	54	55	46
	Wasting (%)	7	10	10	8
	Male	8	11	10	9
	Female	7	8	9	8
	Underweight (%)	45	45	45	37
	Female	43	43	44	37
Water Supply	Percentage of people with access to safe drinking water source				
	Rural	10	14	17	25
	Urban	72	84	92	92
	National	19	24	28	36

2.4 People's Views on Poverty and Services

2.4.1 Findings of the 2004/05 Ethiopian PPA

The 2004/05 Ethiopian PPA also yields important qualitative information on the many dimensions of poverty, complementing the outcomes of the quantitative 2004/05 HICES and WMS. The PPA was conducted over 45 research sites distributed across the country (31 rural and 14 urban) from November 2004 to January 2005. The outcomes of the PPA study aggregated at national level indicated positive developments and challenges. The following highlights the major findings:

- a) PPA findings reveal that considerable progress is being made throughout Ethiopia in *delivering improved services to ordinary citizens*. In rural areas, agricultural extension services appear to be improving quite fast, and primary schooling is available to all, although the quality of the educational experience remains lacking in important respects. Other factors that were cited as contributing to improvements in rural livelihoods over the past 5 years included road improvements, access to potable water, and access to health clinics, although the latter attracted a lot of critical as well as some positive commentary. New livelihood activities were reported in just under 50% of the rural sample, most of them to do with crop or livestock production;
- b) The PPA findings reveal that efforts are being made to *improve urban services*, but with differing emphases in different places and with more energy in some towns compared to others. The most frequently cited improvements are road upgrading, school construction, sewerage and sanitation installation, and provision of communal toilet facilities. Others that are cited a number of times include health posts, market place construction, water supply points, land made available for private house construction, increasing availability of private services (education and health), and

programs to train and provide start-up capital for urban youth. The most prevalent complaints across urban PPA sites concerned the rising cost-of-living (relative to earnings), the prevalence of petty crime and theft, the extent of unemployment, and sanitation problems.

- c) The PPA reveals progress in other areas too. ***Agricultural diversification*** is occurring successfully in some places, especially into fruit and vegetable production, and animal fattening. New and rehabilitated irrigation schemes receive positive mentions, and water pond construction is occurring across rural Ethiopia with mixed feelings so far regarding its efficacy.
- d) In respect of ***empowerment***, progress in awareness of rights and ability to voice views is evident, although slower change is felt to be occurring in the reciprocal engagement by public officials in this opening up of society. Awareness of HIV/AIDS and its causes was evident in nearly all research sites, suggesting that education campaigns about the disease have reached widely across the country.
- e) The PPA reveals perception of gradual gains in ***gender equality*** in Ethiopia, principally due to land access equality on death or divorce in the highland regions (rural areas), and increased acceptance of women working (urban areas). Nevertheless a deep conservatism pervades gender roles, severely prescribing what women can and cannot do, especially in rural areas. The proportion of female-headed households is rising, and in rural areas their position is made more vulnerable by social conventions (ban on ploughing etc.) that cause them to have to sharecrop their land out to others. Much remains to be done to promote changing social attitudes so that women can contribute fully to the development process in Ethiopia in the future.
- f) While much of a positive nature has been going on over the past five years, especially in the improvement of ***extension services, social services (education and health), water provision, and road improvements*** in rural areas, there are of course also trends that have opposing effects on people's lives. Undoubtedly, the adverse trend that most pre-occupies rural citizens is the declining size of their farms. More than half the study sites reported farm subdivision and fragmentation as the primary factor causing their livelihoods to get worse. ***Livestock disease and the inadequacy of veterinary services*** are problem areas emphasized in the PPA. Loss of livestock to disease was cited as one of the two top reasons causing downward spirals in the livelihood fortunes of rural families.
- g) Several different measures were used for ranking satisfaction with institutions; in rural areas ***primary schools, idir***, and the ***kebele*** administration emerged as the top three institutions valued by rural citizens. These are closely followed by the agricultural extension system (DAs), peace committees (often stated as "elders committee" or other conflict resolution body), NGOs (both foreign and local), and formal religious institutions all being placed consistently in the top ten institutions according to different measures.

- h) In urban areas *primary schools*, the *kebele* administration, *health, water and electricity supply, the police, idir, banks and telecommunications* emerged as the top nine institutions valued by urban citizens. Interestingly, municipalities receive relatively few mentions, when they are mentioned they are given low rankings. This could be interpreted as being indicative of the success of devolution of powers to the *kebele* level, bringing democratic accountability closer to urban citizens.

2.4.2 People's Views on Poverty and Services: Consolidated Outcomes of the 2005 Regional Consultations

As noted in the introduction and Chapter IV, an intensive consultative process was conducted during the preparation of the PASDEP, lasting about a year (described in Box 1). The consultations highlighted a number of issues that are explicitly addressed in the strategy. For example, regional and national consultations all raised the question of tailoring the strategy to different agro-economic zones of the country, and of special programs for pastoralists.

In the area of *agriculture and rural development*, the consultations mentioned the following: lack of veterinary services, significant post-harvest grain losses, the need to strengthen cooperatives, and the need for better access to inputs such as seed and fertilizer, and for expanded irrigation. In addition, suggestions were made for more outreach extension services that were tailored to farmers needs and learned from their experience, and a wide range of issues were raised with respect to soil and land conservation.

With respect to *private sector and industrial development*, participants raised the need for expanding domestic markets, and improving competitiveness of exportable products in the international markets (especially with respect to transport costs and connections); and increased backward and forward linkages between industries (for example in handicrafts and small and micro enterprises, and between agricultural and industry, with a special emphasis from many participants on the importance of agro-processing.

In *education*, the most common concerns were related to quality, including reducing overcrowding, increasing the supply and skills of teachers, and supply of textbooks. A second set of issues revolved around the participation of girls, and the need to overcome cultural barriers and attitudes. A third related to the need for informal education, and special programs for adults and the illiterate. Finally, concerns were raised about the quality of TVET.

With respect to *health* the main concerns were the need to address issues of adequate supply and staffing of health services, including to improve drug supply, and to retain health personnel. The second set of comments related to strengthening the outreach health services, the HEWP, and to make preventative health policies more effective. Additional issues raised included the desirability of better coordination between the public and private and NGO services; the importance of equipping newly-constructed facilities; and concerns that the focus on HIV/AIDS was diverting resources from other health concerns such as malaria and TB.

Much attention was paid to the need for adequate clean *water supplies*, and for improved sanitation, especially to increase the availability and use of latrines. The other main issue was the need for organizing greater community participation in the management and operation of rural water supplies once they are constructed. In terms of *road development*, issues raised regarding roads, beyond the efforts to expand the network included the importance of maintaining the existing network, the need for better road safety, and the importance of developing the local contractor base. Regarding *power*, participants raised the importance of expansion of power supply to meet the needs of the rural transformation, and of the proposed rural electrification program.

In terms of *employment generation*, the participants of the consultation suggested to give major emphasis to creating conducive environment and regulatory framework to attract private sector investment as well as for further development of Micro and Small Enterprises (MSEs). It has also been indicated to strengthen MSE development through holistic, integrated and participatory approach that is supplemented by capacity building of intermediary institutions, availing micro-finance fund facilities, as well as through boosting the efficiency, profitability and competitiveness of MSEs. The need to strengthen labor market/employment interventions to support MSEs has also been put forward by the participants. Moreover, advisory services as well as infrastructure support have been suggested to be provided to remove constraints such as licensing procedures and tax related problems.

With regard to *improving service delivery*, the need to properly implement public sector capacity building programs at all levels to further improve the service delivery system and achieve the intended results has been indicated by the participants of the consultation. Hence, the momentum which the Government has started its effort towards enhancing the efficiency of the civil service to deliver basic services should continue with increased vigor. Furthermore, business and investment climates has been suggested to be private sector friendly through internalizing the existing laws and regulations since one of the hindrances to the private sector development is the bureaucratic bottleneck, which consumes much time and energy.

2.4.3 People's Views on Poverty and Services: Findings of the Citizen's Report Card (CRC)⁵

The CRC is a simple but powerful tool to provide public agencies with systematic feedback from the users of public services. CRC's elicit feedback through sample surveys on aspects of service quality that users know best, and enable public agencies to identify strengths and weaknesses of their work.

The Poverty Action Network of Ethiopia (PANE) conducted a citizen report card survey in 2004/05 to investigate the level of public services under the SDPRP in four sectors: health, education, water and sanitation, and agriculture; 3228 households were surveyed in Tigray,

⁵ Full details of these findings can be found in 'Pro-poor Services in Ethiopia - A Pilot CRC', PANE, September, 2005.

Oromiya, SNNPR and Dire Dawa. The findings generally reinforce the messages emerging from the WMSs, and provide some interesting insights for the providers of those services.

Some of the major findings are as follows:

Drinking water

- Three-quarters of rural respondents depend on non-potable water sources for drinking and domestic purposes;
- Scarcity has been reported by around half of rural respondents;
- Natural sources need to be improved as they provide for large numbers of people during times of scarcity. River pollution was reported as a concern by 70% of those using rivers;
- People feel levels of water supply have improved over the last two years but lack of access to protected water sources remains a key concern for the majority of Ethiopians; and,
- There is wide regional disparity in the provision of water sources.

Implications for the PASDEP: The efforts to increase water supply in the PASDEP are very much needed. This area should be given a high priority in the event of limited funding. The policy should be targeted in those regions with the lowest supply of water.

Health and Sanitation

- In rural Ethiopia, malaria was reported as the most common illness;
- Access to medical treatment is a major issue for rural communities. This was most acute in Tigray where 45.5% of patients had to travel more than 10 km to reach a medical facility;
- The cost of getting treatment was considered high in government facilities and the cost of medicines varied widely between the regions;
- Very few respondents reported getting contraception advice from government facilities; and,
- Less than a third of people in rural areas reported using a toilet, with custom being the major reason.

Implications for the PASDEP: The focus in the PASDEP on malaria is necessary, as well as the aim to achieve universal primary health care coverage. Delivery of contraceptive services needs to be greatly intensified, and the cost of medical treatment and drugs needs to be reviewed. The efforts to increase the use of latrines through health extension packages are very much needed.

Education

- Most children's schools are within 3 km of their residences. However in Tigray a third of children travel more than 5 km to access school;
- There is an acute shortage of drinking water in schools, with less than a third of pupils in rural areas being able to access it;
- The cost of education varies widely across the regions. Standards and norms need to be established;
- Community involvement in schools is high but more through informal than formal means; and,
- Parents said they were highly satisfied with the behavior of teachers but less so with standard of buildings.

Implications for the PASDEP: Attention should be given to school construction and facilities. Involvement of the communities in school should be recognized. Minimum standards of schooling should be established and the costs across different regions reviewed.

Agriculture

- Government agencies are the main source of information on agriculture for communities. Most support is received by farmers is on crop production;
- Support provided for marketing agricultural products and for providing inputs like seeds was quite weak;
- Most farmers reported that extension agents were available but often they were not accessible. Only 56% of farmers found extension services adequate;
- Despite the fact that people felt extension services had improved, satisfaction was low with less than a quarter of respondents being completely satisfied.
- Only 26% of farmers accessed credit;
- Most farmers used direct marketing, with only 37.5% getting a fair price; and,
- More than 50% of farmers reported the loss of cattle or crops.

Implications for the PASDEP: The marketing and extension sections of the agriculture policy are vital to ensure farmers can access increased knowledge and gain a fair price for their goods. Reviews should be made of the extension services to ensure they are accessible for farmers and respond adequately to needs. Monitoring systems should be developed to ensure the quality of extension services. Insurance schemes may also help farmers mitigate against losses.

2.5 Trends in Growth and Poverty: Poverty Reduction Prospects During the Period of the PASDEP

Based on a relatively strong economic growth, and especially the recovery of food production, it could be expected that there has been significant improvement in the poverty situation of many households since the 1999/00 HICE Survey, especially in those localities most affected by the drought in 2002/03.

The outcomes of the analysis based on the 2004/05 HICES as outlined above have confirmed the potential decline in the head count ratio from its level in 1999/00(44%). According to the HICES 2004/05, poverty head count at national level has declined from 44% in 1999/00 to 38% in 2004/05. Although poverty is still a rural phenomenon, poverty incidence as measured by the poverty head count index has shown a significant decline, by 12% during the period (from 45% in 1999/00 to 39% in 2004/05) while urban poverty has shown a marginal decline from 37% in 1999/00 to 35% in 2004/05. The encouraging trends (Table 2.6) in the outcomes of the non-income dimension of poverty as indicated by increased access in primary education, the significant decline in stunting and wasting (improved nutritional trends), increase in literacy rates complements the outcomes in income poverty as described above.

If such a trend in poverty reduction continues over the PASDEP period, the national poverty head count index will further decline to 29% and the national food poverty head count index to 28%. However, the country now being on a fast growth trend, it is expected that income/consumption poverty will further decline during the PASDEP period faster than that of the SDPRP period. Therefore, the projected poverty head count index for 2009/10 will be less than or equal to 29%. If the inflation rate present is maintained with in single digits food poverty head count index is projected to decline to less than or equal to 28%.

This outcome has also been supplemented by trends in relevant macroeconomic indicators such as per capita GDP and per capita private consumption expenditure. Real Per capita GDP has been increasing at 2.8% on average over the period⁶. At the same it is worth examining the trend in per capita Private Final Consumption Expenditure (PFCE), which is a more proximate proxy indicator of the possible decline in income/consumption poverty since 2000. Per capita PFCE on average showed an annual increase of over 3 percent during the SDPRP period⁷.

Attempts have also been made to document the outcomes of independent research works on trends in income poverty. Independent small-scale studies/surveys, such as those conducted by the Economics Department of the Addis Ababa University, have also been consulted. The Rural Household Survey conducted during almost the same period by the Economics Department of the Addis Ababa University has shown that rural poverty has declined significantly while trends in income poverty in urban areas sent mixed signals, a decline in some and stagnation in others with increases in income inequality in urban areas.

⁶ Inflation averaged a little less than 10 percent while nominal GDP per capita at current market price averaged over 12 percent

⁷ Inflation averages a little less than 10 percent while the nominal increase in per capita PFCE averaged over 13% over the period.

CHAPTER III

Taking Stock of Challenges in Accelerating Growth and Poverty Eradication

As discussed in the previous chapters, the Government has embarked on an aggressive program to bring about accelerated and sustained development including a big push on education to strengthen human resource capacity; to expand the infrastructure as rapidly as possible using the existing resources and available external support; and fulfilling the necessary conditions for the economy to benefit from globalization realizing the opportunities and minimizing risks associated with it. In addition, the Government has undertaken institutional reforms and strengthened decentralized administration and enhanced democracy and empowerment. At the same time, the Government has made the necessary efforts to pursue its development programs in the context of commercialization of smallholder agriculture to underpin rapid and sustained growth and poverty eradication.

Following the implementation of SDPRP, the Government has to carry forward the development agenda on the foundation laid down to continue to pursue on a faster track to bring accelerated and sustained development to achieve the MDGs by 2015. Notwithstanding the progress made in the various sectors of the economy in the past three years under SDPRP, results achieved cannot be considered to have fully met the basic needs of socio-economic services of the people. Because of the country's deep-rooted poverty and the complexity of economic and social problems, concerted and sustained efforts are necessary to deepen the gains so far achieved and fundamentally transform the Ethiopian economy. The challenge, therefore, is one of accelerating development in a sustainable manner, which is still at the core of the country's agenda in fighting poverty. Some of the key challenges are outlined below:

a) Achieving Accelerated and Sustained Growth

Ethiopia's successes in addressing the many dimensions of poverty primarily depends on accelerated and sustained growth. During SDPRP period, overall growth averaged more than 6% despite growth decline in 2002/03. A particular feature of economic growth in Ethiopia is its variability. This emanates from the economy's high dependence on rain-fed low productivity subsistence agriculture. This low productivity is aggravated by land degradation and low technology input. This together with low level of water resources utilization and management have been a major source of vulnerability and volatility at the economy wide and households level, particularly rural households. The key challenges, therefore, is to ensure rapid and sustained growth in land and labor productivity- thus setting a strong foundation for sustaining growth. The rapidly growing Ethiopian population is an added challenge.

To realize the sustainability of agricultural growth, requires action to accelerate industrial and exports development. The expansion and diversification of Ethiopia's export remains a key challenge. Its resolution is urgent in order to relieve the foreign exchange constraint on urgent actions to accelerate and sustain growth. The Government has already prioritized potential

industrial areas in its quest for accelerating sustainable development and poverty reduction. To increase the effectiveness of ADLI, however, more needs to be done to favor linkages across the economy, and the ability of the private sector to generate an appropriate supply response.

In recent years, private sector's economic contribution has seen a big increase in services, trade and industry, and construction sectors and some real success stories in the new businesses such as the flower industry. This is supported by improved investment climate in terms of the provision of macroeconomic stability, institutional and legal environment, and improved taxation system. Significant progress was made under SDPRP due to BPR in reducing the bureaucratic bottlenecks in government institutions. However, the challenge is that Ethiopia's private sector remains weakly developed to fully utilize the opportunities created and serve as engine of growth- thus requiring enhanced implementation of current government programs to build the capacity of the private sector.

A related challenge is the issue of urban growth to complement rural growth- thus contributing to rapid overall economic growth and poverty eradication. Positive developments have been witnessed by way of addressing the pressing urban development problems in a number of urban areas, particularly in Addis Ababa City Administration during the past two years or so. Major developments include, among others, decentralization of power and authority to municipal towns and city administrations, construction of low-cost housing, construction of new roads and road maintenance, employment generation through small and medium enterprise development.

However, more needs to be done to overcome challenges such as building the capacity of urban centers and urban unemployment. In addition, given the depth of existing urban development problems compounded by rural-urban migration, there is a need to strengthen rural-urban linkages in order to maximize growth and its impact on poverty reduction, and to take full advantage of the synergies.

b) Tackling Capacity Building Agenda

The Government has internalized and implemented the on-going capacity building program to enhance the efficiency of the civil service by introducing sets of reforms and enacting fiscal and administrative decentralization that improve public resources use, accountability and efficient delivery of basic services that are vital for the socio-economic transformation of the country.

The main challenge in this regard involves continuing the on-going efforts aimed at building adequate administrative capacity at the decentralized level (particularly *woreda and kebele* levels). The capacity building of *woredas* and *kebeles* is still a work in progress, which has serious implications for accelerated implementation of scaled up development programs and service delivery. Administrative and technical posts created to handle devolved responsibilities have not been fully staffed. Most *woredas* also have poor infrastructure access- roads, power and telecommunication. This underscores the significance of accelerating the implementation of road, power and telecommunication sector programs.

Capacity building programs- such as the Public Sector Capacity Building Program (PSCAP) is also key to enhancing *woredas* capacity and improve program implementation.

c) Further Expanding Infrastructure Investment

As discussed earlier, Ethiopia has registered significant gains in infrastructure- road, power, and telecommunication expansion.

Despite the progresses achieved, the country's infrastructure still remain a major challenge. The combination of low connectivity through roads, telecommunication, railways, lack of water infrastructure, and limited urban infrastructure and energy has created a situation where it is hard for competitive supply chains to emerge for non-traditional high-value activities, and 'crowd in' private investment. This in turn affects the realization of rapid and sustained growth, through it combating deep-rooted poverty. The scale of these needs call for a big push in infrastructure investment.

d) Accelerated Human Development

The Government recognizes the importance of the development of healthy, productive and trained human resource for generating broad-based sustained development. In education, major investment has been made to increase access to educational opportunities, particularly in rural areas. This can be seen from the acceleration in school enrolment rates at all levels.

Despite the progress achieved in this sector, there remains a challenge in overcoming education quality problems, in large regional disparities in access particularly between rural and urban areas, in balancing the increase in number of teachers with the number of students, in overcoming high construction costs, in decreasing dropout and repetition rates as well as in minimizing number of students per classroom.

With regard to health, there has been meaningful progress with steady increases in service coverage, immunization and declines in infant and child mortality. Notwithstanding this gains, the overall health situation of the people still leaves much to be desired.

The challenges ahead in the health sector are high population growth, low educational and income levels especially among women, lack of access to clean water and sanitation facilities, nutritional disorders and insufficient access to health services. Training and retaining trained health workers, lack of adequate management skills, and shortage of drugs also add to the factor. Malaria and HIV/AIDS remains of particular concern with serious social and economic consequences.

e) Continued Efforts to Address Gender Disparity

Ethiopia has moved decisively to create conducive environment for women's effective participation, contribution to and benefits from the economic, social, and political processes of the country. Given the multidimensional problems faced by women, there are still differences on a historical and social roots of the number of socio-economic indicators

between men and women- all of which demand continued comprehensive actions. For Ethiopia to be successful in accelerating growth, human development and eradicate poverty, removing gender disparity and ensuring gender equality and women empowerment is key.

f) Financing Development

The scale and pace of development needs of Ethiopia is huge, correspondingly the financing needs is also great. In order to mobilize domestic resources to finance the huge demand for accelerating growth and poverty eradication, the Government has embarked on comprehensive tax policy and administration reforms. As a result, tax revenue has shown steady growth. As discussed earlier, the Government had created improved business environment that helped to increase private savings and investment. Further, the devolution process has also helped to create conducive environment for social mobilization to complement government resources for expanding economic and social services. In spite of this, the available domestic resource has not matched the increasing level of financing requirements, given the low level of per capita income, and export earnings. This has necessitated for supplemental external resource flows.

Ethiopia has been mobilizing external resources from bilateral and multilateral sources to complement domestic efforts to accelerate growth and poverty eradication. Ethiopia has also benefited from global initiatives of debt cancellation. Given the scale of the needs for rapid growth, human development, infrastructure and capacity building, Ethiopia will continue to make concerted efforts to effectively mobilize available external resource opportunities.

The greatest challenge, however, is the unpredictability of external assistance in terms of timing, level and form of delivery. Accordingly, there is a need for further dialogue/discussion with development partners in the context of scaling up, improved predictability of external finance, harmonization, promoting trade and investment, enhancing capacity to trade as well as to assist on the part of our development partners on improvement in Foreign Direct Investment (FDI) flows.

Finally it is important to note that the People's View on Poverty and Services: Consolidated Outcomes of the 2005 Regional and Federal Consultations and the Findings of PPA and the CRC, reinforce the positive gains in the provisions of economic and social services during SDPRP period. But the results also show the need for expanding access and effectively manage services required by the people. All indicate the urgent need to addressing the issues and challenges just outlined during the PASDEP period.

In this regard, significant and meaningful progress is critical for accelerating growth and poverty reduction and ensuring achievements of the MDGs by 2015. To this end, in the case of Ethiopia, business as usual does not work. Doing business differently and scaling up is the call of the day.

CHAPTER IV

The Objectives of the Five-Year Development Plan

4.1 The Basis and Rationale of the Development Plan

The development policies and strategies pursued during SDPRP are the basis for the five-year development plan (2005/06-2009/10). In the coming 20 to 30 years, Ethiopia's vision is to reach the level of middle-income countries where democracy and good governance are maintained through people's participation and where good will and social justice are secured. This Plan is the first 5-year phase to attain the goals and targets set in the MDGs at a minimum. In order to realize the objectives and ensure that the country's vision and dream come true, a coordinated and concerted effort at national level is critical in addition to the need to aspire beyond what is required by the MDGs.

The country's vision specifically on the economic sector has set the following goals:

- To build an economy which has a modern and productive agricultural sector with enhanced technology and an industrial sector that plays a leading role in the economy;
- To sustain economic development and secure social justice; and,
- Increase per capita income of citizens so that it reaches at the level of those in middle-income countries.

4.2 Objectives of the Development Plan

The main objectives of the Five-Year Development Plan is to lay out the directions for accelerated, sustained, and people-centered economic development as well as to pave the groundwork for the attainment of the MDGs by 2015.

Box 4.1: Preparing the PASDEP – An Extensive Consultative Process

An unprecedented national process was undertaken in the preparation of Ethiopia's Five Year Development Plan- the PASDEP. Lasting over a full year, this has culminated in the formulation of the Ahmaric version of the Plan that was debated in Parliament for a full two weeks, of which this current document is the English-language version. The timeline below shows the scope/breadth of these consultations:

June-July, 2005: Nationwide consultations across all regional states and city administrations to review the experience under SDPRP, and identify people's priorities for the PASDEP.

July-August, 2005: Consultative sessions conducted and written input obtained from civil society organizations, the business community (private sector), and donor partners on issues and priorities that should be reflected in the PASDEP.

July-September, 2005: Overall strategic directions debated and agreed within the Government; government ministries prepare sector strategies/feedback.

December, 2005: First draft of strategy circulated nationally for review, discussions, and suggestions/feedback.

January, 2006: Strategy reviewed by the full Cabinet chaired by H.E. the Prime Minister, and endorsed with directions for strengthening:

- Review by Regional government Presidents, elected officials, and Bureau heads to agree on ownership and feasibility of the strategies and targets;
- Strategy reviewed in detail by all line Ministries, and revised to ensure consistency and ownership;
- Extensive written comments and suggestions received from civil society organizations and development partners;

February, 2006: Further consultative sessions held with the PANE, an umbrella group formed by civil society organizations specifically to participate /interact with the Government in the PASDEP/PRSP process, with the Christian Relief and Development Association (CRDA) (the umbrella group of NGOs operating in Ethiopia); the Chambers of Commerce (both Addis Ababa and Ethiopian Chamber of Commerce), and the Development Assistance Group (DAG) of aid donors, to review and discuss their reactions to the draft.

March-April, 2006: The draft Plan/Strategy document re-drafted to take account of comments and feedback.

May, 2006: Ahmaric version of strategy debated for two full weeks by Parliament.

May-August, 2006: The draft Plan/Strategy document revised and finalized on the basis of comments and reactions. English-language version revised to be consistent with Amharic version discussed by Parliament.

September, 2006: Final PASDEP prepared.

CHAPTER V

Pillar Strategies of the Five-Year Development Plan (PASDEP)

During the PASDEP period, Ethiopia will build on the development strategies pursued under SDPRP (expanding education, strengthening health service provision, fighting HIV/AIDS, Food Security Program, capacity-building as well as decentralization). It will also continue to pursue on the ADLI strategy, but with important enhancements to capture the private initiative of farmers and support the shifts to diversification and commercialization of agriculture. But there is now a consensus that growth is of the essence, and an accelerated growth strategy is at the core of the PASDEP.

Ethiopia's strategy for the next five years therefore consists of the following **eight pillars**:

- Building all-inclusive implementation capacity;
- A massive push to accelerate growth;
- Creating the balance between economic development and population growth;
- Unleashing the potentials of Ethiopia's women;
- Strengthening the infrastructure backbone of the country;
- Strengthening human resource development;
- Managing risk and volatility; and,
- Creating employment opportunities.

1) Building All-inclusive Implementation Capacity

Implementation capacity is a key instrument for development. In addition to the prevailing structural and institutional problems, the economy is faced with implementation capacity challenges. In line with the development strategies, the Government has designed programs, policies, and strategies to strengthen and sustain the country's implementation capacity, which is a key to build on the initiated democratization process. To this end, major contributing factors include strengthening democratic institutions, implementing civil service reform and justice system reform programs, *woreda* level capacity building, information and communication technology development as well as supporting the construction sector.

2) A Massive Push to Accelerate Growth

In order to eradicate the daunting poverty challenges faced by the country and to improve people's livelihood, it is imperative to have an accelerated and sustained economic growth. Accordingly, the growth acceleration initiative should possess two main thrusts:

- ✓ Commercialization of agriculture; and,
- ✓ Accelerating private sector development

a) Accelerating Market Based Agricultural Development

The agricultural strategy will revolve around a major effort to support the intensification of marketable farm products -both for domestic and export markets, and by both small and large farmers. Elements of the strategy include the shift to higher-valued crops, promoting niche high-value export crops, a focus on selected high-potential areas, facilitating the commercialization of agriculture, supporting the development of large-scale commercial agriculture where it is feasible, and better integrating farmers with markets -both locally and globally. The majority of this response will have to come from the private sector, which includes millions of small farmers. But given the early stages of transition to market agriculture, a range of public investments and services is needed to help jump-start the process. The instruments to achieve this under PASDEP include:

- Constructing farm-to-market roads;
- Development of agricultural credit markets,
- Specialized extension services for differentiated agricultural zones and types of commercial agriculture;
- The development of national business plans and tailored packages for specialized export crops (such as spices, cut flowers, fruits and vegetables);
- Supporting small-scale irrigation and area irrigation through multi-purpose dams;
- Measures to improve land tenure security, and to make land available where feasible for large-scale commercial farming;
- Reforms to improve the availability of fertilizer and seeds; and,
- Better-functioning agricultural markets for both inputs and outputs, and institutions, including improved value chains, information flows, quality and standards support, and cooperatives that strengthen the position of farmers in the market.

The Government has a difficult balancing act to manage, since improvement of pro-poor subsistence farming still needs to take place in parallel with this shift to commercialization of agriculture. For several million households, the main welfare improvement in the medium-term will still come from achieving higher yields of basic food grains. This will be pursued through a combination of intensified extension support at the *kebele* level, establishment of a network of demonstration centers, increased low-level veterinary services, support for small-scale irrigation and better use of ground water, complemented by PSN and off-farm income-generating initiatives supported under the Food Security Program. Both of these agricultural approaches need to be pursued in conjunction with measures to manage the natural resource base and protect the environment.

b) Accelerating Private Sector Development

Recognizing the contribution of the private sector to the overall economic growth and poverty reduction, the Government will pursue every avenue available to accelerate the growth and development of the sector. The four main elements of the strategy include:

(i) Strengthening the institutional framework to enable private initiative, including:

- Continued simplification of business processes and licensing requirements;
- Strengthening of the regulatory framework and establishment of a level playing field with regard to property ownership through judicial strengthening, implementation of free competition policy, and enforcement of contracts;
- Financial sector reform, to increase the availability of capital and working finance;
- Progressive withdrawal of state entities from areas that can be efficiently provided by the private sector, through the continued privatization program and increased competition;
- Continued reforms to establish land tenure security for investment and trade purposes;
- Intensification of infrastructure development;
- Upgrading the skills of the workforce through expanded education and technical and vocation programs; and,
- Maintaining macroeconomic stability, a stable exchange rate, and low-inflation.

The Government, recognizing the private sector as a development partner, will proactively provide support to the private sector whenever it is necessary. In addition, recognizing that the private sector is still in its formative stage in the country, the Government will serve as a facilitator and gap filler to overcome initial barriers. Hence, the consultation process with the business community will be strengthened to identify and overcome major constraints through facilitating development finance, and the availability of land and related services.

ii) Exploit niche markets

In this regard, it is important to take advantage of underdeveloped opportunities including: promoting the expansion of tourism, livestock, horticulture and floriculture, and mining. In particular, the Government will take the necessary measures to adequately exploit and benefit from the tourism sector within the prevailing framework in line with its strategies for growth and accelerated development to eradicate poverty.

iii) A major push to increase exports

By the end of the plan period (2009/10), export earnings from goods and services is expected/targeted to reach 15 to 20% of GDP.

While the supply response needs to come from the private sector, the Government can assist by engaging in private-public dialogue to help identify external constraints, and negotiate to mitigate them. Among the initiatives, improving the reliability of transport and telecommunication links and there by reducing cost, policy reforms, and provision of support to manufacturing export enterprises are the most notable ones.

c) Pursuing a Geographically Differentiated Strategy

Adoption of a single-handed development strategy may not bring the best results as Ethiopia is characterized by differentiated ecological zones, varying landscape, and agricultural production practices. Accordingly, the strategy will take into consideration the varying geographical conditions in identifying development zones and to undertake appropriate activities suitable to the zones/areas.

In this regard, it is imperative to develop the identified Growth Zones: Tana Beles, Western and Eastern Hararghe centering Dire Dawa, Rift Valley, South Western, and the resettlement areas by widening opportunities through commercialization and diversification.

Overall, Ethiopia consists of at least three very different types of economic and agro-climatic zones: the traditionally settled semi-arid highlands, potentially productive semi-tropical valley areas, and the hot semi-arid lowlands, each of which require different responses to maximize their potential. There will be a particular focus on rural growth poles, and high potential tapping areas such as productive river valleys and areas with potential for multi-cropping for integration into markets. The instruments to achieve this are articulated in detail in the sector chapters, but they include: focused infrastructure investments, especially in roads, telecommunications and connection to the electricity grid; intensified efforts to strengthen the flow of development finance, and administrative capacity in selected areas; and control of tsetse fly and malaria in low-lying areas.

d) Further Pursuing the Urban Agenda and Strengthening Rural-Urban Linkages

It is recognized that there will inevitably be a growing trend towards greater urbanization, and that a significant part of the modern sector growth will take place in urban areas. Without sacrificing the historical emphasis on the rural population, under PASDEP the Government will intensify efforts in the urban sector. The strategy will also try to readdress the imbalance in private investment and activities in Addis Ababa relative to other areas, by supporting the regions in developing infrastructure and attracting investment. Furthermore, in order to utilize the benefits of agricultural and rural development and to bring about accelerated growth, urban cities need to operate in an efficient and organized manner.

Accordingly, to accelerate urban development, the Government will strengthen the following strategies:

- Strengthening municipal governments and administrative institutions;
- Investing in essential urban infrastructure to accelerate development;
- Developing financing mechanisms that limit the demands on the public budget;
- Continue to improve the regulatory and licensing environment for urban land, which is needed both to reduce barriers to business, and to increase security and favor asset building by households; and,
- Increasing the availability of urban industrial land.

In addition, rural-urban linkages need to be strengthened, to maximize the poverty impacts, and to take full advantage of the synergies. This involves integrating markets, opening up the flows of labor, and access to income-earning opportunities between towns and surrounding

rural areas. The specific instruments to achieve this include: improved rural access roads, building up of small rural towns, improved telecommunication access, the continued spread of general education and technical-vocational training, development of small-scale credit markets, and the major program of rural electrification. Growth of agriculture will contribute as well, as increased demand from farmers' fuels growth in small towns and trading centers, and through supply-chain linkages.

e) Special Effort for Pastoral Areas

Some 10 million semi-nomadic people depend primarily on grazing herds of cattle, camels, and goats, and are concentrated mostly in the dry lowland areas of Afar and Somali. Human development indicators and poverty among this group are uniformly worse than elsewhere in the country, and they have proven difficult to reach with traditional services.

Under PASDEP a major effort will be made to reach them with tailored programs. In education, a network of informal community-based schools and teaching arrangements is being developed, and mobile outreach health services will be strengthened. Special programs will provide improved veterinary services, and strengthen livestock breeds, marketing, and early-warning systems. Water points will be constructed adjacent to range areas for dry season utilization, and infrastructure (such as roads, communications, and small-scale irrigation) will be built up, both to improve current conditions, and to facilitate the slow transition for those who want to shift towards settlement over time.

3) Addressing the Population Challenge

A major effort will be made to implement the existing national population policy and strategy and to make available services for family planning. Under PASDEP, greater emphasis will be given to girls' education and to fight against harmful traditional practices, as they are essential for the population policy to meet its objectives.

The 2005 DHS for example showed that the average ideal family size has declined over the past five years by nearly a child among women (all women and currently married women) and by more than a child among men (all men and currently married men), and remarkable declines in fertility have already taken place in urban areas -especially in Addis Ababa, where fertility has fallen rapidly to a remarkable 1.4 births per woman, as opposed to a national average of 5.4. There has been notable progress, with the CPR reportedly rising to 15% in 2004/05 from 8.1% in 1999/00. A major step forward is the deployment of female health extension workers, who can interact with women at the village level. This is critically important, since experience worldwide has shown that male workers, and those of a higher social status, are often not effective at supporting family planning interventions with female clients. Institutionalization of the program at the grassroots level will also greatly assist the provision of the service and addressing the unmet demand for family planning. Programs will also be implemented to improve the security and volume of contraceptive supplies, to intensify information and communication efforts, enhancing girl's education, and to provide political leadership on population issues.

4) Unleashing the Potential of Ethiopia's Women

The objectives of PASDEP can be achieved only when the multidimensional problems faced by women are adequately addressed and resolved. Hence, the Government will scale up its efforts to implement the gender policy, which is necessary to release the untapped potential of Ethiopian women, in a holistic and integrated manner. Major objectives and interventions include:

- Major efforts to get more girls into, and completing, school with a target of gender parity by the end of the PASDEP period;
- Major efforts to improve women's health, through an extensive program of female outreach health workers who will get down to the village and family level, and a nationwide Making Pregnancy Safe program to ensure healthier pregnancies and the safer delivery of babies;
- Liberating girls' and women's time from the unproductive hours spent fetching water, by making water supply available within 0.5 km for 85% of the population by 2010;
- Improving rural telephony, which has been shown to open up small entrepreneurship opportunities for women elsewhere;
- Intensifying the responsiveness to women clients of a wide range of programs designed to boost productivity including agricultural extension, micro-credit, natural resource management, and small business promotion; and,
- Continuing legislative and institutional reforms to protect the rights of and open opportunities for women, including implementing the National Plan of Action for Women.

5) Strengthening the Infrastructure Backbone of the Country

The strategy is inclusive of provision of infrastructure in terms of expansion of the road network, clean water supply, irrigation, urban development, electricity supply, and telecommunication services.

Roads network: The program will involve a major expansion of the road network, with a target of constructing almost 20,000 km of new roads by 2010 (90% of them in rural areas) and improved maintenance so that 84% of the network is in good condition. The emphasis will be on facilitating growth -both in agriculture and the modern sector- by opening up corridors and port linkages, tourism areas, as well as linking emerging regions better to the rest of the country.

Clean water supply: With regard to rural drinking water supply, construction of 2,133 deep wells, 14,908 shallow wells, and 101,355 hand-dug wells, 404 ponds, 556 cisterns and 14 surface water sources and 11,065 spring development will be undertaken. Moreover, 48,510 schemes rehabilitation works will be carried out.

During the program period, in terms of urban development, study and design of 738 town water systems, construction works for 514 towns and rehabilitation works for 228 towns will be carried out, to provide essential water services that are needed for private sector

development as well as to improve living conditions for the urban poor. Accordingly, water supply will be expanded to reach 85% of the population compared to an estimated 42% by the end of the SDPRP period, 2004/05.

With respect to irrigation development, within the program period, pre-design studies will be carried out for 17,988 hectares, full-fledged design studies will be undertaken on 464,051 hectares, and construction works will be completed for 430,061 hectares.

Power supply: Under PASDEP, power supply will be increased by three-fold with the construction of 5 major new dams, and addition of 668 MW of generating capacity. A major rural electrification program is being undertaken so that by the end of the program period it is expected that 50% of the population will have potential access to electricity, compared to about 16% by the end of 2004/05.

Telecommunications: A major telecommunication initiative is under way in order to provide opportunities and attractive partnership services to investors in this area. By the end of PASDEP period, the initiative is expected to result in increase in fixed telephone subscribers from the current level of 620,000 to over 3.23 million, in cellular mobile from about 410,000 to over 6.76 million, and in Internet connections from 17,000 to 0.193 million.

A continuing program of institutional reform and strengthening, to improve the quality and efficiency of infrastructure services, and to place them on a sustainable footing, will accompany these investments. Given the high private returns to beneficiaries of most infrastructure -who tend to be among the less-poor members of society -wherever feasible the financing of infrastructure will be arranged in a way that is based on commercial principles, using entities that are increasingly self-financing (such as Ethiopian Electric Power Corporation (EPPCo) and ETC), and based on users paying for the costs of services.

6) Strengthening Human Resource Development

Improving human development outcomes is a central pillar of the PASDEP strategy. The Government has been taking measures to improve the human resource development as a healthy, productive, and trained human resource is essential for the implementation of government policies, strategies and programs. The main ingredients of this pillar are higher levels of education and literacy, better primary health care, better and closer access to safe water and sanitation facilities, halting the spread of HIV/AIDS and other infectious diseases, better food security and nutrition, and housing conditions.

In order to pursue on the progressive achievements in this regard, the Government will increase its efforts in human resource development through improving access and quality of education in the next five years. In terms of improving access to education, efforts will be made to gradually address issues that limit children in particular female students from attending classes. As for improving quality of education, measures will be taken to address the shortcomings through increasing the number of teachers and schools. To build on the ability/capacity of teachers, the Government, in collaboration with the public, will take an extra mile to intensify Teachers' Training Centers (TTCs).

The Government will also strengthen the expansion of higher education, as it is a key to economic growth and development. The cost-sharing policy will be strengthened to ensure the continuity and reliability of the required financial resources. Furthermore, the established TVET program will be part of government's capacity building program. The program will be undertaken in coordination with institutions engaged in creating small-scale employment opportunities that contribute to reducing the unemployment rate.

With regard to the health sector, the focus under the PASDEP will continue towards primary health care and preventive services and improving the effectiveness of services in relation to availability of drugs. Furthermore, the Government will strengthen its measures to improve the number, skills, distribution and management of health workers, new systems of health care financing, including drug revolving funds as well as continue to mobilize additional foreign aid to overcome the bottlenecks in the sector.

7) Managing Risk and Volatility

The Government will take the necessary measures to address volatility issues that need to be managed at three levels. First, at the most immediate human level, to reduce the repeated swings of households in and out of poverty, mostly as a result of crop failure and major illness. Secondly, at the economic management level, to reduce the impact of shocks on public finances and government programs resulting from factors such as large variations in aid inflows, in revenues, or the current oil price shock, which disrupt fiscal management, and result in the stop-go delivery of essential programs. Finally, at the most aggregate national level, reduction of the volatility of GDP growth, so that sustained improvements are made in per capita income and poverty reduction.

8) Creating Employment Opportunities

In Ethiopia underemployment and unemployment -especially in urban areas, and among the youth- are serious challenges. Creating employment and income-earning opportunities in the modern sector, the informal sector, and on farms is thus central to the effort to accelerate growth. The working age population (labor force) stood at 54% of the population in 2004/05, and is growing by about 1.2 million people per year. It is important to note the fact that pressure on the labor market comes directly from the supply of labor, which in turn is induced by the growth rate of the population. The challenges faced by the Government in fulfilling the demand for increased employment are thus two-fold: managing the dynamics of population growth, and expansion of labor-intensive productive activities.

This is why PASDEP's strategic emphasis is on the growth of the rural, industrial, export, construction, and other labor-intensive sectors. Particular focus will be given to the promotion of MSE development as well.

The MSE growth and integration with TVET system development will be instrumental in increasing the employment of youth. The returns to education are high, and improving education levels both through general education and through specialized TVET skills

training, is an important part of this effort, as is providing the capital for the unemployed to work within the form of investments in infrastructure, a well-functioning financial system, and specialized programs to promote opportunities for self-employment. The recent experience of the Addis Ababa City Administration in small and medium scale enterprise development linked with TVET and a low cost housing program is going to be scaled up and rolled out to other towns in the country.

Achievements by the end 2004/05 and the PASDEP targets envisioned to be reached by the end of 2009/10 are depicted in Table 5.1 below.

Table 5.1: Selected PASDEP Targets

Sector/Indicator	Base Line (Achievements by end of 2004/05)	PASDEP Target (2009/10)
The Macro Economy		
GDP growth rate (%)	10.6	Period average of 7.3% per annum
Gross domestic investment as % of DGP	20.5	26.1
Gross domestic saving as % of GDP	3.7	13.1
Export of goods & services as % of GDP	15.8	19.7
Imports of goods & services as % of GDP	34.3	31.2
Domestic revenue as % of GDP	15.8	18.7
Tax revenue as % of GDP	12.5	17.0
Total expenditure as % of GDP	25.2	27.0
Total poverty-oriented expenditure as % of GDP	14.2	22.3
Capital expenditure as % of GDP	11.8	15.8
Poverty/Welfare		
Total poverty head count (%)	39	29
Food poverty head count (%)	38	28
Agriculture		
Growth of agricultural value added (%)	13.4	Period average of 6.2% per annum
% Share of agriculture & allied activities in GDP	46.2	43.9
Major crops production (million tons)	16.7	38.2 (level by end of 2009/10)
Meat production (1,000 metric tons)	566	837 (level by end of 2009/10)
Meat export (1,000 metric tons)	8	62 (level by end of 2009/10)
Industry		
Growth rate of industry value added (%)	8.1	Period average 11.5% per annum
Share of industry in GDP (%)	13.6	16.5
Export		
Revenue generated from agricultural exports (in US\$ millions)	546	1,515
Revenue generated from industrial export (leather and leather products) (in US\$ millions)	63.73	500
Revenue generated from mining (in million Birr)	20	44.7
Human Development		
Gross primary enrollment (1 to 8) (%)	79.8	109.7
Primary school completion rate (%)	34	63
Ratio of girls to boys (in primary school)	0.84	0.97
Pupil: text book ratio	2:1	1:1
Pupil: class room ratio	1:69	1:50
Grade 1 drop out rate	22.4	6.3
Primary health services coverage (%)	70	100
Infant mortality rate	77/1,000	45/1,000
Maternal mortality rate	871/100,000	600/100,000
CPR (%)	15	80
Pregnant women with access to treatment to prevent mother to child transmission of HIV/AIDS (%)	0.56	0.52

DPT 3 vaccination coverage (%)	61	80
Share of births attended by skilled health personnel (%)	9	32
Population with access to potable water in rural areas (within 1.5 km) (%)	35	80
Infrastructure Development		
Average Time taken to all-weather road (hours)	5.0	3.2
Road density (km/1,000 km ²)	33.2	54.1
Roads in acceptable condition (%)	64	84
Population with access to electricity (%)	16	50
Mobile users density (per 100)	0.56	8.1
Telephone density/fixed lines (per 100)	0.85	3.87
Population with access to telecommunication center/services (within 5 km radius) (%)	6	100
Number of <i>kebeles</i> with telephone access	3,000	15,000
Fixed telephone subscribers (in millions)	0.62	3.23
Mobile Telephone subscribers (in millions)	0.411	6.761
Internet service subscribers	17,375	193,100
Irrigated land out of the total irrigable land (%)	5	8
Mining		
Increase regional geological mapping coverage (%)	38	53
Increase hydro geological mapping coverage (%)	27	42
Increase engineering geology coverage (%)	7	15
Increase geophysics/gravity coverage (%)	65	80
Urban Development		
Reduce urban unemployment rate in towns with 50,000+ population (%)	40	20
Provision of housing and basic services (%)	30	65
Number of new houses built		100,000 (yearly average)
Provision of land and infrastructure		3,800 hectares/annum
Reduction of slum areas (%)	70	35
Number of micro and small enterprises		12,000 per annum

CHAPTER VI

The PASDEP Macroeconomic Framework and Growth Scenarios

6.1 Macroeconomic Policies, Strategies, Programs, and Targets

6.1.1 Real Sector and Prices

During the SDPRP period (2002/03-2004/05), real GDP grew on average by about 6.4% per annum. In the coming five years, it is projected to build sustainability in economic growth and achieve 7% real GDP growth at a minimum on average. The base case macroeconomic forecast for the medium term is based on the continuation and scaling-up of the policies and measures adopted to date, including creation of a conducive environment for private investment and foreign resource inflows, strengthening the infrastructure sector and human resource development, improved public sector service delivery, prevalence of a sound financial sector, capacity building in both public and private sectors, and the priority attached to the agricultural sector and rural development. The final results of these measures are to be reflected in a higher GDP growth, increased government revenue and improved foreign reserves.

The objectives and strategies of the medium term program emphasize the need to create a favorable climate for stimulating investment and productivity, and adopting appropriate policies designed to promote equitable growth and development. Apart from achieving significant real GDP growth, this entails maintaining macroeconomic stability, monetary expansion consistent with targets of single digit inflation as well as a stable exchange rate and sustainable external sector development.

Addressing implementation bottlenecks at the local level, strengthening efforts to transform agriculture, the ongoing program of export diversification and industrial expansion, the ongoing infrastructure expansion and lagged effects of investments in human development, promoting productive employment through strengthening small and medium enterprise development, and scaling up domestic resource mobilization and external finance inflows combined are expected to drive higher output growth and hence real GDP.

a) GDP by Industrial Origin

With regard to the agricultural sector, it is assumed that the supply of agricultural inputs such as fertilizers, improved seeds and pesticides will increase substantially during the period of the PASDEP. The coverage of extension programs will continue to expand, training of farmers will be strengthened, and the area under irrigation will be substantially expanded. As a result, overall agriculture value-added is expected to grow at an annual average real rate of about 6.2% during the PASDEP period (2005/06-2009/10). Progress will depend critically upon diffusion of technology, successful export promotion policies, and the availability of affordable credit through the active promotion of MFIs.

Continued efforts to improve the provision of infrastructure, including the increased supply of power and telecommunications, the improvement of major roads, and the continued adoption of encouraging investment environment are expected to promote private sector participation in the industrial and service sectors. As a result, the value added of the industrial sector is projected to increase at an annual average rate of 11.5% over the period of the PASDEP. The value added of the service sector is projected to increase at an annual average rate of 7% over the same period.

b) GDP from the Demand Side

It is envisaged that the enabling environment being created for private sector development will continue, and as indicated in Table 6.2 below, gross domestic investment is expected to average at 24.2% of GDP during the PASDEP period reaching 26.1% of GDP by the end of the plan period (2009/10), from about 21.6% of GDP by the end of 2004/05. This positive development is to be promoted by a favorable investment climate and acceleration of privatization as well as the improved land lease management, and a series of investments in physical infrastructure and human development that will contribute to higher private investment growth.

Consumption expenditure is projected to increase more slowly than overall growth, with a greater share of GDP going into savings and investment as more surpluses are generated. As a consequence, consumption is projected to decline as a share of GDP, from 96.3% in 2004/05 to 86.9% by the end of the PASDEP period. The decline in consumption is indicative of an increase in domestic saving which is projected to increase from nearly 3.7% of GDP in 2004/05 to about 13.1% of GDP by the end of 2009/10.

Exports of goods and non-factor services are projected to increase to about 20% of GDP by the end of 2009/10 from 15.8% of GDP in 2004/05, while imports of goods and non-factor services are projected to stabilize at about 31% of GDP by the end of 2009/10 from about 34% of GDP by the end of 2004/05. The resource gap is projected to narrow down and reach 11.5% of GDP during the same period from nearly 17.9% of GDP by the end of 2004/05.

c) Government Revenue and Expenditure

On the revenue side, tax revenue is projected to increase from about 12.5% GDP in 2004/05 to about 17% of GDP by the end of 2009/10. The Government will continue to pursue prudent expenditure policy by continuing to restrain public expenditure on defense and non-priority sectors and protect poverty-targeted outlays and capital expenditure, while containing total spending within affordable limits. Total outlays are programmed to reach about 27% of GDP by the end of the PASDEP. The share of capital expenditure will increase from 11.5 of GDP in 2004/05 to 16% of GDP by the end of 2009/10, due to the frontloaded investment program in physical and human infrastructure as indicated in the MDGs investment plan. Financing of such expenditures will benefit from Highly Indebted Poor Countries (HIPC) debt relief assistance. Poverty targeted recurrent and capital expenditures will be significantly increased. The details of PASDEP program spending, external financing and how it fits within the medium-term fiscal framework are presented in Chapter VIII: Financing the Plan.

6.1.2 External Sector

The five-year PASDEP strategy will focus on promotion and diversification of exports, reducing the reliance on coffee receipts, and sustaining the rates of growth of exports that have been witnessed during the last two years. The efforts include encouraging traditional exports and enhancing the contribution of non-traditional exports. However, despite its volatility, coffee will probably continue to be the country's major export commodity during the medium term. In the meantime, so as to increase the country's foreign exchange base, export diversification will be sought in the areas of horticultural products, meat, semi-processed and finished leather articles, and in the introduction of new items, such as textiles and garments and as much as possible exploit the African Growth and Opportunity Act (AGOA) and Everything But Arms (EBA) initiatives, as discussed in the relevant sections of Chapter VII.

It is believed that the five-year macroeconomic strategy will create a favorable and credible environment for the inflow of foreign direct investment. The revised investment law, which reduced the minimum capital requirement and eliminated minimum capital requirements for foreign investors exporting at least 75% of their proceeds, and reduced the minimum threshold for FDI to US\$100,000 for wholly foreign-owned businesses and create additional incentives to foreign direct investment. Besides, the Government will undertake numerous measures to improve the enabling environment for private investment, and to directly promote export industries, as described in the section on Development of Industry and Trade, specifically exports in Chapter VII.

6.1.3 Financial Sector

During the PASDEP period, banks will be encouraged to build on the progresses achieved through the financial sector reform pursued under SDPRP such as modernizing and raising efficiency by adopting improved banking practices and building their capacities. Emphasis will be given to supporting the private sector through improved financial services, and encouraging investors and those involved in distributive services. The requirements of provisioning will be more rigorously applied as per the recent revised directive including the tightening of supervision in respect of the level of NPLs. It is envisaged that the average level of non-performing loans for the CBE in particular and the banking system in general will be reduced to less than 10% in the next five years.

Private banks are expected to play an increasingly important role, with a policy target of raising their share of both deposits and loans to at least 33% by 2009/10 compared to 26% by the beginning of the plan period (2004/05). The state owned banks would also continue to implement their reform programs designed to enhance their efficiency and effectiveness. Moreover, credit rating will be introduced for banks, as well as for individual borrowers in addition to strengthening information exchange mechanisms between borrowers, which is coordinated by the National Bank of Ethiopia (NBE) so as to render up to date information made accessible to all banks.

The Government will continue to take the necessary measures towards strengthening competitive and healthy financial institutions. Emphasis will also be given to building NBE's supervision and regulatory capacity.

MFIs are playing a significant role in expanding financial services to low-income groups, entrepreneurs and traders, who are not usually reached by banks. Improvements have been witnessed not only in terms of number but also in operational efficiency as well as coverage during the past three years. The number of clients served by MFIs reached about 1 million by the close of 2004/05, compared to 461,326 in 2001. Loans outstanding increased from 308 million Birr in 2001 to 1.4 billion Birr by the end of June 2005. Savings mobilized reached 501 million Birr by the end of June 2005 from 243 million Birr in 2001. As noted earlier, improving the coverage of MFIs, especially in the less-developed regions, is one of the objectives under the PASDEP. However, while availability of credit is important, it must be recognized that in some cases credit is not the binding constraint, and that the problem may be on the capacity to utilize funds or demand side. For these reasons, linking markets with demand (through roads, and information flows), and increasing skills and education levels, are equally important in many areas.

Apart from commercial banks, the strategy will also address the task of developing MFIs. In particular, the banking sector envisages fostering the role of MFIs in intermediating financial assets in the rural areas. To this end, NBE encourages commercial banks to on-lend to micro-finance institutions. One way to encourage commercial banks is by strengthening the regulatory framework and supervision capacity of the Micro Finance Supervision Department of the NBE. It is also recognized that there is a geographical imbalance in the coverage of MFIs -with very few credit services available in the less-developed regions, and to pastoralist communities; and that this will have to be addressed in the next stage of the strategy.

Under the PASDEP, the strategy in the financial sector will continue to be geared towards ensuring a favorable environment for the banking sector through such measures as reducing information asymmetry, strengthening the existing credit information sharing system, encouraging the habit of loan repayments and creating internal dynamism. Banks will also be encouraged to improve and modernize their activities through adoption of international best practices. These include use of management contracts, consultancy services, adhering to NBE's directives (such as provisioning and reserve requirement directives, etc.), reducing NPLs to international standards, implementing financial restructuring plans and building their capacities through training and experience sharing.

Regarding future plans on the development of capital markets, the pre-conditions that are critical for the establishment of capital market are not yet ready. The accounting and auditing practices are rudimentary in Ethiopia, and the minimum requirements to establish effective supervisory and regulatory institutions are not yet well in place. It is therefore, believed that the establishment of a corporate bond market which involves less risk both to participants of the market and the stability of the business environment should come first. The latter will help create some of the necessary conditions for the establishment of a capital market. To this end, the NBE has conducted a study on the feasibility of establishing a corporate bond market in Ethiopia and follow up studies are planned to be undertaken in 2006/07.

6.1.4 Monetary Policy

An important objective of the Government's macroeconomic policy is to attain relative stability of prices to help protect the poor from the ills of inflation and encourage saving and long-term investment. In this regard, the average general inflation rate during SDPRP period was relatively low and stable. Inflation, which stood at about 6.8% in 2004/05, is projected to average at about 8% per annum over the next five years during the PASDEP period.

The Government's monetary policy will continue to be geared towards maintaining price and exchange rate stability, with major objectives of containing inflation within single digits. The monetary program assumes a stable but slowly declining velocity. Broad money is therefore assumed to grow at a slightly higher rate than nominal GDP. The policy also gives emphasis to maintaining an adequate level of foreign reserves.

Credit to the private sector, which showed substantial growth in 2004/05, is expected to maintain the momentum as domestic demand expands and government's infrastructure development and capacity-building program continues.

In an effort to make indirect monetary policy instruments effective and use the idle money in the hands of commercial banks, the NBE's strategy in the next five years is to encourage banks to reduce excess reserves, while making sure that the objectives of price and exchange rate stability are maintained. To this end, a study aimed at addressing excess reserves was already completed in December 2005. The NBE will continue to strengthen the inter-bank foreign exchange market and further improve the financing of the inter-bank money market by removing those obstacles that have so far made the market inactive.

In regard to strengthening the NBE, the Bank is currently implementing a five-year strategic plan. The major goals of the Bank include effectively carrying out tasks on institutional transformation, improving service delivery by the Bank, improving the soundness of the financial system, providing timely research and policy advice to the Government, creating an efficient payment system, and improving currency management. The NBE identified lack of skilled manpower and institutional dynamism as critical problems in achieving its goals. To this end, the Bank is undergoing a comprehensive restructuring plan including revision of the salary scale in 2004/05, and business process re-engineering has been implemented to enhance the Bank's supervisory, regulatory and research capacity, and improve service delivery. In 2004/05, two key divisions of the Bank, namely Government Accounts, and the Cash and Foreign Exchange Inspection Divisions, completed the study and started implementation. The studies on all other departments of the Bank are nearing completion and implementation of the recommendations will continue during 2005/06-2006/07.

6.1.5 Fiscal Policy

Fiscal policy in the medium term is aimed at maintaining the deficit at a sustainable level while at the same time increasing spending in key sectors such as agriculture and food security, water and sanitation, education, health and HIV/AIDS, road construction and development of the power sector (implementing the rural electrification program). The fiscal deficit (including grants but excluding special programs) is targeted to average 6.5% of GDP. In order to finance the high level of poverty targeted and capacity-building outlays mainly related to integrated rural development, the Government would draw modest domestic finance close to 4% of GDP. As noted earlier, the public expenditure and financing framework for the PASDEP period is discussed in much more detail in Chapter VIII: Financing the Plan.

On the revenue side, the Government is determined to lay the foundation for strong revenue performance during the program period. The envisaged commercialization of the agricultural sector and export-led industrial expansion are expected to be the major sources of additional revenue generation during the period of the PASDEP and beyond. It is also expected that revenue performance will benefit fully from the tax reform measures implemented since 2001, including improved tax administration. Promoting compliance and equipping the tax collection institutions with adequate enforcement power will further boost revenue mobilization both at federal and regional levels. Vigorous efforts will be made to further improve tax collection, and to combat fiscal fraud. In the coming five years, the Government will accelerate the pace of the tax reform program. In particular, it will: (i) further strengthen revenue collection institutions through reorganizing, adequate staffing and training, particularly for revenue collection, accounting and audit functions; (ii) implement the tax identification number (TIN) system throughout the country; (iii) improve the implementation of presumptive tax system; (iv) develop and implement an audit program to cover all taxes; (v) expand and improve the administration of VAT. In addition, a study is underway to assess the revenue potential in the regions and city administrations.

In regard to inter-governmental fiscal transfer, the fiscal transfer to regional governments will continue to be effected through a credible and transparent budget subsidy formula, and this will take into account criteria for equity and efficiency. The formula will be improved over time by refining the data required for measuring expenditure needs and fiscal capacity of each regional government. The predictability of the transfers will be ensured by providing medium-term estimate and incorporating reliable budget figures from donor support.

With the view to deepening the decentralization process, *woredas* will be fully empowered to take up expenditure and revenue assignments within their competence. *Woredas* will be entitled to untied block grants from the respective regional governments, and each *woreda* will have the flexibility to decide on the utilization of the transfer for local needs and priorities.

To this end, most of the regional governments have developed appropriate formula and applied them to establish the amount of block grants to *woredas*. The rest of the regions will do the same during the PASDEP period. Besides this, the major portion of own revenue

sources of *woredas* will be retained for their use. The system of own revenue utilization together with effective in-built criteria in the formula will provide incentives to enhance the revenue-raising capacity of sub-national bodies. Revenue sharing arrangements may also be established for specific revenue items having revenue base differences among different tiers of regional governments.

Fiscal transfers will be linked to *woreda* administrations' accountability. The on-going reform under the expenditure management and control system will continue to be rolled out to the *woreda* level. Auditing, inspection and supervision mechanisms will be strengthened, and *woredas*', *kebeles*', and communities' capacities will be further enhanced during the period of the PASDEP.

6.2 Alternative Macroeconomic Scenarios

Two macroeconomic scenarios were prepared for the PASDEP: a base-case of 7% annual real GDP growth, a high- case based on 10% real GDP growth per annum over the period of the PASDEP.

The PASDEP is formulated based on the base-case scenario, which is presented and discussed in detail both in this Chapter and Chapter VII: Financing the Plan. However, it is still important to understand the basic features and implications of the two alternative scenarios.

The base-case scenario is constructed based on various resource requirement studies and long-term source of growth alternatives and is drawn from best experiences of eastern and southern Asian countries that have registered accelerated growth. The two scenarios and the assumptions and rationales underlying them are discussed in turn below.

a) Base-Case Scenario

The assumptions underlying the **base-case** scenarios are:

- An annual average real GDP growth rate of 7% per annum. This is equivalent to 'MDGs–Consistent' scenario;
- The country would be able to relatively overcome a series of internal and external shocks assuming the effort for accelerated development will bring successful results through the appropriate policies and strategies designed by the Government such as the development of small scale irrigation, water harvesting, export diversification coupled with increasing productivity by creating demand for agricultural output;
- Domestic revenue is projected to increase at an annual average rate of about 20% per annum while tax revenue is projected to increase at an annual average rate of about 22% per annum. The financing gap will be relatively scaled down and its impact on the macroeconomic stability will be minimized;
- The inflation rate will not exceed an annual average rate of about 8% as it is largely influenced by the performance of the agricultural sector mainly crop production; and,

- A narrowing domestic and external balance owing to an increase in domestic revenue, relatively constant prices of imports, and increased export earnings;

Furthermore, for the envisaged GDP growth of 7% at 1999/00 constant basic prices, value-added in agriculture, industrial output, and services are expected to grow on average by 6.2%, 12%, and 7.1%, respectively.

During the PASDEP period, it is also expected that there will be socio-economic transformation. Accordingly, the anticipated socio-economic structural change in the base-case scenario relative to the current level (2004/05) is presented in Table 6.1 while the required rate of investment, domestic savings, and external sector is presented in Table 6.2 below.

Table 6.1: Projected Trends in the Structure of GDP by Industrial Origin
(% Share in GDP)
Base-Case Scenario

Sectors	Current Level (End of 2004/05)	PASDEP Target (2009/10)
Agriculture and related sectors	46	43.9
Industry	14	16.5
Services	40	39.6
GDP	100.0	100.0

Table 6.2: Projected Trends in Structure of GDP from the Demand Side
(% Share in GDP)
Base-Case Scenario

Item	Current Level (End of 2004/05)	PASDEP Target (2009/10)
Total consumption expenditure	96.3	86.9
Investment (Gross Domestic Capital Formation, GDCF)	21.6	26.1
Exports of goods and non-factor services	15.8	19.7
Imports of goods and non-factor services	33.7	31.2
Domestic saving	3.7	13.1
Resources gap	(17.9)	(11.5)

b) High-Case Scenario

The **high-case** represents what is possible if a shift were to happen in the growth path and there are no significant shocks (domestic or foreign). In the view of the Government, this scenario is realistically achievable as growth has averaged over 10% for the past two years (2003/04 and 2004/05) and a similar rate of growth is expected in fiscal year 2005/06. There is a momentum to the economy with the return of confidence and re-establishment of a vibrant private sector. The recent reforms have improved the business climate and facilitated growth; and Ethiopia is now benefiting from the lagged effect of significant investments made in education, infrastructure, transport, and communications over the past 10 years.

The factors underlying the **high-case** and some of the implications include the following:

- An annual average real GDP growth rate of 10% per annum. This is based on the optimistic assumption of a shift in the growth path of the Ethiopian economy. This is equivalent to the 'MDGs Plus' scenario;
- The major sources of growth is still the agriculture sector, as it is expected to be insulated from drought shocks through enhanced utilization of the water resource potential of the country (through development of small scale irrigation, water harvesting, and on-farm diversification) coupled with strengthened linkages between agriculture and industry (agro-industry) thereby creating demand for agricultural output;
- A significant increase in domestic revenue generation given the assumed improved overall economic environment. Domestic revenue is projected to increase at an annual average rate of 26.3% per annum while tax revenue is projected to increase at an annual average rate of 29.6% per annum;
- Single digit inflation averaging below 10% per annum; and,
- A significant decline in external assistance in the form of food aid (as the existing chronically food insecure population and the vulnerable are being addressed through the on-going food security and productive safety net programs);

In addition, for the envisaged GDP growth rate of 10% at 1999/00 constant basic prices, value-added in agriculture, industrial output, and services are expected to grow on average by 6.4%, 18%, and 10.3%, respectively.

During the program period, it is also expected that there will be an enhanced socio-economic transformation relative to the base-case scenario. Accordingly, the anticipated socio-economic structural change in the high-case scenario relative to the current rate is presented in Table 6.3 below.

Table 6.3: Projected Trends in the Structure of GDP by Industrial Origin
(% Share in GDP)
High-Case Scenario

Sectors	Current Level (End of 2004/05)	PASDEP Target (2009/10)
Agriculture and related sectors	46	39
Industry	14	20
Services	40	41
GDP	100.0	100.0

CHAPTER VII

Sectoral Policies, Strategies, and Programs of the PASDEP

7.1 Agriculture and Rural Development

7.1.1 Overall

Agriculture plays a significant and decisive role in the social and economic development of the country. However, owing to natural and man-made causes the country has not properly benefited from its abundant natural resources conducive to agricultural development, and consequently failed to register the desired economic development that would enable its people pull out of the quagmires of poverty.

The major impediments to agricultural development are the predominance of subsistence agriculture and lack and /or absence of more business/market-oriented agriculture; adverse climatic changes; failure to use agricultural land according to appropriate land use management plan and resource base; limitation in information base; lack of provision of supply and dissemination of appropriate technology; failure to integrate relevant activities; and lack of adequate implementation capacity.

To resolve the above mentioned problems and bring about tenable changes and sustainable development in agriculture calls for the development of appropriate human resources, provision of an expanded and improved supply of agricultural inputs; adaptation/application of appropriate technologies; and improvement and expansion of economic infrastructures. Securing accelerated and sustained development of the agricultural sector through the transformation of the subsistence agriculture to market- oriented development will also guarantee the sector's contribution to the attainment of the millennium development goals.

The major focus of activities to be undertaken in the coming five years to secure sustained development in agriculture include: adequate capacity building through the implementation of relevant training programs; introduction of high yielding technologies supported by agricultural research and extension services; increasing the quantity and quality of marketable agricultural products with demands in both domestic and international markets as well as providing support for the establishment of appropriate marketing systems; expansion of small and medium scale irrigation and water conservation schemes; and ensuring prudent utilization of natural resources.

7.1.2 Fundamentals of Ethiopia's Agricultural Development Strategy

a) Adequately Strengthen Human Resource Capacity and its Effective Utilization

The requisite action to build and strengthen the country's human resource capability for development is to augment the qualification and skills of the persons who will spear head the development process in the country. This calls for adaptation of appropriate strategies to train the necessary human resources as well as strengthen the capability of existing ones on

the one hand, and ensuring the provision and proper supply, distribution and application of agricultural technologies in a sustainable manner on the other. It is also necessary to provide for increased preparedness on the part of the work force to make utmost effort in undertaking their duties and responsibilities.

b) Ensuring Prudent Allocation and use of Existing Land

The appropriate allocation and use of existing land for agriculture has an important role to play in bringing about increased and sustained growth in agriculture. To this end, the guiding principle and direction of agricultural policies and strategies will be to allocate agricultural land to development activities where the comparative advantage is the highest.

c) Adaptation of Development Path Compatible with Different Agro-ecological Zones

In order to achieve increased and sustained development in agricultural production, it is necessary to understand and recognize the challenges and opportunities of the different agro-ecological zones of the different parts of the country and to adopt the most appropriate plans and strategies tailored to addressing the specific conditions of each zone. Based on the respective comparative advantage, each zone will contribute to its utmost in terms of production and consequently bring about increased and sustained development of the country's agricultural sector.

d) Specialization, Diversification and Commercialization of Agricultural Production

The basis for this direction of agricultural strategy is the country's agro-ecological zones, which provide for specialization and diversification of production. In view of this, farmers and pastoralists will be encouraged to focus on agricultural activities where they have the best comparative advantage. To this end, the Government will provide the required support and technology package, which will be adopted and implemented as appropriate to each specific zone to benefit the population from specialization and diversification. The strategy will provide for the acceleration of agricultural development as well as the development of agro-industry, and there by contribute to the overall growth of the economy. The requisite training and technology package will be made available to both farmers and pastoralists to ensure the development of the required knowledge and skill specific to the activities of the respective specialized zones.

Growth corridors are identified on the basis of the study conducted on agro-ecological zones and the specific environmental conditions of the country. The growth zones identified as Growth Corridors so far (identification of additional growth zones is still on-going) focus on crops that have comparative advantage are: Tana Beles zone; West and East Hararge zone with center at Dire Dawa; Rift Valley zone; South and South-West Wollega zone and Addis Ababa and surrounding zone and resettlement area zones. These agro ecological zones are identified to serve as Growth Centers in the long run. In each of the zones identified, activities are being undertaken in a coordinated and integrated manner.

Development of agricultural products for export will be identified and promoted and utmost efforts will be made to penetrate into international market by producing products that meet the standards of international trade. To this end, relevant activities will be undertaken to help improve the standard of agricultural products that are compatible to the standards of international market.

e) Integrating Development Activities with other Sectors

Agricultural development activities include crop production; livestock production; husbandry; marketing; environmental conservation; research extension; etc. And these activities need to be undertaken in an integrated manner. Agricultural development is closely related to social activities such as education and health and thus needs to be integrated and coordinated with such activities. Besides, agricultural development is interrelated with trade, finance and industrial sectors and thus the acceleration of agricultural development will have a significant impact on the development of these sectors. Therefore, it is essential to integrate and coordinate the activities of these sectors recognizing their interdependence and to effectively benefit from the opportunities created.

f) Establishment of Effective Agricultural Marketing System

To ensure accelerated and sustained development, it is essential to expand economic infrastructure. In this regard, to ensure the development of agriculture, the country needs to establish and strengthen commodity exchange center; to build the capacity of agricultural marketing institutions; establish agricultural marketing information system; establishing warehouse receipt and inventory system; strengthen quality control and standard system; expand and strengthen abattoirs and centers for keeping live animals; strengthening of cooperatives, small-scale credit associations and capacity development of private investors. Besides, further development and expansion of telecommunications; roads; electric power; and other economic infrastructures in the rural areas of the country are major contributing factors for the development of the agricultural sector and there by strengthen the linkage between agriculture and industry.

7.1.3 Agro-ecological Zones

The rural development strategy of the country divides the country into three main agro-ecological zones in terms of rainfall, land type, altitude, and other attributes, and tailors the responses to the conditions in each zone. Taking into consideration the various agro-ecological zones of the country, the main development intervention will focus on the following areas:

a) Regions with Adequate Rainfall

In these areas, the focus will be on exerting all possible efforts to efficiently utilize available rain-water to bring about the maximum possible rate of agricultural development, and promoting irrigation in areas where it is feasible. Since these areas currently play a decisive role in food crop production and expansion of investments, this will play a very important role in both accelerating growth and maintaining food security. For both objectives, the

emphasis will be on improving infrastructure and basic appropriate input and agricultural technology to increase productivity and facilitate market systems for increases in agricultural productivity through the promotion and marketing of agricultural products.

A major focus will be on enhancing crop production with a special emphasis on high value crops for export market, by maximizing yield through the efficient utilization of rainwater and through the use of irrigation. Natural resources conservation including soil, water, and agro-forestry development; establishing effective market system; strengthening of implementation capacity; and livestock development will also continue to be given due emphasis in these areas.

In the semi-nomadic areas where there is adequate rain, among the communities in Gambela and Benshangul Gumuz, the livelihood of the community is based on hoe culture agricultural production and bee raising. For these communities, modern methods of agricultural and bee raising technology will be introduced through agricultural extension services to be made available among the communities in their respective localities to enable them to improve their production and productivity as well as produce market-oriented products.

b) Moisture Stress Areas

The major agricultural development activity to be undertaken is aimed at increasing the income of the farmers and pastoralists through activities focused to enhance food security through measures to reduce the volatility of production (for example through irrigation where feasible), and increasing off-farm income opportunities, and, where appropriate, voluntary resettlement to more productive areas. The other major interventions in these areas include soil and water conservation, rehabilitation of natural resources, and livestock resource development with a special focus on small ruminants, small-scale irrigation and water harvesting, and wherever possible on the production of high value crops for marketing.

c) Pastoral Areas

Since the livelihood of the pastoralists rests on livestock breeding, special efforts will be made to enhance specialization in livestock production and marketing through the provision of water supply for the community and their livestock. The major interventions are thus centered on improving livestock quality, expansion of animal health services, water points, feed production, breed improvement and development of market infrastructure. There will be an emphasis on providing appropriate infrastructure and social services and tailoring research and extension programs more to the needs of dry-land agriculture and livestock development.

The provision of drinking water and grazing land and extension services for livestock production are one essential component of support that would be provided to the pastoral communities.

Technical support through extension services will be given to pastoralists to encourage them to practice agricultural activities side by side with their regular activities through the introduction of small-scale irrigation. Development of basic infrastructure and improvement

in social services will be provided for. Agricultural research and extension services addressing the special requirements of the pastoralists will be undertaken to resolve problems specific to pastoral areas.

The Government will introduce the required regulatory system and sets standards for quality of production. Besides, the Government will provide for the expansion of small-scale irrigation through water harvesting at household levels and strengthen the construction of multi-purpose dams to support irrigation. It is also considered to promote the development of medium-scale irrigation schemes on cost-recovery basis through community participation, which is expected to play a significant role in the development of irrigated agriculture.

In some cases, the Government will help farmers in the acquisition of external technology such as specialized seeds and genetic materials from outside the country to provide for increased productivity.

7.1.4 Crop Production and Productivity

The most important components of the five year development program in the area of crop production are estimates of the size of the land to be cultivated, volume of production to be achieved and productivity level that is expected to be attained. Crop production is estimated on the basis of the estimated production during the Meher (main production season) and the Belg seasons (small rain season), increase in productivity as well as harvests to be obtained from managed vertisol fields and irrigated crops. This will be achieved through increased crop productivity (intensification) and area expansion. Intensification is to be achieved through integrated use of agricultural inputs including improved seeds, fertilizer, effective pest control and better management practices.

The main agricultural products that will receive special focus and follow up in the coming five years include cereals, oil seeds, pulse, fiber crops, fruits, vegetable, coffee, tea and spices crops. These will be developed in regions with adequate rainfall and moisture stress areas and through the use of irrigation as deemed feasible. Each crop will be cultivated (as appropriate) in agro-ecological zones where their productivity is the highest in abundant rain and moisture stress areas of the farming and livestock raising environment.

In the moisture stress areas, water utilization at household level will be encouraged through traditional irrigation practices, helping farmers to build small and medium scale irrigation schemes and introducing water harvesting practices. Besides, in the moisture stress areas, the necessary measures will be taken to introduce the use of water pumps and other techniques of water harvesting techniques suited for use by the farmers and live stock herders.

With regard to the crop production program, 23 Development and Marketing Master Plan documents have been prepared (cereal crops- 3; pulse crops- 6; oil crops- 2; cotton - 1; fruit and vegetables-7; coffee, tea, spices-4). Within the planned implementation period, 8 Development and Marketing Master Plan documents will be prepared for cereals, pulses, fiber and oil crops, 2 for each field crop.

Besides, new technology packages will be prepared, existing package documents revised based on improved technologies and new research findings, and feedback from the field. The outcome of this effort will be disseminated to the regions to be applied as appropriate. This activity will be among the major activities that will be undertaken during the period of the five-year plan.

In general, in areas both with adequate rainfall and areas with moisture stress of agricultural and livestock activities, potential areas will be identified and designated for specialization and increased diversification agricultural production. Areas that have extensive development potential will be identified and provided with adequate infrastructure to encourage exploitation of this potential.

The ultimate goal of field crop production and productivity increases is twofold: to make the country food self-sufficient and ensure household food security for the rapidly growing population, as well as to improve the provision of quality products for the local agro-industry and for the export market. In view of this, market information will be strengthened and market information made available to farmers to enable them to produce agricultural products in line with market demand. Also efforts will be made to integrate the activities of the industries within the proximity of the farms.

Within the coming five years efforts will be made to establish a strong linkage with agricultural research system, in regard to information exchange. Faster and more effective ways of communication will be established for providing and receiving up-to-date data on agricultural technologies. Critical assessment of the performance of technological packages and provision of feedback will be enhanced as an input for further research.

According to the five year program, the total cultivated land under crop will increase from 12.28 in 2004/05 to 12.65 million hectares by the end of 2009/10 and total production will increase from 16.7 million tons in 2004/05 to 38 .21 tons by the end of the plan year. The crops include cereals, oil seeds, pulse, fiber crops, fruits, vegetable, coffee, tea and spices crops. Details are provided in Table 7.6 below.

Besides, varying measures will be taken to increase production of food crops through the application of new and improved production technologies and increased inputs, promotion of agricultural marketing, and through the use of irrigation to produce more than once during a production year. Furthermore, efforts will be made to increase the productivity of land by providing for improved productivity of acidic soil and study will be carried out to establish the status of soil nutrients to provide for the deficiencies.

During the program, due consideration will also be given to the production of high value/cash crops like fruit and vegetables, coffee, tea and spices which could play a significant role in improving the living standards of smallholder farmers and strengthening the foreign currency earning capacity of the country.

Regarding the fruit and vegetable sub-sector, after analyzing the world market situation and taking into consideration the country's comparative advantages, a number of fruit species,

including mango, avocado, banana, pineapple and apple and vegetables have been identified as prior entry areas to be focused on during the five year program.

Specific areas/corridors of specialization for commercialization of the production system for fruits and vegetables have also been categorized in clusters of areas that facilitate the promotion of post-harvest technologies, which are the major components to improve the supply chain performance and sustain product quality to be competitive in the world market. Accordingly, the development program will focus on the Eastern and Rift valley corridors, where fruits like mango and avocado and green beans will likely be dominant crops.

Also certain areas from the southern part of the country are selected for the commercialization of mango, avocado, pineapple and banana production.

Besides, the introduction and expansion of highland fruits such as apples will be encouraged in pocket areas of southern Ethiopia, where relatively better experience is currently prevailing.

In this regard, wide areas of the highlands in central part of the country will also be included in the program. It is expected that about 841, 100 quintals (Qt.) of fruit (mango, avocado, pineapple and apple) and 150,000 Qt. of green beans will be produced during the five years program, and the number of smallholders involved in fruit and vegetable production program is expected to reach about 379,750 by the end of the plan period. Together with the expansion program of new varieties and transfer of technologies, the productivity of matured fruit crops (8 years after planting) is expected to increase by 400% compared with the prevailing levels (50 Qt./hectare), and that of green beans by 100%. The size of area to be put under crop, total production of crops and productivity are depicted in tables 7.1 to 7.6 below.

Table 7.1: Annual Plans for Cultivated Area, Productivity and production of Cereal Crops

Year of Production	Area (000's Hectare)	Productivity (Qt./ Hectare)	Total Product (Metric Tons, MT)
2004/05	9053	14.35	12.99
2005/06	9022	20.03	18.07
2006/07	9035	22.91	20.70
2007/08	9039	25.85	23.73
2008/09	9153	31.57	28.25
2009/10	9256	34.84	32.25

Table 7.2: Annual Plan for Cultivated Area, Production and Productivity of Pulses Crops

Year of Production	Area (000's Hectare)	Productivity (Qt./ Hectare)	Total Product (MT)
2004/05	1,615	9.66	1.56
2005/06	1,702	9.96	1.69
2006/07	1,718	9.78	1.67
2007/08	1,721	12.92	2.22
2008/09	1,750	11.65	2.03
2009/10	1,689	12.61	2.13

Table 7.3: Annual Plans for cultivated Area, Production and Productivity of Oil Seeds Crops

Year of Production	Area (000's Hectare)	Productivity (Qt./ Hectare)	Total Product (MT)
2004/05	1223	4.17	0.51
2005/06	1272	6.69	0.85
2006/07	1271	6.61	0.84
2007/08	1270	7.56	0.96
2008/09	1274	7.85	1.00
2009/10	1244	7.88	0.98

Table 7.4: Annual Plans for Cultivated Area, Production and productivity of Fruits and Vegetables (Cultivated with Irrigation)

Year of Production	Area (000's Hectare)	Productivity (Qt./ Hectare)	Total Product (MT)
2004/05	367	42.23	1.55
2005/06	382	73.30	2.81
2006/07	413	72.40	2.98
2007/08	465	75.70	3.52
2008/09	372	66.94	2.49
2009/10	419	65.07	2.72

Table 7.5: Annual Plans for Cultivated Area, Production and Productivity of Cotton Crops

Year of Production	Area (000's Hectare)	Productivity (Qt./ Hectare)	Total Product (MT)
2004/05	23	21.05	0.05
2005/06	27	21.76	0.06
2006/07	28	22.88	0.07
2007/08	32	24.07	0.08
2008/09	39	24.24	0.10
2009/10	43	29.30	0.13

**Table 7.6: Summary of Land To Be Covered By Crops And Production Plan
(2004/05 – 2009/10)**

	Unit of Measure	2004/05 Baseline	2005/06	2006/07	2007/08	2008/09	2009/10
Cereals							
Area of production	000's hectare MT	9,053 12.99	9,022 18.07	9,035 22.91	9,039 25.85	9,153 31.57	9,256 32.25
Pulses							
Area of production	000's hectare MT	1,615 1.56	1,702 1.69	1,718 1.67	1,721 2.22	1,750 2.04	1,689 2.13
Oil Seeds							
Area of production	000's hectare MT	1,223 0.51	1,272 0.58	1,271 0.84	1,270 0.96	1,274 1.0	1,244 0.98
Fruits and Vegetables							
Area of production	000's hectare MT	367 1.55	382 2.81	413 2.98	465 3.52	372 2.49	419 2.72
Cotton Crops							
Area of production	000's hectare MT	23 0.05	27 0.06	28 0.07	32 0.08	39 0.10	43 0.13
Total							
Area of production	000's hectare MT	12,281 16.66	12,404 23.48	12,465 26.26	12,527 30.51	12,587 34.53	12,649 38.21

7.1.5 Coffee, Tea, and Spices

Coffee, tea and spices are important export products that have a huge potential to transform the agriculture sector from subsistence to a more market-oriented mode of production. Cognizant of their importance, priority has been given to significantly increasing both the volume and quality of production for these crops during the plan period.

With regard to coffee production, until 2004/05, the size of land under coffee production is estimated at 500,000 hectares and by the end of the plan period area under cultivation is planned to increase to 734,000 hectares. Coffee production capacity of the country, which is currently estimated at 301,000 tons, is targeted to increase to 419,000 tons by the end of 2009/10. In terms of supply, it is estimated to increase from 194,000 tons to 293,000 by the end of the plan period. Washed coffee supply is planned to increase from 36,000 tons in 2004/05 to 75,000 tons by the end of the plan period (2009/10), while dry coffee is planned to increase from 156,000 tons to 218,000 tons by the end of the plan period. Compared to the volume in 2004/05, production is planned to increase by 37% for coffee, by 17% for tea and 254% for spices (Details are shown in table 7.7).

Emphasis will be given to post-harvest activities such as processing to improve the quality of products. Accordingly, 39 wet, 10 dry coffee processing industries and one single line tea processing factory will be established during the five year program. This will increase the total number of industries for washed coffee, dry coffee and tea processing to 640 and 414 and 5, respectively.

Table 7.7: Plan for the Development and Production of Coffee, Tea and Spices

Sub Sector	Unit of Measurement	2004/05 (Baseline)	Production Year					Cumulative
			2005/06	2006/07	2007/08	2008/09	2009/10	
Coffee Plantation								
Plantation	Hectare	500,000	60,000	69,000	30,000	35,000	40,000	734,000
Seedlings preparation	In millions	121	120	207	90	105	120	642
Applying natural fertilizers	Ton	800,000	896,000	10,064,000	10,544,000	1,110,400	1,174,400	
Coffee and Tea production and Supply								
Total coffee production	Ton	301,344	305,000	313,344	332,246	386,948	419,610	
Supply to Central market	“	194,000	213,000	231,200	23,000	270,000	293,000	
Washed coffee supply	“	36,000	44,000	60,000	63,000	69,000	75,000	
Dry coffee supply	“	156,000	169,000	171,200	176,000	201,000	218,000	
Tea production	“	5,598	5,900	6,000	6,220	6,450	6,900	
Tea factory		4	4	4	4	5	-	
Spices Development								
Pepper								
Area	Hectare	-	11,623	13,366	15,638	18,766	23,082	
Production	Ton	-	9,298	16,038	20,329	30,026	36,931	
Ginger								
Area	Hectare	5,600	5,696	6,266	7,081	8,285	9,859	
Production	Ton	47,600	48,416	56,390	84,972	124,275	167,603	
Azemud								
Area	Hectare	3,420	4,300	4,945	5,687	6,540	7,521	
Production	Ton	1,710	2,150	3,461	4,265	4,905	5,641	
Development of Processing Industries								
Washed coffee preparation industry		600	1	9	10	10	10	640
Dry coffee preparation Industry		391	3	5	5	5	5	414
Tea Development								
Total land	Hectare	2,680	2,683	2,874	3,134	3,446	3,821	
Existing farms	“	2,680	2,680	90	2,990	3,090		
New investor	“	-	-	50	150	300	500	
New investor	“	-	-	50	150	300	500	

Table 7.8: Annual Targets for Agriculture Input Supply /Marketing

Area of Activities	Activities	Unit	2004/05 Base line	2005/06	2006/07	2007/08	2008/09	2009/10
Fertilizer supply	Chemical fertilizer	Ton	480,000	600,000	650,000	700,000	756,000	820,000
	• Dap	“	320,000	340,000	370,000	400,000	432,000	470,000
	• Urea	“	160,000	260,000	280,000	300,000	324,000	350,000
	Natural fertilizer	“	-	10,000	10,300	10,700	11,300	12,000
Improved seeds supply	Ethiopian Improved Seed Agency							
	• Own farm	Quintal		727,209	488,079	359,933	243,289	144,000
	• Farmers' plots	“		391,575	488,079	539,899	567,675	576,000
	Regions' farmers' plots	Quintal		131,622	34,683	494,908	664,990	900,000
	Private seed producers	Quintal		65,810	83,671	104,980	145,974	180,000
	Total	Quintal		1,316,216	1,394,512	1,499,720	1,621,928	1,800,000
Coffee spices tea	Coffee seeds	Quintal	400	400	690	300	350	400
	Spices	Quintal	-	240	277	322	21,080	24,952
	Tea plant pieces		500,000	1,900,000	2,800,000	4,900,000	5,500,000	-

To improve the soil fertility of food crops, over 8 million quintals of DAP and Urea are estimated to be required by the end of the plan period. Besides this, by the end of the planning period approximately 2 million farmers (each producing 2.5 tons) will prepare compost, which has a capacity to cover about 1 million hectares. In addition to this, to improve the fertility of soil through proper application of fertilizer and increase the productivity in the next five years, soil laboratories will be established in the regions to undertake soil calibration studies. The results obtained from the study will be replicated as deemed appropriate. To meet the fertilizer requirements of fruits and vegetables, it is planned to supply 53,658 DAP and urea.

Similarly 16,000 tons of inorganic fertilizer (DAP & Urea), and 6,406,000 tons of manure is required for the targeted production increases in coffee, tea and spice crops. Overall, major increases in fertilizer supply are expected to reach the levels of production foreseen during the plan period – both for food crops, and for fruits, vegetables, tea, coffee and spices. Overall, by the end of the plan period an estimated 8 million Quintals of chemical fertilizer and 12 thousand tons of compost will be required to meet the targeted production.

7.1.6 Pest Management

Currently the average crop loss due to pests during the pre-harvest and post harvest periods is estimated at 45% or even higher of which 30% is accounted for by pre harvest loses and 15% by post-harvest loses. By the end of the plan period, pre-harvest crop loss is planned to be reduced to 25% and post-harvest crop loss to 10%. This is equivalent to a 2% annual reduction of crop loss during the plan period.

Interventions during the plan period include the following:

a) Pre-Harvest Crop Loss Management

Capacity building through training of farmers on pest and plant protection measures , raising the professional skills of crop protection personnel at all levels, improving laboratory facilities and technical equipment for rendering effective services; development of pest monitoring and early warning systems through the establishment of field monitoring stations, strengthening pest trap sites, and developing field monitoring staff; establishment of an information network to track pest development at national and global levels and through communicating to appropriate federal and regional authorities for appropriate action; undertaking field survey and pest control operation to ensure readiness to act against any threatening pest situation, and through procurement and storage of pesticides and spraying equipment in advance, building appropriate capacity to ensure and promote integrated pest management.

During the period, steps will be taken to improve and maintain the existing eight airports and facilities. One additional airport will be constructed in Oromia, Teltele *woreda*. Spray equipment will be purchased and distributed (10,000 manual operated and 100 motorized). Besides, 20,000 sets of hand gloves; boots; face, eye and nose cover; 5,000 sifters, and 100 different types of instruments for measuring the chemical levels impacts would be purchased and distributed as appropriate. Also 350 tons of pest control chemicals will be purchased and distributed as needed.

b) Post-Harvest Loss Management

Appropriate training will be given to pest-control personnel and farmers. Methods for post-harvest loss management will be developed and disseminated through extension packages to promote improved storage structures and practices.

c) Phytosanitary Service

With regard to seed plant sanitation, control developers are faced with difficulties to meet the standards set by developed countries in the transfer or export of plants and plant products to developed countries. In order to benefit from exports of such commodities, countries are obliged to meet the standards set by the regulation of the recipient countries.

In view of this, the country is obliged to meet such requirements of laws, regulations, and quarantine standards of countries' that import the products. To provide appropriate sanitary

services and control system, over and above the existing five quarantine services (located in Metema, Moyale, Dire-Dawa, Nazreth and Addis Ababa) it is planned to establish additional six services that meet the standards set by international plant quarantine services. To meet the requirements of such services appropriate capacity building program will be undertaken including the training of the required technical human resources and setting up and equipping of laboratories. Appropriate sites will be identified and the centers will be established with adequate facilities to provide quarantine and inspection services for export of plants and plant products. Furthermore laws and regulations meeting international standards will be concluded and issued during the plan period.

Besides this, accredited laboratories will be established and provided for with appropriate expertise to study and analyze the impact of chemical deposits of the pest control material used. On reviewing the requirements of countries that import the products, efforts will be made to the harmonization of regulations for plant quarantine, pesticide registration and control and bio-pesticides with the standards, laws, and regulation set by the importing countries. Furthermore, during the period, appropriate steps will be taken to strengthen the systems for the implementation of the regulations of chemicals used for pest control.

7.1.7 Livestock Development and Animal Health Services

7.1.7.1 Livestock Development

In Ethiopia, by far the largest proportion of the crops produced utilize livestock inputs in terms of traction power. In rural Ethiopia, lack of plough oxen has direct impact on the size of land to be put under cultivation and is considered as a very strong indicator of welfare among rural households.

In areas where mixed farming (crops and livestock production), are jointly undertaken, farmers use livestock for coping with adverse situations during crises of crop failure by selling animal products. With regard to direct food supply and/or cash income generation, livestock will play an increasingly significant role in fulfilling the objectives set in the five-year plan, and consequently special focus will be made to promoting livestock development. In view of these benefits of livestock, and considering the direct contribution of livestock to food supply and production major interventions are envisaged to provide improved animal health services.

Small ruminant production (including sheep, goats and chicken) will receive special attention in areas characterized by high population, fragmented land holdings, land degradation and arid climate. Poultry production will be supported in all mixed-farming agriculture as well as in agro-pastoral areas. Owing to their ability to provide economic returns in a relatively short time, provide products like milk and eggs over a sustained period, and their relatively small space and initial capital requirement, small ruminants and poultry have a comparative advantage to contribute towards poverty alleviation of most small holder farmers.

During the plan period, total meat production is projected to increase by 48% (from 566,000 ton in 2005/06 to 837,000 ton in 2009/10) while the production of milk is projected to increase by 85%, from 1,831,000 to 3,391,000 tons during the same period.

Production is expected to increase for eggs from 20,000 tons to 36,000 tons, fish from 10,000 tons to 27,000 tons, honey production from 38,000 tons 98,600 tons and the number of hides and skins will increase from 21 million to 25 million. Also cocoon (silk) production is projected to increase from 0.7 tons to 20 tons. Productivity trends are depicted in tables 7.9 and 7.10 below.

In order to meet the production targets indicated above, the following activities will be carried out in the various sub-sectors:

a) Improvement of Animal Feed

Animal feed is currently one of the inputs that ranks top in determining livestock production. During the plan period, various strategies such as forage production and supply, expansion of improved pasture, development of animal feed, improvement of the quality of crop residue, bush clearing, and water development will be implemented to address the problem of feed availability and quality.

In this regard, the following activities will be undertaken during the plan period:

- With regard to forage feed production 1,096 tons of forage, 20 million of perennial forage plants, and 10 million pieces of forage plant cuts will be distributed;
- Improvement of natural pastures will be undertaken to expand the pasture coverage from the current level of 20,000 to 35,000 hectares to produce 182 tons of various types of forage;
- A total of 908 tons of seeds, 20 million forage plants, and a million cuts will be distributed;
- Crop residue and oil-cake supply will be improved; 100 deposes for the accumulation of molasses will be constructed at appropriate sites;
- 600,000 hectare of pasture land will be cleared from evasive bush trees and developed for grazing land;
- A system for maintaining domestic animals will be adopted based on type and number of livestock to be kept by each farming family and a study on natural grazing areas will be conducted. For areas largely dependent on livestock particularly for pastoral communities, forage development study and water development study will be undertaken.
- To ensure the availability of forage in times of crisis, 500 forage banks will be developed, each 2 hectares in size, with a capacity to feed a quarter of a million cattle for one month or 83,000 cattle for three months.

b) Honey Production

Honey production will be developed in connection with the expansion of irrigated areas integrated with fruits and agro-forestry development. Techniques for artificial production of bee queen will be imported and adopted. By introducing migratory beekeeping techniques, efforts will be made to produce honey on a continuous basis in areas where the potential exists.

c) Silk Production

The development of Silk production is one important economic activity that will contribute to earning additional income by families, and will be encouraged to be extensively developed. Appropriate mulberry tree has already been imported into the country to be used as fodder for silkworms. The technology has been introduced in Alage Technical College and mulberry tree plant is currently being multiplied and will be distributed extensively to farmers. In addition to this, silkworm variety with high productivity will be imported and multiplied and distributed to farmers. Appropriate technology for silk production, care for silk-worm, handling will be introduced to silk producers to improving the quality and quantity of silk products currently marketed as well as expand silk production from its current low level.

d) Fishery Development

In order to increase fish production in a sustained manner, the activities to be undertaken revolve around the introduction of appropriate technology that provide for proper care of existing lakes as well as to production of fish with out risking the natural balance of fish population. The currently observed unlimited exploitation of fish and progressive deterioration of the natural fish resources of the country calls for issuing and enforcing appropriate laws and regulation to curb the diminishing trend of the fishery resources and allow for its revival. Production and fishery development will be undertaken in water bodies where the fishery potential is not fully exploited. Fishery production will be expanded in areas that are rich in water resource availability as well as in dams and other water bodies constructed primarily for other purposes. It is estimated that out of the 27,000 tons of fish planned to be produced during the pan period; 1,000 ton will be produced from such water bodies.

e) Genetic Improvement

The production and productivity of meat and milk could be achieved mainly through improvement in the production, availability and quality of animal feed; and improvement of animal health services; and genetic intervention. Genetic improvement of large and small ruminants mainly focus on the improvement of indigenous species in their local breeding areas using selective breeding for pure breed improvement, and cross-breeding with known exotic breeds to improve productivity of meat and milk. Other intervention areas are to be undertaken include the following:

- Selecting four indigenous sheep breeds to produce male sheep for strengthening the genetic base of indigenous sheep through establishing centers for bull-semen production;
- During the plan period, 500 exotic cows with suitable genetic base to the country's situation and 7,500 doses of semen for breed improvement and cross breeding to improve productivity of meat and milk;
- Importation of exotic improved sheep and goat breeds to increase productivity of meat and milk through cross-breeding, and establishment of breeding centers. To this end, 120 Boer sheep and 120 Dorpor goats will be imported and cross breed with indigenous sheep and goats. In addition to this, 5000 dose of semen will be imported and distributed to breeding centers; and,
- The supply of chicken will be augmented through the importation and distribution of 20,000 pure-line eggs with high productivity in meat and eggs production.

7.1.7.2 Animal Health Service

A number of infectious, parasitic and zoonotic diseases existing in Ethiopia impose huge economic costs, and are the cause of repeated trade bans that the country faces. To reduce the impacts resulting from livestock disease, the newly formulated animal health system will be fully implemented over the next five years. This will be implemented in addition to the interventions regarding improvement of feed availability and quality, improved animal health services and genetic improvement interventions aimed at coverage of national scope.

To eradicate animal diseases, the recently formulated health service program will be fully implemented during the next five years. As a result of this, animal health service coverage is expected to increase from the present level of 30% to 80% through the implementation of the following interventions:

- Strengthening field veterinary services through increasing the number of veterinary clinics from 1,587 to 3,600, mobile service delivery units and deployment of trained community animal health workers;
- Improving the supply and quality of vaccines by significantly expanding from the current level of production of the 16 types of vaccines. The annual production of dosages for the 16 type of vaccines will increase from 48,650,000 to 950,700,000 doses;
- Control and prevention of five trans-boundary animal diseases: namely foot and mouth disease, contagious bovine pleuro pneumonia, peste des petit ruminants, contagious caprine pleuro pneumonia and African horse sickness through vaccination;
- Establishing a livestock early warning system since the livelihood of the pastoral population is exclusively dependent on livestock, and their agro-ecology is highly prone to recurrent drought;
- To undertake animal health services activities based on community participation, 100 mobile health animal health service facilities will be established;
- Increase the number of people who receive basic animal health service training from the current level of 5% to 50%;

- At the end of the fifth year, produce 91.8 million doses for 7 types of vaccines that are not produced in the country currently;
- Expand tse-tse fly and trypanosomes prevention and control through suppression of tsetse flies and trypanosomes from the current area coverage of 25,000 km² to at least 85,000 km² by the end of the plan period;
- Conduct investigation and control of newly emerging poultry diseases through undertakings to understand the causes of, and solutions to and measures will be undertaken to be able to prevent the possible introduction of Highly Pathogenic Avian Influenza (HPAI) and to limit its spread in case of its occurrence;
- Eradicating diseases from the whole country is expensive, time-consuming, and is also difficult – if not impossible to achieve. In the coming 5 years, it is planned to establish a disease free zone in Amhara, Tigray and Afar, which is the best available option that a number of countries are making use of;
- To reduce the rate of down-graded skins from the current level of 40% to 5% through the application of modern technology to control external parasites;
- Conduct investigation on the causes of newly emerging unknown camel disease that has resulted in considerable fatalities in camels of Afar, Somali and other nearby areas over the last 4 to 5 years. Measures will be taken to put the disease under control in the next five years; and,
- A newly emerging unknown exotic poultry disease known as Gumboro is being reported as having resulted in considerable fatalities. Measures will be taken to put the disease under control in the next five years.

In addition to the aforementioned interventions, measures will be taken to strengthen the quarantine and inspection service - by increasing the number of quarantine station from 3 to 11, check posts from 3 to 12 and domestic abattoirs from 140 to 321. In this respect, the following targets are set to strengthen service provision:

- To strengthen quality control for animal products, one quality control laboratory will be established. Five animal health posts will be established to enforce control on animal product standards;
- Strengthening diagnostic and surveillance capacity of laboratories: the number of diseases surveyed will be increased to 6 from 1 currently, and the amount of samples tested per annum is targeted to increase to 2,845,000 from the present level of 95,000; and,
- Strengthening animal health information exchange by making use of modern technologies. The reporting rate is targeted to be increased from the current level of 40% to 80% by the end of the plan period. The number of diseases for which extension materials will be prepared is expected to reach 12 from the current level of none.

With regard to human resource development, major increases are planned in the number of animal health assistants from 800 to 6,000; senior meat inspectors from 50 to 684, and assistant meat inspectors from 160 to 519; laboratory technicians from 55 to 194; and graduate veterinarians from 60 to 500.

Table 7.9: Annual Targets for Livestock Production for the PASDEP Period

Type of Product	Targets for Subsequent Years					
	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
Meat product in tons (000)						
Cattle	327	331	336	340	463	469
Sheep	87	88	88	89	121	123
Goat	80	81	82	82	112	113
Camel	20	20	21	21	29	30
Local breed poultry	52	57	61	66	95	102
Improved breed poultry	6	7	8	8	9	10
Sub Total	566	577	587	598	821	837
Leather/hides						
Leather	3	3	3	3	4	4
Sheep skin	9	9	9	9	10	10
Goat skin	9	9	9	9	10	10
Camel skin	0.14	0.15	0.15	0.15	0.20	0.20
Sub Total	21	21	21	21	25	25
Egg product in tons (000)						
Local breed	16	18	19	21	28	31
Improved breed	3.7	4.0	4.3	4.7	5.1	5.5
Sub Total	20	22	23	25	34	36
Milk product in tons (000)						
Local breed cow	1,483	1,503	1,877	2,466	2,825	2,452
Improved breed cow	9	418	424	429	435	440
Goat	50	50	51	51	90	91
Camel	289	293	296	299	404	408
Sub Total	1,831	2,264	2,648	3,246	3,753	3,391
Fish product in tons						
Lakes	9.0	10.0	12.0	14.6	16.8	19.3
Rivers	0.1	0.1	1.3	2.2	2.6	3.4
Collected water	0.9	1.5	1.7	1.9	2.0	2.4
New water dams	0.0	0.0	0.0	0.8	1.3	2.0
Fish breeding	0.0	0.0	0.0	0.0	0.1	0.1
Sub Total	10	12	15	19	23	27
Honey and wax production						
Honey in tons						
Modern bee hive	8	16	23	31	38	42.8
Transitional bee hive	9	15	21	26	32	35.5
Traditional bee hive	21	21	20	19	19	20
Sub Total	38	51	64	76	89	98.6
Wax in ton (000)						
Modern bee hive	0.0786	0.1551	0.2314	0.3077	0.3840	0.428
Transitional bee hive	0.8800	1.4660	2.0520	2.6380	3.2240	3.546
Traditional bee hive	2.1310	2.0640	1.9970	1.9300	1.8630	2.038
Sub Total	3.0896	3.6851	4.2804	4.8757	5.4710	6.012
Silk production						
Silk cocoon	0.7	1.5	3	27	28	30

Table 7.10: Targets Set to Improve Productivity of the Livestock Sub sector

Domestic Animals Meat Weight in Kilo Grams (kg)	2004/05 (Baseline)	By the End of 2009/10	
		National Average	Special Areas of Production
Cattle	110	120	160
Sheep	10	12	14
Goats	9	11	13
Camel	140	145	150
Productivity of milk production/cow			
Local breed cow (liter/day)	1.5	4	5
Improved breed cow (liter/day)	9	9	12
Goat milk (liter/day)	0.	1	2
Camel milk (liter)	1,500	2,000	
No. of days local breed cow gives milk (liter/year)	180	240	
No. of days improved breed cow gives milk (liter/year)	300	300	
Productivity of eggs/per hen			
Local poultry (eggs in number/year)	50	70	90
Improved breed poultry (eggs in number/year)	140	150	210

7.1.8 Natural Resource Conservation and Management

The conservation and management of natural resources calls for the integrated development and utilization of the resource bases (land, soil, water and forest) to enable the transition to improved livelihoods, and to protect these resources for future generations.

a) Water-shade Development and Natural Resource Management

Major activities in the areas of natural resource management include, among others, sustainable land use and forests development, soil and water conservation, and water management for irrigation development. In water-shade development, the activities involved and the issues to be addressed include:

- Scaling up of activities in water-shade management proven to be appropriate and productive through practice and experience gained in the past;
- To strengthen the capacity of regional states through activities involving training of trainers in water-shade management;
- Prepare relevant packages in water-shade management technologies and distribute to users to undertake activities separately discussed in the following subsections.

b) Soil and Water Conservation

Conservation-based resource management will be pursued to control soil erosion losses from cultivated lands with varying slopes through the use of proven structural and biological

measures including interventions in area enclosures aimed at restoring the productivity of degraded lands through activities encompassing:

- Enclosing the degraded land from human and livestock interference and undertake measures that enhance rehabilitation processes. It is planned to implement 693,000 hectare of area closures during the planning period; and,
- The various practices of soil and water conservation will be implemented on mid-altitude and high lands, which have no moisture stress. The overall plan is to cover 10.8 million ha of land with such conservation measures;

c) Forest Resource Management

At present, about 4.1 million hectares of relatively dense forest (3.56% of the country) is available. During the coming 5 years, about 4.7 million hectares of degraded areas will be covered, which is about 5% of the total area. At the end of the plan period, the total forest area of the country will increase from 3.6% to 9 %. In order to promote and strengthen tree-planting activities, 2600 quintals of multipurpose tree seeds will be collected in the country and purchased from abroad and distributed to households and communities. To support this program, five tree seed centers will be established during the planning period.

The program will include surveying and mapping of 1.44 million ha to better understand the extent and spatial distribution of dense forests as well as to determine their capacity and implement a sustainable management plan.

d) Water Management for Irrigation

During the plan period, effort will be made to promote and strengthen small-scale irrigation schemes, and improved water use efficiency, including strengthening water harvesting and utilization practices through provision of appropriate technologies. Accordingly, 487,000 hectares of land are planned to be cultivated by the use of irrigation. The extension and training programs will pay particular attention to enhancing farmers' capacity to use water resources efficiently, and help to build the community-level institutional structures necessary for effective irrigation and water resource management.

In addition to this, 470 water reservoirs will be constructed for water harvesting and 58,750 hectares of land will be cultivated through irrigation using the water to be harvested.

e) Sustainable Land Use Management

To develop and strengthen the natural resource information system, a database will be established at *woreda* level. The plan during the five-year period calls for the establishment of this database in 550 *woredas*.

To utilize natural resources in a sustainable manner, proper land-use plans will be prepared by analyzing the suitability of land in 18 watersheds during the PASDEP period.

So far, out of 13,000,000 rural households, land registration has been completed for about 6,216,819 households, and they have received first level land user right certificates. The regional distribution is: 2,484,693 households in Oromia, 2,400,000 households in Amhara, 632,000 households in Tigray and 700,126 households in SNNPR.

During the next 5 years, the remaining 6,783,181 households will receive first level certificates in four regions (Amhara, Oromia, SNNPR and Tigray). Moreover, second level certificates in cadastral map will be issued for about 1 million households in pilot project areas that are being supported under Strengthening Ethiopian Land Tenure and Administration Program and pilot Land Administration Scheme.

f) Wildlife Protection, Development, and Utilization

The economic value of wildlife, among others, is a significant one. Thus, much more emphasis will be given to develop wildlife-based tourism and promoting other wildlife utilization schemes. This will be achieved through properly protecting and developing the country's wildlife resources. Efforts will be made to strengthen 20 existing wildlife protected areas and two wildlife ranches/farms. During the plan period, two community conservation sites will be established. Management plans will be prepared for 16 protected sites. In order to enhance wildlife-based tourism, infrastructure will be developed for 12 sites. Better wildlife protection, development and utilization will be achieved through promotion of conservation education and awareness creation for people.

g) Biodiversity Conservation and Sustainable Utilization

Biodiversity is a source of essential inputs for agricultural development, and provides a multitude of choices and means for dealing with natural and man-made environmental disturbances. It is a security for improved livelihood and a foundation for our agricultural development strategy⁸.

These efforts will be strengthened, reinforced and expanded to effectively support food security and livelihood programs during the period of the PASDEP in line with the development plans of other affiliated bodies of the Ministry of Agriculture and Rural Development. 7,700 species of high economic value will be characterized, popularized for researchers and other users. 6,500 species with high economic value, endemic and endangered will be conserved. One duplicate gene bank, 10 field gene banks, 15 community gene banks and 14 in-suit conservation areas will be established during the plan period.

⁸ Biodiversity conservation and sustainable utilization, amplified by technologies generated through research, and put into practice should form the basis for sustained food security and improved livelihoods. The Institute of Bio Diversity (IOB) has been conserving biodiversity for two principal reasons: to ensure their continued existence and to prepare them for research and development.

7.1.9 Agricultural Research and Extension

The main focus of the Government's agricultural development strategy is to produce enough food to ensure self-sufficiency in food production at household level and to support intensification of marketable farm products (both for domestic and export market). To help achieve this, extension service is currently being strengthened through various means. The number and education level of Development Agents is being increased significantly through the operation of Agricultural Technical, Vocational and Educational Training program; and thousands of FTCs are being established to transfer improved agricultural technologies and give adequate services within individual farmers reach. The following activities will be undertaken:

a) TVET Program

In a situation where many farmers are illiterate, technical knowledge in production, adding value, and marketing presents challenges. Cognizant of this, the Government's response includes providing extensive TVET in agriculture, for which 25 agricultural TVET colleges have been established.

During the first phase of the program, it was planned to train 55,000 development agents, of which, 45,000 will be placed at FTCs to provide direct support to farmers; 5,000 will provide veterinary service, and 5,000 will support cooperatives. To date, a total of 23,378 students have graduated and assigned at FTC in all regions.

Owing to the increase in the number of Farmers' Association (FAs) from the previous 15,000 to about 18,000, the number of FTCs will also increase by the same amount requiring additional 9,000 development agents, 1,000 animal health workers and 1,000 cooperative workers, which makes the remaining balance to be 42,622.

b) Farmer Training Centers (FTCs)

The core functions of FTCs will be provision of extension services through training and demonstration. They will also serve as information and exhibition centers. The training given by the centers includes entrepreneurship skill development to produce business-oriented farmers. So far 5,493 Farmers Training Centers have been completed and are ready to commence services. During the plan period, it is envisaged to construct a further 3,000 FTCs in addition to the 15,000 planned, bringing the total number to 18,000 by 2010. In the coming five years, they will be equipped with all necessary teaching materials, workshop implements, and computers connected with the *woreda*-net program. The training at the FTCs will focus on two major categories: farmers training on agricultural extension packages and modular training.

i) Training on agricultural extension package

This training package is a short-term training package to be given to each individual farmer and livestock producer. The training includes Minimum package and Household package. The Minimum package will be given for each individual farmers' training centers four times a

year with an intake of 190 farmers by which at the end of the program 10,393,380 farmers will benefit from the training package. Similarly, under the Household package, farmers will be trained in which at the end of the program 4.5 million farmers will benefit from the training package.

ii) Modular training

This is specialized training for farmers with above 4th grade education working in agriculture with their families, and farmers currently involved in agriculture owning land. Since the training requires training materials, this will be full filled for a limited number of centers at the beginning of 2006/07. The number will increase in the subsequent years. Each FTC will train 60 trainees in one round per year for a period of three months (two days a week) and the total number of farmers trained over the planning period will be over 2,952, 540. (Table 7.11)

c) Strengthening the Research-Extension-Farmer Linkage Council

Research, extension, farmers and all concerned stakeholders will work jointly for effective technology generation and promotion. This will be achieved by employing more efficient linkage strategies, which will bring together all stakeholders in the integrated process of technology generation, development, transfer, utilization and feedback. The council will meet two times a year to review the performance of research and extension programs; ensure effective communication, efficient utilization of resources, and proper implementation of research-extension-farmer linkages; recommend policies, and other functions related to the research-extension-farmer linkage and the operation of research system and agricultural extension services.

Table 7.11: Annual Targets for Agricultural Extension Services

Activities	2005/06	2006/07	2007/08	2008/09	2009/10	Total
Training of agricultural extension packages						
Minimum packages	1,043,670	1,062,670	1,844,330	3,022,710	3,420,000	10,393,380
Household package	137,325	328,560	786,106	1,880,818	1,367,191	4,500,000
Modular training (above 4 th grade)		335,580	582,420	954,540	1,080,000	2,952,540
Construction of FTCs	2,100*	2,114	6,202	2,091	-	12,507
Total number of completed FTCs	5,493	5,593	9,707	15,909	18,000	

* From 2100 FTCs, only 100 FTCs have been ready to provide services in 2005/06.

d) Agricultural Research

Effective *agricultural research* is at the core of improving productivity and is central to making progress under the five year plan. The major outputs of the public research system are varieties with improved agronomic and protection practices that can be used in crop diversification and specialization, for both traditional food crops, as well as high value crops

such as vegetables, spices and other horticultural crops. Research is also conducted on food science, socio-economics and post harvest technology as well as farm implements. The research centers will also maintain improved varieties and multiply breeder and pre-basic seeds and seedlings of released varieties of crops, and distribute them to different stakeholders.

Additional areas of research include livestock research, with focus on imported forage varieties, and generating better information on animal husbandry, health care, and breed improvement; as well as research on land and forestry management, fisheries, and biotechnology.

Biotechnology innovations have a substantial potential to enhance productivity: the agricultural biotechnology research focuses on technologies like tissue culture, mass propagation, marker-assisted breeding in crops and livestock, and promotion of useful microbial processes. Soil calibration of the major soil types of Ethiopia will also be conducted by the research system to better assess the amount of fertilizer required by different types of crops.

i) Crops research

During the five year plan period, in the area of crop research and adaptation of imported technologies, the following targets are set in the area of adaptation of crop varieties: that is 25 crop varieties will be adapted for localities with adequate rains; 17 crop varieties for localities that get inadequate rains; and 13 crop varieties for irrigated areas. The crop varieties that are going to be imported include cereals crops, pulse crops, oil crops, cotton, fruits and vegetables, flowers, spices crops, root crops, and tea varieties. With regard to internal research technologies it is planned to release 16 crop varieties for irrigated localities; 57 crop varieties for localities with adequate rainfall; and 28 crop varieties for localities with inadequate rainfall; and 6 varieties for the 'Belg' season production. In addition to this, it is planned to release 106 crop-protection technologies, and 54 crop-management technologies during the plan period.

It is planned to release three imported varieties that are drought resistant with high productivity for pastoral areas of livestock potential and partial livestock potential localities as well as release 24 varieties from local varieties and from in-country research results. In addition to this, 10 types of handling and farming methodologies and five rain forecasting methodologies and various maps are planned to be released based on research findings. For livestock potential and partial livestock potential population, it is planned to release seven varieties of crops for animal feed, and produce two information kits on animal feed on the basis of research results.

ii) Livestock research

With regard to livestock research, the focus will be on imported technology varieties and generating better information husbandry, health care and breed improvement. With regard to livestock research based on imported technology, four poultry variety breed will be released for localities with abundant and inadequate rainfalls. Different electric incubator suitable for

different environment, are among the technologies to be adopted. Six technologies for 'Koroso' fish using floating technology have been imported. 23 animal-feed technologies suitable for localities with abundant rainfall, 11 honey-producing technologies information kit will be made available. With regard to animal health, 2 technologies for abundant rainfall localities and 3 technologies for localities with inadequate rainfall and 11 technologies for 3 varying ecological environments have been released. In addition to this, 5,600 samples of livestock products diseases will be examined for exports. One sheep breed variety will be released for localities with abundant rainfall and 3 varieties of sheep, goats and cattle meat and hides and skins product technologies information kit will be released to improve the quality of products. 2 technologies for fish feeding and fish farming will be developed through research; with regard to fish limnology, 12 information kits for localities with abundant rainfall and inadequate rainfall localities. Also 7 technologies will be released to environments with different ecology. In the area of milk production, 8 information kits will be released based on research outcomes. For traction power and adequacy of farming practices, 7 information kits will be produced for localities with adequate rainfall.

iii) Forest, soil, and water research

In the area of soil and water research, a target has been set to undertake research activities by importing and adapting eight different technologies; preparing 44 information kits for localities with adequate rainfall; and preparing 8 information kits for localities with inadequate rainfall.

In addition to this, it is planned to obtain 27 information kits based on research results. In general, this dimension of the research wing include major research undertakings on crop varieties, fertilizer application index based on soil research results; research undertakings to obtain information to establish problems associated with land of acidic soil and provision for alternative use of the land; provision for better alternative solutions to problems associated with soil salinity; technology on irrigation water application and use; water and soil conservation methods; proper maintenance of watersheds; use of water harvesting techniques; and information on soil nutrients. In 11 research centers, soil maps will be prepared; 2 for localities within adequate rainfall and 9 for localities with adequate rainfall.

In the area of forestry research, using imported technologies, targets are set to prepare one information kit and 8 tree varieties for localities with abundant rainfall. With regard to in-country research outcomes, target has been set to release tree varieties, tree variety technologies and information appropriate to the three localities as follows: 63 varieties to localities with abundant rainfall; 16 varieties to localities with inadequate rainfall and 6 varieties to livestock potential localities.

iv) Agricultural biotechnology research

Agricultural biotechnology research branch focuses on technologies like tissue culture, mass propagation, marker-assisted breeding in crops and livestock, and promotion of useful microbial processes. Various plant technologies on coffee, pineapple, hail, black pepper, cassava, vanilla, potato, false banana, geranium, pyrethrum, citrus, banana, and garlic/ are

among the 16 varieties that are within the protocol of fast breeding varieties. With the adaptation of two technologies of fetus transplant for breeding mixed cattle, efforts will be made to accelerate cattle breeding. In addition to this, by employing bryzorium bacteria, two technologies that will help to increase productivity will be produced. Accordingly, 7.3 million pineapple seedlings, 3.1 million coffee seedlings, 0.6 million potato seedlings will be reproduced. Also 4.1 million kg of inoculants will be prepared to be used as bio-fertilizer.

v) Agricultural mechanization research

In the field of agricultural mechanization research, 1 technology for localities with abundant rainfall and 6 technologies for localities with inadequate rainfall will be developed and made available based on in-country research results. One additional technology will be developed and made available to livestock potential localities. In addition to this, two technology catalogues that can serve all the three ecological localities will be developed and made available to users.

vi) Food science and post harvest technologies research

With regard to food science and post-harvest technologies research, 13 technologies will be made available including food preparation technologies for children; technology for preservation of fruits and vegetables, and technologies for indicating quality of food.

vii) Socioeconomic research

In the area of socioeconomic research, absorption and outcome of agricultural technology, 9 information kit concerning natural resource use and agricultural production technology; 11 information kits on agricultural marketing; 6 information kits on agricultural systems will be made available. The information will be focused on identifying problems that have created impediments to absorption of agricultural technologies and provide alternative policy on technologies focused on useful information on agricultural marketing.

viii) Multiplication of crop technologies

With regard to multiplication of crop technologies, 2,500 basic seeds will be multiplied in localities practicing irrigated agriculture and 4,850 Qt. of pre introduction seeds, and 4,850 Qt. of multiplier seeds will be produced. Similarly, for localities that have abundant rainfall, 39,262 Qt. introduction seeds, 19,208 Qt. pre-introduction seeds and 1,375 Qt. multiplier seeds will be produced; 100,000 branch pieces, 100,000 fruit seedlings, 50,000 coffee plant seedlings, and 45,000 pieces / seedlings pre introduction and 6,500 seedlings / pieces multiplier seeds of perfumed and plant varieties used for medical purpose will be multiplied. With regard to animal breeding technology, a total of 112,700 technologies will be multiplied for localities with abundant rainfall, encompassing mixed breed cows, heifer, poultry, fish and developed eggs. 46 tons of forest seeds, 40,000 kg of seeds collected from 40 local and imported varieties of forest seeds, and 57,500 tree seedlings will be distributed to producers. To reproduce improved and quality and variety seeds, 40,000 hectares of land will be

reserved for forests for the production of forest seeds. With regard to mechanization of food products technologies, 3 to 5 samples will be identified and made available to users.

ix) Technology transfer and expansion works

Prior to widely distributing research outcome of technologies, 150 technologies will be tested in localities with abundant and in adequate rainfalls. With regard to improved agricultural technologies, 10,950 experts, development workers, and farmers will be given the relevant training; 139 agricultural extension materials, explanatory manuals, and written materials (flyers) will be prepared and distributed as well as experience sharing consultations and information exchange will be organized among stakeholders.

Model technology introduction and expansion activities will be undertaken to scale up imported and locally produced technology outcomes of research in order to enhance their impacts on increases in productivity, their reliability, as well as ensure their effectiveness to bring about positive impact on the livelihood of communities who apply the technology. For this purpose, in localities with inadequate rainfalls, 3,522, 2,936; 1,200; and 757 farmers will participate in pulses, cereals, oil crops, and fruits production pilots, respectively. Besides, 1,831 farmers will participate in perfumery medical plants; 2,060 participants in milk production and livestock feed production; 85 in poultry production; 1463 participants in soil and water research and more specifically in fertilizer application studies and handling of acidic soils; and 95 participants in fish breeding technology. Scaling up of integrated technologies coupled with introduction and expansion activities will also be undertaken. Accordingly, among livestock potential population, 766 livestock producers will participate in scaling up of milk production technology and livestock feed technology packages. In this connection, 304 residents of Addis Ababa will benefit from animal health services expanded technology activities.

7.1.10 Food Security Program (FSP)

a) Focus of the Program

The Food security program is designed to address problems of shortfalls in food production, vulnerability to falls in consumption and incomes and consequent hunger that the country has faced repeatedly, through adaptation of development alternatives to bring about lasting solution. The effort to reduce vulnerability is central to the five years plan strategy (2005/06-2009/10): including measures to reduce the variability in crop production and overall food availability – through more irrigation and water control, diversification of crops, and better integration of markets, transport, and information links; maintenance of macroeconomic stability; expansion of off-farm employment and income-earning opportunities, and better functioning credit markets; provision of improved health services and nutrition; introduction of innovative measures, such as experiments with crop and weather-based insurance mechanisms; and, above all implementation of the national FSP designed to manage the shift away from the cycle of dependence on emergency relief.

Records show that in the worst crop year, up to fifteen million people in the drought-prone areas of the country could face food shortages, which are either *chronic or transitory* in nature. The cause for the former is structural, while the later is usually triggered by short-term emergency situations. Chronic food insecurity reflects loss of capacity to produce or buy enough to meet annual food needs even under normal weather and market conditions. Transitory food insecurity, on the other hand, reflects a weak resilience to withstand shocks in times of severe droughts.

Cognizant of the degree of vulnerability people have faced, the Government in close collaboration with its development partners, has developed the FSP within the framework of the wider five-year plan. The core objectives of the program are twofold. One is to enable the 8.29 million ‘chronically’ food insecure population to attain food security within a five year period, and the other is to improve significantly the food security situation of the remaining 6.71 million facing ‘transitory’ food insecurity problems.⁹

Two underlying principles guide program implementation: reliance to the extent possible on helping farmers use their own resources to overcome food insecurity, and a shift away from reliance on food aid. The key interventions designed to attain household food security over the five-year plan period are: i) building household assets through on-farm activities; ii) supporting voluntary resettlement to more productive areas; iii) a Safety Net Program, which helps bridge food gaps while building community assets and; iv) introducing non-farm activities. These are discussed in detail separately below:

b) Household Asset Building

Drought has been a major factor causing loss of crops and livestock. Repeated food shortages have also forced many to sell their assets particularly livestock to meet immediate needs.

Building sustainable household assets is therefore a major part of the solution to the problem of food insecurity, for which appropriate technologies have to be identified and needed resources made available. Different menus of technological packages have been prepared and disseminated to these households through the extension services. The packages include provision of improved inputs to enhance livestock and crop productivity, moisture conservation and utilization, natural resource development, training, support for additional income-generating activities, and provision of market information. This effort will be expanded and refined over the coming five years, supported by a credit facility for targeted households.

Water is one of the most critical resources for crop production in moisture-deficit areas, and the focus in this regard is on the productive use of rainwater and surface runoff/ run-on systems, such as pond construction, roof water harvesting, simple diversion schemes, and

⁹ At the design stage of the Program, five million people were considered as chronically food insecure, while the remaining ten million were considered as vulnerable to transitory problems. The estimate of the chronic caseload then was a simple average of the previous ten years relief beneficiaries. During the last one year, however, a proper estimate of the chronic caseload has been undertaken, and recent estimates have put this number at 8.29 million with the balance of 6.71 now considered as facing transitory food insecurity problems.

construction of hand-dug wells combined with catchment treatment. Small-scale irrigation is also very important to improve cropping intensity and thereby reduce the effect of erratic rainfall. The irrigation technologies will include construction of earth dams, river diversions, treadle pumps, and hand pumps that are managed by individual or groups of farmers. It is also recognized, however, that irrigation will not be possible for many farmers, and rain-fed agriculture will continue to be at the core of their livelihoods for years to come; and that one innovative and possibly cost-effective intervention for them may be the development of weather-based insurance mechanisms.

With regard to livestock, the technology focus will be on introducing improved animal breeds and availability of improved animal feed, water, and health. To this effect, due emphasis will be given to the establishment of water points, production of forage and fodder crops at household level, and improvement of community grazing.

c) Voluntary Resettlement Program

Over the years, a large portion of the country's population has lost the capacity to be productive mainly due to land degradation and high population pressure, while at the same time Ethiopia has a considerable amount of land currently under-utilized but still suitable for farm activities. To rationalize resource use, and thereby help the food insecure households, the Government is supporting voluntary resettlement as part of its food security program. Accordingly, it has targeted to help resettle 440,000 households or 2.2 million people and by the end of 2004/05 50% have been settled and the remaining 50% will be settled during the period of the PASDEP. Details are given in Table 7.12.

Resettlement is on a purely voluntary basis, and each settler household is guaranteed a package of assistance that includes provision of up to 2 hectares of fertile land, seed, oxen, hand tools, utensils, and food rations for the first eight months. Settlers are also provided with access to essential social infrastructures (clean water, health post, feeder road), and logistics support. To ensure the efficient and effective implementation of the program, an implementation manual has been prepared, and extensive training and awareness creation activities have been carried out at federal, regional, *woreda* and *kebele* levels.

Despite some problems encountered in its early implementation, especially during the first year, the resettlement program has proved itself as a crucial and reliable alternative that ensures food security in a very short period of time. Recent assessments have shown that the majority of the settlers have attained food self-sufficiency and their livelihoods have improved considerably. The program will therefore be expanded to accommodate as many settlers as possible

The voluntary settlement program will be continued and the total financial resources needed to undertake the program is estimated at about 1.2 Billion Birr. This financial resource in terms of expansion of basic development activities has benefited not only the settlers but also the community that live in the localities.

d) The Productive Safety Net Program

The Safety Net Program is intended to serve the dual propose of helping bridge the income gap for chronically food insecure households, and engaging such households in community asset-building efforts to earn income, especially during the lean season and times of drought.

The program is designed to address the income gap faced by chronically food insecure people in 287 *woredas*. It has two components: labor-intensive public works and direct support for labor-poor households. The able-bodied will be engaged in public works for which they are paid a minimum amount, while the labor-poor are provided the same amount free. A program implementation manual has been prepared, and training and awareness creation activities have been undertaken at different levels. The communities supported have identified target groups for public works and direct support, and capacity-building measures have been undertaken. Training and capacity building efforts will continue where required.

The Government and donors have shown strong commitment to the success of the program, which commenced in February 2005. It has now completed its first year and the second year's activity has already started since January 2006. Implementation of this program will continue throughout the period of the PASDEP.

A key feature of the Safety Net Program is its household focus. It is linked to the household asset-building efforts of the FSP in that the priority for household asset-building interventions is assigned to those covered by the Safety Net Program, as they are the chronically food insecure. The Safety Net Program through its predictable transfer of resources will help 'prevent asset depletion', which is an important factor for the attainment of food security at household level. This is in addition to the community assets (public works) it helps build.

The support given through this program to the chronically food insecure 8.29 million people will be continued until 2009/10. As the development component of the food security program succeeds, the population covered under the program will be reduced. The total resource required to implement the program including support given in kind (food) is estimated at 2.5 billion Birr per annum. Most of the support given is going to be in cash.

e) Non-Agricultural Income

As the food insecure households are resource poor, living in drought-prone and degraded areas, focusing on crop and livestock production alone may not entirely solve the problem of food insecurity in some areas. For such areas, income diversification through promoting non-agricultural activities is of paramount importance. The proposed intervention in this regard include the following:

i) Communities that depend in agricultural activities

Supports alternative or supplementary income sources in non-farm activities including:

- Strengthened market effectiveness, credit services through micro-finance institutions;
- Establishment of marketing cooperatives to be able to sell products at good price, and;

- Provision of training, and organization of cooperatives.

All of these interventions are important for both agricultural and non-agricultural activities.

ii) Activities for livestock potential communities

In livestock potential localities of Afar and Somali as food security programs are not implemented at household level, the intervention envisioned include the following:

- Relevant activities implemented at community level;
- Activities involving water resource development (people & livestock), development of irrigation, development of forage and grazing land development;
- Safety-net activities should take into consideration cultural values and living styles methods of the society.

iii) Other intervention areas

In addition to the key interventions discussed above, due attention will also be given to nutritional issues, and the maintenance of emergency capabilities. Nutritional issues encompass three components - food, health, and caring practices. The Ministry of Agriculture and Rural Development's responsibility in this regard is related to food production and distribution, which will be addressed through the aforementioned interventions. The rest of the nutritional interventions will be the responsibility of the Ministry of Health and other pertinent bodies.

In light of the occurrence of transitory food insecurity in the country, maintaining emergency capabilities will be important. In this regard, the functions of the Food Security Co-ordination Bureau of the MoARD and the Disaster Prevention and Preparedness Agency will be merged to ensure effective and unified response to both chronic and transitory food insecurity problems. With the improvements in food security, the threats of emergencies are expected to diminish.

f) Food Security Program Targets for the Period 2005/06 to 2009/10

The Government's program of action to reverse the problem of food insecurity during five year period is already underway, and encouraging results have been achieved. In many areas, food insecure households (eg settlers) have started to support themselves; a considerable number of food insecure households are making use of water harvesting and small-scale irrigation schemes, and their incomes are improving. As noted, by the end of the program period (2009/10), the 8.29 million chronically food insecure people are expected to attain better food security through the various interventions planned, and the situation with respect to transitory problems is also expected to have improved significantly. In the course of the five-year period, the following targets are to be achieved:

i) Household asset building

Specific targets cannot be set for this intervention. The program consists of specific purpose grants to the regions to promote tailor-made mixtures of support to the targeted households. The following will, however, remain the major areas of focus: The quality and quantity of agricultural packages and other interventions will be further expanded. The size of water harvesting and small-scale irrigation schemes will also be expanded, various water harvesting technologies will be used and farmers will be familiarized with effective and efficient water utilization methods. The Government is committed to avail the necessary financial and technical inputs to make the program work so that by the end of the program period, the entire case load of chronic food insecurity will be over come on a sustainable basis.

ii) The resettlement program

The Government will continue supporting voluntary resettlement of additional households. The target of resettling 291,000 households remains, having already settled 149,000 households. The overall resource requirement is estimated at about Birr 1.2 billion, which will also help build productive assets at the local level.

iii) The productive safety net program

This program is expected to continue addressing 8.29 chronically food insecure population over the coming 5 years (until 2009/10). The number will decrease from year to year as households graduate from food insecurity. On the average, its resource requirement is estimated at approximately Birr 2.5 billion per year.

iv) Non-agricultural activities

Specific targets cannot be set for this activity. The tasks are beyond agriculture, and the focus will be on the promotion of small and micro-enterprises. To this effect, improved credit services will be provided supported by appropriate training on those areas selected for interventions. The proper use of local resources as raw materials will be encouraged, and local markets will be developed.

g) Other Elements of Vulnerability

There are important groups among the vulnerable: most notably the elderly and disabled, but also orphans and vulnerable children, who cannot benefit from productive safety net interventions and for these direct transfers will be supported. It is also realized that although the Food Security Program targets the most geographically at-risk areas of the country, there inevitably will remain very poor households in *woredas* that are not targeted under the program, and for them additional measures will continue to be needed. NGOs and Civil Society Organizations (CSOs) are playing a critical role throughout Ethiopia in providing support for both these groups.

Table 7.12: Annual Regional Resettlement Targets of the Food Security Program

		2005/06	2006/07	2007/08	2008/09	2009/10	5-Year Total
Amhara Region							
	No. of resettled families	10,000	15,000	15,000			40,000
	No. of food secured families	100,000	104,875	110,578	76,696	57,273	449,422
South Region							
	No. of resettled families	17,600	7,600	20,000	20,000	52,400	117,600
	No. of food secured families	10,000	36,000	70,000	140,000		256,000
Tigray							
	No. of resettled families						
	No. of food secured families	49,427	127,130	167,751	149,021	149,021	642,350
Oromiya							
	No. of resettled families	3,508					3,508
	No. of food secured families	37,838	52,969	26,485	26,485	27,068	170,845
Total							
	No. of resettled families	31,108	22,600	35,000	20,000	52,400	161,108
	No. of food secured families	197,265	320,974	374,814	392,202	233,362	1,518,617
Grand Total		228,373	343,574	409,814	412,202	285,762	1,679,725

7.1.11 Agricultural Marketing

During the plan period, small farmers are expected to play a leading role in agricultural marketing. To this end, the Government will facilitate appropriate conditions through providing necessary infrastructure, land and new technologies to enable small farmers

obtain relevant market information and fairly compete with well to do farmers, cooperatives, and the modern private sector at large.

The following activities have been undertaken by the Government to benefit farmers and livestock potential community. The Ministry of Agriculture and Rural Development has been reorganized, and appropriate structure has been set up to direct, coordinate and regulate agricultural marketing activities. Agricultural marketing strategy has been designed. The establishment of the cooperatives Agency has helped to augment the participation of cooperatives. The MoARD has established executing office to facilitate advance credit facility for warehouse service. Trade expansion tasks have been completed in cooperation with stakeholders in agricultural marketing activities. Through the creation of consultation forums, the Government has facilitated for investors to resolve marketing problems by discussing the matter with government bodies at different levels.

Through the creation of effective coordination between the producers and recipients, efforts are underway to integrate their activities. Guidelines have been produced to ensure the timely supply of fertilizers in adequate quantity and fair price as well as to ensure proper implementation of fertilizer purchase and distribution.

With regard to the formation of marketing organizations, preparatory activities are being completed to establish the Ethiopian Commodity Exchange Center.

a) Marketing Plan (2005/06 – 2009/10)

Income from the export of agricultural products is planned to increase from US\$546 million in 2004/05 to US\$1,515 million by the end of 2009/10. To meet the plan targets the following activities will be undertaken:

Supply of agricultural inputs

i) Fertilizers

Forums will be organized to discuss the guidelines for the purchase and distribution of fertilizers and the guidelines will be implemented. Close supervision will be made in the course of implementation. The target for the plan period is to increase the fertilizer supply from 480,000 MT in 2004/05 to 820,000 metric tons by the end of 2009/10.

To ensure the appropriateness of the quality of the fertilizer supplied to the farmers, at the federal level quality control activities will be undertaken in the major warehouse facilities. Further quality control will be carried out at regional levels to ensure quality until the fertilizer reaches the farmers.

ii) Improved seeds

To provide for the continued supply of improved seeds, the focus of the intervention during the plan period is to produce improved seeds on farmers' plots. Accordingly, the Ethiopian

Improved Seeds Agency will ensure the continued supply of improved seeds with focus on pre basic seeds multiplication activities. During the plan period, emphasis will be placed on promoting seed multiplication activities on farmers' plots. In addition to this, developers will be encouraged to participate in improved seeds multiplication activities.

By the end of the plan period, from the source mentioned above, the total quantity of improved seeds to be supplied is estimated to be 1.8 million Qt. Of this, 720,000 Qt. will be supplied by the Ethiopian Improved Seeds Agency, 180,000 Qt. by private seed producing organizations, and 900,000 Qt. from private farmers' plots.

iii) Supply of other inputs

Other inputs include improved agricultural implements; inputs for irrigation and inputs for supply of animal products. The amount to be supplied by the end of the plan period will be 344,000, 206,017, and 1,418,173 for agricultural inputs, irrigation, and animal products, respectively. Relevant studies will be undertaken to improve the supply of these inputs and quality control work will be introduced.

b) Expansion of Export of Agricultural Products and their Markets

Export market promotion strategy will be designed in foreign trade: through the use of brochures, posters and documentary films. Export promotion will be intensified to open market for non traditional export products and export promotion activities will be in place to enter into new markets.

Through the preparation/documentation of appropriate files on private organizations and cooperatives, efforts to promote exports will be undertaken. The activity details and targets include the following:

i) Five year targets for infrastructure and other facilities

- 12 additional new abbaters will be constructed to cater for export;
- 11 cold storage facilities will be constructed for fruits and vegetables;
- Existing 7 cold storage and packing facilities will be upgraded;
- 29 trucks fitted with freezing facility will be procured for transporting export goods; and,
- 49 warehouses for gum products and cleaning facilities/houses will be constructed.

ii) Market study and expansion

- Export market strategy will be designed based on in-depth studies;
- 11 foreign trade missions will be organized and carried out;
- Marketable commodities transfer studies will be undertaken for 11 new export markets in the area of packing, quality level in export handling, and other related studies will be undertaken;
- 320 brochures will be printed for export market promotion;

- 4 documentary films will be prepared in Amharic, English, French, and Arabic languages;
- 6.04 million brochures will be printed and distributed; and,
- Profile of 70 private organization and cooperatives will be prepared and distributed as required.

Annual quantitative targets for export products are depicted in tables 7.13, 7.14, and 7.15 below.

Table 7.13: Summary of Annual PASDEP Targets for Agricultural Export Products

Items	Amount in (000) Ton		Amount in US\$ Million	
	Baseline 2004/05	End of Plan Period 2009/10	Baseline 2004/05	End of Plan Period 2009/10
Live animals	102	213	12.4	33.6
Meat	8	62	15.6	136.4
Eggs	0.1	0.2	0.22	0.3
Honey	0.02	0.1	0.35	0.48
Bees-wax	0.4	0.5	1.18	1.73
Zibad	0.06	0.71	0.23	0.28
Food crops	18	62.21	8.76	18.23
Pulses	119.5	294.5	35.29	82.4
Oil seeds	141.2	325.6	101.96	293.03
Natural gum	3.4	6.6	4.95	9.30
Coffee	159.6	323	334.5	786.67
Tea	1.5	5.6	2.6	9.22
Spices	11.3	20.3	7051	14.01
Cotton	1.6	8.4	1.39	9.28
Vegetables and fruits	39.5	135.9	19.22	120.03
Total			546.16	1,514.98

Table 7.14: Annual Targets for Export of Agricultural Products During the Period of the PASDEP

SN	Type of Product	Scale	2004/05 Achieved	Subsequent Years Targets					
				5 Year Plan	2005/06	2006/07	2007/08	2008/09	2009/10
1	Live animal export	No.	102,000	973,000	180,000	185,000	193,000	202,000	213,000
2	Meat export	Ton	8,000	224,000	30,000	36,000	45,000	52,000	62,000
3	Eggs Export	“	100	1,011	187	193	200	210	221
4	Honey export	“	1.8	481	89	92	95	100	105
5	Wax export	“	400	2,412	446	459	478	502	527
6	Zebad export	“	0.61	3.29	0.63	0.63	0.65	0.67	0.71
7	Food crops export	“	18,000	223,250	30,000	36,000	43,200	51,840	62,210
8	Pulses export	“	119,450	1,056,710	142,000	170,400	204,480	245,380	294,450
9	Oil crops export	“	141,230	1,168,340	157,000	188,400	226,080	271,300	325,560
10	Natural gum export	“	3,385	24,445	3,587	4,051	4,667	5,499	6,641
11	Coffee export	“	159,630	122,600	178,000	207,000	240,000	278,000	323,000
12	Tea export	“	1,540	23,360	3,000	4,576	4,904	5,254	5,626
13	Spices export	“	11,250	92,278	16,700	17,535	18,412	19,332	20,299
14	Cotton exports	“	1,580	38,353	6,950	7,298	7,662	8,045	8,448
15	Fruits and vegetables	“	39,483	357,770	45,000	49,590	55,013	72,286	135,881

Table 7.15: Annual Targets for Export Earnings From Agricultural Products During the Period of the PASDEP

SN	Type of Product	Scale	2004/05 Level	Subsequent Years Targets					5-Year Plan
				2005/06	2006/2007	2007/08	2008/09	2009/10	
1	Live animal export	US\$ million	12.4	28.4	29.4	30.4	31.5	33.6	153.3
2	Meat export	“	15.6	66	77	99	114.4	136.4	492.8
3	Eggs export	“	0.22	0.24	0.25	0.26	0.27	0.28	1.30
4	Honey export	“	0.35	0.40	0.41	0.43	0.45	0.48	2.17
5	Wax export	“	1.18	1.46	1.50	1.57	1.64	1.73	7.9
6	Zebad export	“	0.23	0.25	0.25	0.26	0.27	1.28	1.31
7	Food crops export	“	8.76	8.8	10.55	12.62	15.19	18.23	65.39
8	Pulses export	“	35.29	39.76	47.60	57.23	68.73	82.44	295.76
9	Oil crops export	“	101.96	143.82	169.56	203.47	244.17	293.03	1,054.05
10	Natural gum export	“	4.95	5.02	5.67	6.53	7.70	9.30	34.22
11	Coffee export	“	334.5	393.3	504.44	584.44	676.67	786.67	2,945.56
12	Tea export	“	2.6	4.6	7.5	8.04	8.61	9.22	37.98
13	Spices export	“	7.51	9.4	12.1	12.7	13.34	14.01	61.56
14	Cotton exports	“	1.39	9.7	8.03	8.43	8.84	9.28	44.3
15	Fruits and vegetables	“	19.22	24.47	25.73	30.4	48.62	120.03	249.25
Total		“	546.16	735.62	899.99	1,055.78	1,240.40	1,517.28	5,446.85

c) Improving and Strengthening Domestic Market

The underlying development objective of the country is the creation of a strong market economy. Such accelerated development can be achieved only when the agricultural economy develops within the framework of market systems.

In order to fulfill this objective, the farming community should abandon the traditional system of agricultural production and adopt market-oriented approach and promote efficient system of marketing that encourage both sellers and buyers. This calls for increasing the country's production and productivity, limiting the number of chains of exchanges, and introduce efficient marketing systems by creating conditions that bring closer producers and buyers as well as minimizing marketing costs, expanding required marketing services and laying strong foundation for export.

In order to facilitate for an efficient product exchange, the following activities will be undertaken:

i) Instituting efficient exchange of domestic products

- In Ethiopia commodity exchange is undertaken in 10 centers namely: Addis Ababa, Nazareth, Shashemene, Awasa, DireDawa, Bure; Nekemt, Jimma, Humera, Metemma mainly focused on six crops including teff, wheat, maize, sesame seed, haricot beans and coffee. The exchange is completed within six months period. Expansion activity will be undertaken based on studies;
- Export promotion will be made through undertaking domestic conference, exhibitions and trade fair. The promotion activity will be supported through posters, flyers, films and other dissemination mechanisms;
- Establishing close integration among producers, unions and facilitators, exporters, and officials; demand oriented production system will be promoted;
- Through the creation of forums for discussion of problems between suppliers and support giving offices. Joint solutions will be provided to common problems; and,
- Solutions to market problems will be thought by undertaking studies on problems faced in domestic markets.

ii) Marketing organization for domestic trade

- Producing and implementing guidelines for contract production and marketing;
- Coffee preparation industries will be supported to operate in full capacity; and,
- Expansion work will be undertaken to provide for transportation and storage warehouses of agricultural products as well as improve the provision for export animals waiting facilities. Also standards for facilities of marketing organizations will be prepared and implemented.

d) Quality Control and Standards of Agricultural Products

For efficient exchange of commodities between countries and within a country, the quality and standard of the product is an important element of trade exchange. Standards and technical laws are requirements that all products are expected to meet to be considered for export. Fulfilling standards of quality requirements will provide for augmenting the export capacity and strengthen the country's competitiveness. International standards stands as one important factor in strengthening the country's capacity to improve foreign trade, and thus in the area of quality and standards of export products. Several activities are envisaged to be concluded to augment the competitiveness of the country in the global market. The activities include:

- Improving the quality and agricultural products to supply export markets, improving existing standards and produce new ones, and ensure the introduction and control of proper observation of standards;
- Establishment of coffee and tea inspection and auction centers in major coffee growing *woredas*; and,
- Testing and setting standard services will be made for 1,226,000 tons.

e) Warehouse Services and Credit System

- During the next five years, in warehouse services and advance credit system the following will be undertaken: certification and work permit will be given to 25 warehouses covering seven different types of crops. This will increase the capacity of warehouse to 1,700,000 Qt. Two types of crops for which quality standard has been set and preparing standard of quality for additional 5 types of crops. Training in awareness will be given to 1,600 stakeholders;
- To increase the capacity of storages, six storage service advance credit facility implementation documents will be prepared. The task includes preparation of receipts for proclamation No. 372/1996; and,
- One quality control laboratory will be established.

f) Establishing Agricultural Marketing Information System

Currently agricultural marketing information is disseminated in a fragmented manner and is limited to few agricultural products, namely coffee and animal products. In the following years, agricultural marketing information system appropriate to the needs of users will be established, strengthened and relevant data will be collected, analyzed and disseminated to users in a sustainable manner.

g) Development of Agricultural Marketing Capacity

Following assessment of existing agricultural marketing capacity, sustainable agricultural marketing capacity will be developed. Capacity building activities at the level of program implementing offices will focus on major actors of marketing. Accordingly:

- Short-term training will be given to 1000 actors in marketing activities and federal and regional support offices on marketing concepts and practices;
- Agricultural marketing laws, regulations and directives will be reviewed and revised; and new ones will be produced with the participation of stakeholders and implemented;
- Five study tours will be organized and implemented for actors in marketing activities at federal level and at the level of regional supporting offices;
- Long-term training will be given in agricultural marketing to 10 federal and regional support giving experts;
- Ten seminars and workshops will be undertaken on opportunities and risks of agricultural marketing;
- Through the extension system, farmers will be given training to acquire knowledge and understanding about agricultural marketing; and,
- Varying measures will be taken to augment the participation of the actors in agricultural marketing.

h) Establishment of and Strengthening of Cooperatives

With regard to strengthening cooperatives, the following activities and targets are set for the coming five years:

- Close to 70 % of the people will be organized through service cooperatives organizations;
- Increase from 70% to 90% the share of the market by cooperative marketing organizations of agricultural inputs and increase their share of market of agricultural products from the current level of 10% to 60%;
- Increase the number of basic cooperative from the current level of 14,423 cooperatives to 24,677 cooperatives;
- Increase the number of unions from the current 105 to 646;
- Organize six cooperatives federations; in crops, coffee, saving and credits, milk and milk products, mining, and fruits and vegetables;
- Organize one cooperatives league;
- Organize 420 rural electrification services cooperatives to enable 1,260, 000 households or 6.3 million people to benefit from electric power services;
- Organize cooperatives among pastoral and semi-pastoral communities on the basis of natural endowment of resources available in the localities;
- Raise the membership of women from the current level of 13% to 30%;
- Increase job opportunity created through cooperative activities from the current level of 7,000 to 126,000;
- Organize programs on HIV/AIDS prepared at federal level to be undertaken for 30 minutes to 1 hour; encourage unions to be organized to contribute for 0.5 to 1% of their social fund to be allocated to members of their community living with HIV/AIDS;
- Organize savings and loans cooperatives organization in urban and rural areas of the country and increase the savings level from the current level of 630 million Birr to 1.2

billion Birr and there by augment the saving and investment capacity of the community;

- Through increased availability of loans to cooperatives (up to 14 billion), encourage cooperatives to increase production and productivity as well as help the development of agro processing services;
- Undertake execution and implementation capacity development, and skill improvement training will be given to 102,729 members of cooperative organization leadership and 50,000 employed staff. 4,000 members will receive training at first-degree level, 120,000 professionals will receive post-graduate degree level training and 10 professionals will pursue PhD program. Also 3,767 experts will receive job improvement training; and,
- Consultation conference will be conducted between the agency and regions at least once in six months to exchange experiences and improve implementation.

Through augmenting the ownership and information dissemination role of the cooperative organizations, efforts will be strengthened to ensure the sustainability of information flows.

On the basis of assessment study made on the resource required for the plan period (2005/06–2009/10), to implement the various programs articulated above in the agricultural and rural development sector (including food security), a total of 22.1 billion Birr is required. Of this amount, 19.9 billion Birr (90%) will be financed through resources allocated by the Government through the budget framework (from the treasury and external assistance and loans) and the remaining 2.2 billion Birr (10%) is assumed to be generated from the private sector and non-government organization as well as from the communities in the form of cash, material and labor. Out of the total finance required for the sector, 5.5 billion Birr (25%) is to be allocated for recurrent expenditure, while the remaining 16.5 billion Birr (75%) is assumed to be allocated for capital expenditure. Details on the projections of sectoral financial requirements are provided in Table 8.1 of Chapter VIII.

7.2 Education

7.2.1 Education Sector Policies and Strategies

Low educational quality, relevance, efficiency, equity, and low coverage were the features of Ethiopia education service before 1991/92. To change this situation, the Government launched the national Education and Training Policy in 1994. To implement this policy, the Education Sector Strategy was designed in 1994/95. The general objective of the policy was to produce skilled man power with the necessary quality and quantity to meet the national socio economic development requirement, to bring up citizens who understand, respect and defend the constitution, a citizen who respect democratic values and human rights moreover with good work culture and ethics.

The policy emphasizes on changing curriculum, preparation of learning material, giving due attention for career development of teachers and changing the organizational structure.

The Government of Ethiopia launched a twenty-year education sector indicative plan, to implement the 1994 national Education and Training Policy. The main goal of the plan is to improve educational quality, equity, and relevance with special emphasis on primary education for all by 2015. The first five year ESDP I as part of a twenty-year education sector indicative plan was designed and implemented. During ESDP I implementation period, remarkable progress has been achieved. ESDP II emanated from the technical, and organizational experience gained through the development and implementation of ESDP I and has been implemented since 2002/03.

7.2.2 Objectives and Goals of the ESDP III

The general objective of the ESDP III (2005/06-2009/10) is to achieve the MDGs and meet the objective of National Development Plan through supplying qualified trained work force with the necessary quantity and quality at all levels.

Depending on the implementation of ESDP II, the challenges expected to be faced to achieve the above major objectives of ESDP III include:

- Problems related with education and training quality and relevance;
- Problems related with education and training participation and equity;
- Education inefficiency;
- Problems associated with education and training management and implementation capacity;
- Resource shortage to access qualified education; and,
- The impact of HIV/AIDS on the teaching and learning process.

Therefore, the specific objective of the ESDP III is to:

- Ensure education and training quality and relevance;
- Lower education inefficiency;
- Prevent HIV/AIDS;
- Increase the participation in education and training and insure equity; and,
- Increase the participation of stakeholders.

Education sector goals for each level of education are indicated in the following subsections:

a) General Education Goals

- Provide education service for all children who are ready for schooling;
- Improve the career of teachers at all levels;
- Use all the necessary avenues to produce qualified and responsible citizens at all level;
- Use resources wisely to enhance efficiency;
- Increase community and private sector participation; and,
- Ensure education equity.

ESDP III annual targets for primary education (1-8) during the period of the PASDEP are depicted in Table 7.16. ESDP III annual targets for secondary education, technical and vocational education training, and higher education are depicted in Annex Table 7.2.

Table 7.16: Annual Targets During the Period of the PASDEP for Primary Education

Objective	Indicator	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
Increase primary education enrolment rate	Primary education 1 st cycle net enrolment rate	67.6	70.6	74.6	78.6	82.6	86.6
	Girls	65.1	68.3	72.3	76.3	80.3	84.3
	Boys	69.9	72.9	76.9	80.9	84.9	88.9
	Primary education 2 nd cycle net enrolment rate	33.9	39.9	45.8	51.8	57.8	63.8
	Girls	29.4	35.3	41.3	47.3	53.3	59.3
	Boys	38.3	44.0	50.0	56.0	62.0	68.0
Reduce dropout rate	Grade one dropout rate	22.4	19.1	15.9	12.7	9.5	6.3
Increase primary education completion rate	Completion rate for grade 5	57.4	78.4	77.8	88.7	121.1	136.6
	Completion rate for grade 8	34	39	42	45	58	63
Improve primary education pupil/teacher ratio	Primary education 1 st cycle (1-4)	71	69	65	61	58	54
	Primary education 2 nd cycle (5-8)	55	55	52	50	47	45
	Secondary education (9-12)	78	70	63	55	48	40
Improve text book supply on major subjects	Pupil/textbook ratio	2:1	1.5:1	1:1	1:1	1:1	1:1

b) TVET Goals

Activities to be undertaken along with annual targets for TVET include the following:

- Establish a system to improve the quality of TVET training;
- Provide formal and non-formal training programs depending on Occupational Standard and Occupational Training Standard system based on the need of trainees;
- Depending on the centralized occupational standard and occupational training standard system, build the capacity of regions training institutions to develop their own curriculum;
- Provide demand driven and relevant training; and,
- Introduce alternative models to finance TVET by the training institutions instead of solely relying on the Government (treasury source of financing).

c) Higher Education Goals

Key activities to be undertaken and targets during the PASDEP (ESDP III) period include:

- Produce competent, responsible, and higher-level skilled work force with the necessary quality and quantity to meet national socio-economic development requirements;
- Change administrative system of higher education institutions;
- Use cost-effective and cost-saving methods and render higher education institutions the source of finance; and,
- Meet the requirement of national skilled work force through providing quality training and render them the center of research undertakings (center of excellence).

d) Strategies Designed to Achieve ESDP III Goals

- Strengthen community and NGOs participation in the sector;
- Use alternative methods to implement the program in low cost school construction. These include construction of low cost classrooms and use them for first cycle primary education;
- To expand primary education coverage, increase the role of non-formal education and other alternatives;
- Design and implement policies that strengthen communities' participation in administration and financing of schools;
- Build the capacity of institutions, provide trainings to school managers, develop and implement logistic support systems, etc;
- Give additional responsibility for *woredas*/districts to administer primary and secondary school, this helps to easily manage the needs of the community, and it further increase accountability in providing effective and efficient education service;
- Emphasis is given to improve not only academic qualifications, but also the ethical values of teachers; and,
- Provide support to increase women education participation and to help children that have special need for education.

e) Program Description

i) Kindergarten (pre-school)

- Promote private, non-government organization, and the community to invest on pre-schooling sector;
- Improve the curriculum and set minimum quality standard; and,
- Supervise and follow up the activity.

ii) Primary education

- New schools will be built and additional classrooms constructed using local materials and labor;

- In pastoral and semi-agriculturalist areas, alternative basic education (ABE) program will be implemented;
- Multi-grade classroom teaching method will be practiced;
- Adult education programs will be designed and implemented to address access problems of over aged school population to enable them complete primary education in a short time; and,
- To manage inefficiency problem which include:
 - ✓ Continuous follow up and evaluation method will be strengthened;
 - ✓ Teaching strategy will be designed for over aged children;
 - ✓ Special support will be provided for those unable to get formal education; and,
 - ✓ Efforts will be exerted to reduce the number of shifts in primary education.

iii) Secondary education

- Quite a large number of classrooms will be constructed particularly in rural areas;
- Supply of teachers with the necessary quantity and quality will be improved;
- Textbooks will be printed and distributed to schools to attain a one-to-one student/textbook ratio by the end of the plan period;
- Cost sharing method will be practiced in secondary schools;
- Use education information technology for learning and teaching process;
- Provide gender sensitive teaching methods to increase girls participation;
- Counseling services and special support for female students will be provided;
- Free education will be provided to poor female students to continue their education; and,
- Incorporate cultural and economic issues of pastoral and semi-agriculturalist communities in the curriculum.

iv) Teachers' Training

- Pre-service and in-service training of teachers will be intensified;
- Discontinue providing food and accommodation services in colleges and universities to enhance their training capacity;
- Encourage female teachers to get enrolled in universities and colleges, make an effort to provide short-term trainings and to get in-service training;
- Upgrade the academic capacity of under-qualified teachers through summer and distance education program;
- Upgrade the capacity of alternative basic education teachers through in-service distance training and summer training program;
- Promote student-oriented education method, continuous evaluation method, cluster education method, etc. strengthen short in-service training and distance training;
- Render consistent teachers' training curriculum and pedagogical skills with the need and living condition of the community; and,

- Make private and government teachers training centers and colleges the source of qualified teachers.

v) Adult and non-formal education (NFE)

- Increase community, private sector, and NGOs participation in adult and non-formal education program;
- Professional assistance will be provided in preparation and supply of literacy curriculum guides, learning materials, etc;
- The curriculum will be designed based on the needs of learners/adults/ and the existing condition of the community; and,
- Standardize the non-formal education certification system with formal education.

vi) TVET

- Establishment of standardized testing and certifications system open to all graduates of government and private training centers;
- Improve quality and relevance of education through student-oriented training system;
- As education coverage increases in primary and secondary education, the need for training will also increase, to stabilize the training market, promote alternative modes such as cooperative and in-company training system;
- To build capacity of government and non-government training centers, support will be made based on a designed formality;
- TVET requires high cost, therefore alternative models of financing TVET will be introduced;
- To exchange experiences, communication net work will be established among training centers, employer organization, associations, industries, and community;
- Research will be conducted on TVET graduates training need, on employer revenue; on in-service action of graduates, etc. Study will be conducted in this regard;
- To narrow the gap between training need and training system consistency, continuous consultation forums will be prepared at national and regional level;
- To qualify TVET, the training will be supported by information communication technology;
- Upgrade TVET teachers in postgraduate and PhD level to enhance their capacity.
- Provide guidance and counseling service to encourage students especially girls to train in their areas of interest;
- Using local materials, demand oriented trainings will be provided for the pastoralist and semi agriculturalist areas; and
- To accelerate national economic development, relevant and qualified training system will be established.

vii) Higher education

- The capacity of the existing universities will be increased from 8,000 to 10, 000 students annually;

- 13 new higher education institutions, which will ultimately be upgraded to universities, will be established;
- The total annual intake of universities for a degree program is expected to reach 150,077 by the end of the plan period; and
- A number of measures will be undertaken to encourage private sector participation.

viii) Post graduate program

- To improve management capacity of higher education institutions, different training and counseling forums will be conducted; and,
- New training fields will be opened according to the national need for skilled workforce.

xi) Cross cutting issues that are included in the third ESFP III and expected to be implemented during the plan period include:

- Gender education;
- Civic and ethics education;
- HIV/AIDS education;
- Special need education;
- Education quality;
- Community participation; and,
- Decentralization and capacity building programs.

Cost and Financing

According to MDGs Needs Assessment Study, total cost of the ESDP III is estimated at 53.7 billion Birr of which 32.9 billion Birr (61%) is for capital expenditure while the remaining 20.8 billion Birr (39%) is for recurrent expenditure. Of this, 67% of the finance is covered by the Government (treasury, loan and aid) through the budget framework, the rest 33% is covered by other actors (private, NGOs and the community). The projected financing requirements for the PASDEP period is depicted in Table 8.1 of Chapter VIII.

7.3 Health

Under the PASDEP the Government will continue its emphasis of the last six years under the Health Sector Development Program (HSDP) I and II, and now extending into HSDP III, with a clear focus on poverty-related health conditions – communicable diseases such as HIV/AIDS, Tuberculosis, malaria and diarrhoea, and health problems that affect mothers and children. Efforts will be concentrated on rural areas and on extending services outwards from static facilities to reach villages and households. In addition, and most importantly, gender will be mainstreamed at all levels of the health system.

Main implementation modalities at this stage include: (i) the ***Health Services Extension Program***, which involves use of female workers to deliver 16 packages in four main areas i.e. hygiene and environmental sanitation, disease prevention and control, family health services,

and health education and communication on an outreach basis. The program has been piloted over the past two years, with early success, and is now being rolled out nationwide. (ii) The ***Accelerated Expansion of Primary Health Care Coverage***: this has already been developed and endorsed by the Government with a view to achieving universal coverage of primary health care to the rural population by 2008. A ***Health Care Financing Strategy***: this aims at increasing resource flows to the health sector, improving efficiency of resource utilization, and ensuring sustainability of financing to improve the coverage and quality of health service. ***The Health Sector Human Resource Development Plan***: MoH is in the process of finalizing the Human Resource Development Plan aimed at overcoming problems related to the absolute shortage, mal-distribution and productivity of the workforce. There are also important developments in related sectors that are key to achieving the desired health outcomes- especially in water supply and sanitation and hygiene, population, nutrition, and HIV/AIDS.

In order to achieve the goals and objectives of MDG and PASDEP, HSDP III has been designed from their perspective. Hence, based on the following National Health Policy direction, various health programs have been designed. These are outlined in the following sections.

7.3.1 National Health Policy and Strategy Direction

Under the National Health Policy and Strategy, the following specific measures/activities will be pursued:

- Vigorous implementation of the Health Service Extension Program for the effective prevention and control of communicable diseases and promotion of healthy living;
- Enhancing the capacity of district health offices in the expansion of Primary Health Care (PHC) facilities and services;
- Improving the quality of health care through provision of adequate resources, implementation of a two way referral system, enhancing the capacity of Health Extension Workers (HEWs) for the detection, referral and follow-up of patients, and strengthen secondary and tertiary hospitals, and referral laboratories;
- Improving the number, skills, distribution and management of health workers;
- Ensuring the planned training of health managers in adequate number and appropriate knowledge and skills;
- Mobilizing adequate financial resources, ensure efficient utilization, and strengthen sustainable financing mechanisms for the health sector;
- Promoting harmonization towards one plan, one budget, and one report;
- Improving the health information system and the capacity for effective monitoring and evaluation;
- Ensuring full community participation in the planning, implementation, monitoring and evaluation of health care;
- Promoting inter-sectoral collaboration and coordinate the activities of the public sector, private sector, international organizations and NGOs in health interventions; and,

- Implementation of the recently developed National Nutrition Strategy and Action Plan.

Of particular importance, given the fact that health outcomes depend on so many factors, is the inter-sectoral collaboration in crosscutting areas such as water supply and sanitation, education, gender, population, and food supply. Also, given the partnership and networking between the Government and NGOs and civil society and private sector organizations engaged in health related activities is becoming increasingly important in enhancing implementation of the program.

Based on the above policy direction, the following specific program steps are envisaged:

The Health Sector Extension Program (HSEP) is to be implemented with the following modalities: rapid training of health extension workers, two per *kebele*, and construction and equipping of health posts (one per *kebele*) through the Accelerated Expansion of PHC facilities. These health extension workers will offer key health services such as personal and environmental hygiene, child immunization and family planning, to each *kebele* (5,000 inhabitants). A community promotion program centered around volunteer/private sector community promoters/TBAs working under the guidance of the health extension worker will provide support to households for behavioral change (e.g. breast feeding, complementary feeding, immunization, use of bed nets, clean delivery etc). The previous frontline health workers (Community Health Agents (CHAs), TBAs etc) will be incorporated into the system in this capacity. Ethiopia has an extensive experience in the utilization of community health workers in the past. These cadres of workers have shown enormous potential when supported by frequent supervision and provision of appropriate incentives. It is, therefore, important that these elements be well integrated in the expansion under PASDEP.

A program strengthening the quality of and demand for clinical care particularly treatment of diarrhea, malaria in children, assisted delivery, early referral for mothers and children with danger signs, HIV testing and counseling as well as prevention of mother to child transmission.

Accelerated Expansion of Primary Health Care Coverage: The program proposes a faster rate of establishment of primary health care facilities, as an essential institutional framework to scale up PHC and for the successful implementation of HSEP, to reach the target of one low-level health facility within 10 km for almost all of the population by 2010. Accordingly, 12,249 health posts and 563 health stations will be constructed and 2,167 clinics upgraded to the level of health stations and also fully equipping and staffing of facilities in order to support the provision of preventive and promotive health service through the HSEP.

Nutrition: As reported in the findings of the WMSs in Chapter II, malnutrition remains a widespread problem in Ethiopia, despite the encouraging improvements over the past 8 years as recorded in the survey results. This is in part due to insufficient food production, drought, and low incomes, as well as the effects of lack of knowledge and diet mix. Furthermore, there is a vicious cycle of ill-health and malnutrition, especially among children: poor health such as intestinal parasites and diarrhoeal diseases limit the retention of nutrients, while

malnutrition increases the susceptibility of children (and others) to disease. Recognizing the importance of nutrition, a National Nutrition Strategy and Action Plan have been developed.

A concerted effort will be made to improve the nutritional status of under-5 children during PASDEP. The zero-draft nutrition strategy document has been completed, and a coordination agency established. In the first year of PASDEP implementation, arrangements are being developed (including a major workshop on the draft strategy). Pilot nutrition elements of the Food Security Program are being developed in 2-3 regions, linked to the community-based outreach nutrition elements of the health extension program.

National Child Survival Strategy (NCSS): The national policy framework that guides programming in the health sector includes the NCSS that has set the overall objective of reducing under-five mortality to 67/1,000 by 2015 to achieve the MDG. The strategy addresses the major causes of child mortality that account for 90% of under-five deaths i.e. pneumonia, neonatal conditions, malaria, diarrhea, measles, malnutrition and HIV/AIDS.

The Health Care Financing Strategy: The strategy proposes alternative financing methods, mechanisms of resource mobilization, efficient utilization, and ensuring sustainability. The Health Care Financing Strategy and the subsidiary guidelines that have been produced to realize the execution of the strategy will be vigorously implemented during the period of HSDP III, including:

- To increase over all health expenditures per capita from US\$5.6 to US\$9.6;
- To ensure retention and utilization of 100% of revenue generated at hospitals and health centers;
- To expand special pharmacies to cover 100% of public hospitals from the current level of 82% and 100% of health centers from the current level of 58%; and,
- Encourage establishment of community health care insurance schemes in 50% of *woredas* of the country.

Implementing the Health Human Resource Development Plan: The plan has looked into the diverse human resource problems in the sector and particularly to the absolute shortage, mal-distribution and low productivity of the workforce.

Strengthen Health Management, Management Information Systems and Monitoring and Evaluation: To implement the five Civil Service Reform Programs in the health sector and to ensure efficient, effective, transparent, accountable and ethical civil service at all levels of the health system the following actions/measures will be undertaken:

- To staff all *woreda* Health Offices and Regional Health Bureaus by health managers with appropriate professional knowledge and skills that are governed by professional ethics and discipline at all levels of the health service structure;
- Establish health management boards/committees and health councils at all levels of the health system;
- To achieve 80% completeness and timely submission of routine health and administrative reports;

- To achieve 75% of evidence based planning;
- To develop and implement comprehensive and integrated M&E guideline at all levels of the health system;
- To continue to conduct regular joint annual reviews and donor consultative meetings; and,
- To harmonize the donor-government reporting cycles and monitoring and evaluation system.

Table 7.17: Selected Intermediate Management-Related Targets

Indicator	Current Status (2003/04)	Target (2009/10)
HEWs to population ratio	1:25,000	1:2,500
The ratio of midwives to women of reproductive age group	1:13,388	1:6,759
Availability of essential drugs in public health facilities (%)	75	100
Percentage of imported and locally produced drugs with safety, efficacy and quality investigated (%)	40	100
Percentage of expired drugs in public healthy facilities (%)	8	1
Proportion of health institutions that practice rational use of drugs (%)	25	100
Inspection coverage of drug trading facilities (%)	20	100

Goals of HSDP III

Despite progress to date, coverage of the system remains inadequate, and the quality of services available, especially in rural areas, is variable. The focus under PASDEP will continue to be towards primary health care and preventative services; with a big focus on extending these services to those who have not been reached, and improving the effectiveness of services, especially addressing difficulties in staffing and the flow of drugs. The major outcome objectives during the program period include:

- To cover all rural *kebeles* with the HSEP to achieve universal primary health care coverage by year 2008;
- To reduce maternal mortality ratio from 871/100,000 to 600 per 100,000 live births by the end of 2009/10;
- To reduce under-five mortality from 123 to 85 per 1,000 population, and the infant mortality rate from 77 to 45 per 1,000 population by the end of 2009/10;
- To reduce total fertility rate from 5.4 to 4;
- To reduce the adult incidence of HIV from 0.68 to 0.65 and maintain the prevalence of HIV at 4.4%;
- To reduce morbidity attributed to malaria from 22% to 10%;
- To reduce the case fatality rate of malaria in age groups 5 years and above from 4.5% to 2% and the rate in under-5 children from 5% to 2%; and
- To reduce mortality attributed to TB from 7% to 4% of all treated cases.

The major output targets, to achieve these outcomes, are depicted in Table 6.18 below.

Table 7.18: Selected output Targets under PASDEP

Indicator	Current Status (2004/05)	Target (2009/10)
CPR (%)	15	60
Deliveries attended by skilled attendants (%)	9	32
DPT3 coverage (%)	70	80
Proportion of households with 2 bed nets, properly utilized (%)	1	100
Out-patient visits per capita	0.3	0.6

The program builds on a number of established strengths: the relevant strategies, policies, and guidelines have been developed, and there is broad agreement on them –especially on Ethiopia’s emphasis on primary health care and rural areas. Implementation strategies have been adopted that are universally thought to be cost-effective, such as the Roll Back Malaria initiative, Making Pregnancy Safe, Integrated Management of Childhood Illnesses, and Daily Observed Therapy Short Course (DOTS). The targets have been aligned with the MDGs.

Furthermore, the health system is built on a decentralized model, with a formal organizational structure that addresses key interventions at all levels. An essential package of care has been defined and agreed upon, and implementation of HSDP III has successfully commenced. An autonomous institution has been set up to regulate drugs, and a department to administer and procure drugs and medical supplies. The capacity of health professionals training institutions has been increased, and a Human Resource Development Plan adopted; while the civil service reform program has begun to be implemented to improve service delivery in the health sector. Finally, there has been considerable success in mobilizing external resources and technical assistance, and in establishing a governance structure for the sector program, with regular annual reviews.

Table 7.19 Highlights of HIV/AIDS and Maternal Health Care Service Goals

Activity direction	Goals	Implementation Strategies	Means of Strengthening Health System
Maternal health	<ul style="list-style-type: none"> • Increase coverage of contraceptive prevalence rate to 60% • Reduce maternal mortality ratio to 600/100,000 	<ul style="list-style-type: none"> • Assign 30,000 health extension agents • Establish 13,635 health posts 	Establish data base systems
Child health	<ul style="list-style-type: none"> • Reduce infant mortality rate to 45/1,000 • Reduce under-five mortality rate to 85/1,000 	<ul style="list-style-type: none"> • Establish 3,200 health stations • Assign 5,000 health officers 	<ul style="list-style-type: none"> • Establish drugs and other inputs supply systems

HIV/AIDS and tuberculosis	<ul style="list-style-type: none"> • Increase health coverage • Provide ART for 263,000 people living with HIV/AIDS 	<ul style="list-style-type: none"> • Train Doctors • Improve the quality of health delivery services 	<ul style="list-style-type: none"> • Establish financial systems
Malaria	<ul style="list-style-type: none"> • Buying and distributing 20 million bed nets 		<ul style="list-style-type: none"> • Establish harmonization systems

Program Cost and Financing for the Health Sector (Excluding HIV/AIDS)

The total cost requirement for the implementation of the health sector development program is estimated to be 34.9 billion Birr during the plan period. Of the total cost requirement, 55% (19 billion Birr) will be allocated (allotted) for recurrent budget and the remaining 45% (15.8 billion Birr) for capital expenditure purposes. With regard to the source of finance, 44% will be covered from National Budget Framework of the Government and the rest 56% from other actors such as communities, NGOs and private sector. Detail information is indicated on Table 8.1 of Chapter VIII.

7.4 HIV/AIDS

While rates of infection in Ethiopia are lower than elsewhere in Africa, HIV/AIDS has now established itself as a serious threat to the overall socio-economic development of the country. The current national adult prevalence rate is estimated at 4.4 % (Urban 12.6% and rural 2.6%). There are an estimated 1.5 million people living with HIV/AIDS in the country. Out of these 817,000 are women and 96,000 are children below the age of 15. The number of orphaned children due to AIDS is estimated at 537, 000. Out of these, 56% are below the age of 10. The number of deaths due to AIDS in 2005 is estimated at 134,124.

Trend analysis of HIV/AIDS prevalence indicates that the urban epidemic appears to have leveled off at high prevalence in the past years while the rural epidemic gradually increases, with a reduced rate of progression, resulting in a slowly growing overall prevalence. A number of factors have helped in substantiating this apparent increase, including a significant increase in the number of surveillance sites in rural Ethiopia, and a change in the software and methodology used to analyze surveillance data. As a result, it is difficult to draw conclusions comparing current results with earlier measurements.

Some of the major underlying factors that fuel the spread of the disease include poverty, low level of literacy, stigma and discrimination, gender disparities and the existence of commercial sex, population movement including rural/urban migration, and harmful traditional practices. HIV/AIDS in turn exacerbates the poverty situation, thus creating the vicious cycle of aggravating the individual and community vulnerability to infections.

Cognizant of the potentially huge devastating impact of the HIV/AIDS epidemic, the Government's response was initiated as early as 1985. The national AIDS Policy was issued in 1998 and the Strategic Framework for the National Response updated in 2002. Both documents still serve as the basis for the multi-sectoral national response.

The National AIDS Council (NAC) chaired by the President of the Federal Democratic Republic of Ethiopia (FDRE) was established in 2000. Similar structures were formed in all the regional states and down to the *kebele* level. In 2002, the HIV/AIDS Prevention and Control Office (HAPCO) was established to coordinate and spearhead the multi-sectoral national response.

Some of the major achievements of the national response to date include:

- Expanded coverage of services (more than 300 *woredas* out of the 550 covered);
- Increased levels of awareness and positive trends in behavioral change;
- Increased demand for distribution and utilization of condoms;
- The number of voluntary counseling and testing (VCT) sites and the demand for the service has increased;
- Prevention of Mother-to-Child Transmission (PMTCT) and ART services have been initiated and are expanding;
- Home-based care services have been initiated and are expanding;
- Care and support for orphans and vulnerable children (OVC) expanding, 80,000 have received support in the form of food, clothing, school fees, and/or counseling in 2004/05;
- Positive trends in the reduction of stigma and discrimination; and,
- Increased advocacy for policy and legal issues regarding the rights of People Living With HIV/AIDS (PLWHA).

In addition, community participation and ownership of the response is emerging, and the capacity of coordinating bodies, NGOs implementing partners has been strengthened at all levels.

Significant progress has been made in the past two years in initiating the National Biological Survey, which provides the essential data needed to refine Ethiopia's AIDS strategy. In addition, HAPCO has disseminated a comprehensive HIV/AIDS M&E framework; and Communication Framework Guidelines, which outline how to communicate with different, target groups about HIV/AIDS information, knowledge and issues. In addition, a behavioral surveillance survey has recently been undertaken, this is a nationwide study on the sexual behavior of different target groups, the first of its kind, which is essential to refining HIV/AIDS programs. The report showed awareness level is more than 90%, while behavioral change is still low. In addition, the National HIV/AIDS Partnership Forum has been established, which brings together government offices, faith-based organizations, NGOs, private organizations, employers' federation, trade unions, mass media, associations of youth, women and donors, to avoid duplication of efforts, effective utilization of manpower and other resources, share experiences among partners, and to prepare a unified plan.

Planned targets under SDPRP for HIV Prevalence among 15-24 pregnant women and the proportion of HIV-positive pregnant women from antenatal clinics receiving ART have been met or surpassed. Targets were mostly met in condom distribution and establishing PMCT and Voluntary Counseling and Testing (VCT) Centers, and for strengthening blood banks.

The number of people demanding and voluntarily counseling and testing is steadily growing. More and more people are openly disclosing their sero-status, which is a very positive trend. The increasing demand for VCT and care and support services is causing pressure on the health service system.

The issue of OVC is an increasing area of concern. OVC programming has been fragmented among many actors. However, a number of initiatives are currently underway to improve the coverage and quality of services. These include development of home-based care and support guidelines, and the establishment of a National OVC Taskforce, which is developing a draft National Action Plan. It is assumed that some 20% of the total orphan population will require care and support services in the form of schooling, shelter, nutrition, counseling and clothing at any given time during the PASDEP period.

Despite these successes, the implementation process faces limitations. The main ones include low implementation capacity, including in the health service, as well as in communities and the NGO sector; a lack of focus on priority intervention areas and targeted, sustainable programs; the low level of coverage of prevention, care and support programs such as VCT, ART and PMTCT; and dependency on external inputs combined with, at times, problems of coordination, duplication of effort and inappropriate use resources. Partly as a result, financial disbursement and utilization are still below targets.

Major Strategies in the Implementation of HIV/AIDS Programs

Strategies to implement HIV/AIDS programs and achieve targets set for the PASDEP period include the following:

Capacity Building

i) Health sector capacity building

- Construct and upgrade health institutions with emphasis on health posts and health centers;
- Furnish all health care facilities with improved diagnostic, medical equipment and supplies;
- Improve the quality and increase uptake of health care training institutions; and,
- Train health care workers in the care, treatment and management, of HIV/AIDS.

ii) Education sector capacity Building

- Integrate HIV/AIDS education into the curriculum at all levels of schooling.

iii) Community capacity building

- Build the executive and managerial capacity of community and association leaders.

iv) Capacity building of other implementing partners

- Improve knowledge, attitude and practice as well as managerial capacity; and,
- Promote involvement, ownership and strengthen partnership forum.

v) Capacity building of the legal & human rights

- Review and update policies, legislations and guidelines with participation of PLWHA and their families through organizing PLWHA into association.

vi) Capacity building of HAPCO

- Strengthening the capacity of HAPCOs to ensure efficient coordination, M&E and resource mobilization through creating transparency, accountability and efficient resource management.

Social Mobilization and Community Empowerment:

- This has to do with ensuring community ownership of HIV/AIDS programs by creating sense of urgency in all leaders and community organizations to take HIV/AIDS as social and development agenda and reinforce relevant community bylaws and resolutions.

Integration with Health Programs:

- Establishment and ensuring the availability of the standardized minimum essential packages of HIV/AIDS services in all primary health care facilities, institute efficient and effective referral services including community based health care system;
- Expanding and strengthening blood banks in both public and private health facilities; and,
- Establish a system of regular monitoring and supervision to ensure the quality of blood transfusion and tissue transplant services.

Leadership and Mainstreaming

- Ensure that leadership at all levels sustains HIV/AIDS as a priority development and emergency agenda through expanded advocacy and introducing accountability and reinforcing mechanisms.

Coordination and Networking

- Promoting decentralized decision making and coordination, developing net working guidelines and directories to ensure timely and regular review and follow up mechanisms by HIV/AIDS councils and committees at different levels and create consultation and partnership forum; and,
- Mainstream HIV/AIDS prevention and control efforts into the core programs of all public, non- public and private development partners through promoting the involvement and ownership of the community and using own resources (sectors) and monitoring and evaluating HIV/AIDS sector specific strategic plans and performance.

Special Target Groups

- Reduce vulnerability to HIV infection among the targeted groups like commercial sex workers, truckers, migrant laborers, uniformed people, teachers, students and out of school youth through promoting VCT and others by providing user-friendly reproductive health and Sexually Transmitted Infections (STI) services, enhancing bargaining and negotiations skills for safe sex where applicable;
- Providing safe and alternative, vocational skill training for income generating and employment opportunities where applicable, strengthening and expanding school anti-AIDS clubs and mini medias, Integrating HIV/AIDS in life skill education and basic curriculum, developing youth centers and entertainment resorts & Organizing the youth on voluntary basis and provide peer education; and,
- Promoting care within the family and mobilize the community to address and accommodate the issue of PLWHA/OVC through traditional and extended family mechanisms, providing counseling service, legal advice and protection to PLWHA/OVC, providing access to basic health, education and other social services to PLWHA/OVC, developing acceptable social security models towards the special needs of PLWHA/OVC & mobilizing all stakeholders to address the needs of PLWHA/OVC in a sustainable manner.

Programs planned for the PASDEP period include the following:

- Mainstreaming of HIV/AIDS programs in all government and non-government sectors;
- A major mass media and community mobilization campaign, including focuses on in-school and out-of-school youth, and workplace interventions. The regions have made considerable investment in developing school-based HIV/AIDS prevention and awareness programs, and these show great promise if effectively implemented during the PASDEP period;

- Enhance social marketing of condoms, with an objective of access for all sexually active persons, and 60% use coverage by 2009/10 (the level considered satisfactory for effective HIV prevention);
- Expansion and upgrading of VCTs, with VCTs integrated into all health centers, and training of more counselors and nurses;
- Expansion of programs to prevent mother-to-child transmission, with a target of 50% of HIV-positive mothers and their infants to provide complete course of ART by 2009/10;
- Improved blood safety, with expansion of blood banks, equipment, and reagents, and supply of basic protection materials and training to all health care providers and traditional birth attendants;
- Increased palliative care and provision of ART, with a target of giving proper palliative care to those who reach severe stage and are bedridden; and expanded ART provision (with a target of 70% by 2009/10) and training of health care staffing provision of ART;
- Improved home-based care, with a target of reaching 50% of PLWHA and other support for persons living with AIDS, including help with income-generating activities;
- Improving nutrition, as an important way of increasing the longevity and quality of life of people infected by the virus, and nutritional issues need to be given adequate attention if the treatment is to be effective; and,
- Providing material support to orphans and vulnerable children. The ratio of school attendance among orphans is targeted to reach 80% by 2009/10.

These will all be complemented through on-going efforts to strengthen management, capacity and monitoring and evaluation; and improve coordination between offices, implementing partners and donors at all levels. There will also be a push to community empowerment and strengthening Community Based Organizations (CBOs) such as *Idirs* and *Mahibers* for sustained care and support services to reduce dependency on external resources. Forging effective coordination of multiple agencies dealing with HIV/AIDS is particularly important.

Table 7.20: HIV/AIDS Major Targets for the PASDEP Period

Indicators	Targets					
	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
Prevalence rate among 15-24 years old pregnant women	8.6	8.6	8.6	8.6	8.4	8.4
Percentage of HIV positive pregnant women receiving complete course of ART	42	42	44	46	48	50
Percentage of people aged 15-24 years reporting the use of condom during last sexual intercourse with non regular partners	-	45	47	50	55	60
Percentage of people with advanced HIV receiving ART	10	10	30	50	60	70
Ratio of current school attendance among orphans to that of non orphans age 10-14	-	55	60	70	80	80
Percentage of annual government budget allocated for HIV/AIDS	-	1.5	1.6	1.8	2	2
Percentage of institutions (state & non state) having HIV/AIDS work place policies and strategies	-	15	20	40	60	80

Table 7.21: HIV/AIDS Targets for the PASDEP Period by Major Output

Major Outputs	Targets				
	2005/06	2006/07	2007/08	2008/09	2009/10
Sexually active population using condoms	1,846,000	3,790,000	5,800,000	7,340,000	8,000,000
People with STI cases treated	27,700	470,000	780,000	1,200,000	1,500,000
People counseled and tested	1,200,000	2,000,000	2,800,000	3,500,000	4,200,000
Mothers/infants who get PMTCT services	3,000	8,000	11,000	15,000	20,000
People receiving blood transfusion	57,000	78,300	88,000	97,800	107,600
No. of PLWHA accessing ART	50,000	150,000	180,000	210,000	263,000
No. of OVC accessed with support	145,000	200,000	250,000	300,000	350,000
Care & support service for PLWHA	45,000	60,000	80,000	100,000	120,000

Cost and Financing

The total cost requirement for the implementation of HIV/AIDS program is estimated to be 6.2 billion Birr during the plan period. Of which 91% (5.6 billion Birr) will be allocated (allotted) for capital expenditure and the remaining 9% (0.6 billion Birr) for recurrent budget purposes. With regard to the source of finance, 23% will be covered through the National Budget Framework of the Government and the residual 77% is expected to be financed through NGOs, communities and other concerned bodies. The annual financial requirement for HIV/AIDS programs is indicated on Table 8.1 of Chapter VIII.

7.5 Infrastructure

7.5.1 Water Resources, Water Supply, and Sanitation

Ethiopia possesses substantial untapped water resources that could play significant role in reducing poverty and accelerating growth, if utilized adequately. It has 12 major river basins and 12 large lakes. The total annual surface runoff is estimated to be in the order of 122 billion m³, and there is a further estimated 2.6 billion m³ of usable ground water. Various efforts have been made to develop Ethiopia's water resource to increase its contribution to the national economy. However, mainly due to the uneven distribution of the resources and limitations of financial and technical inputs, only limited progress has been made so far.

Recently greater efforts have been made to enhance the management of the sector and its contribution to socio-economic development. Especially during the last 3 years, the first phase of Sustainable Development and Poverty Reduction Program (SDPRP) was formulated and implemented within the frameworks of the national Water Resources Management Policy, Water Sector Strategy and Water Sector Development Program (WSDP). During this period, significant steps have been taken towards improving overall water resource management, including conclusion of the Nile Basin Initiative. Some 90 urban water supply systems were constructed or rehabilitated, and about 160,000 village wells or other rural systems were provided, raising average access to rural water supply from 24% in 1999/2000 to 34.5% by the end of 2004/05.

The program for the next five years is designed to build on the basis of these successes, and the lessons learned; to carry forward the sector policy and strategy developed during the SDPRP, and the decision to accelerate implementation to achieve the MDGs. It is important to recognize that water resource management refers not only to water for all purposes, including for power and irrigation, and husbanding of the nations water resources in their entirety. It is also important to recognize that this implies the need for substantial collaboration across agencies. A recent model is the Nile Basin Initiative, under which considerable movement is expected during the PASDEP period in terms of: (i) implementation of a watershed development program, (ii) implementation of irrigation and drainage projects, and (iii) putting in place flood preparedness and early warning systems around Lake Tana.

Water Sector Strategy During PASDEP

The main elements of the overall water sector strategy are to:

- Provide access to all of the population with clean potable water over the coming seven years;
- Promote enhanced irrigation development in an integrated manner to contribute to economic growth and alleviation of poverty and food insecurity;
- Emphasize and promote multipurpose development of water resources wherever applicable;

- Build capacity at different levels, particularly at sub-national level where actual implementation is taking place;
- Focus on low-cost, affordable, and labor-intensive technologies;
- Improve sanitation outcomes; and
- Focus on gender consideration while designing projects and programs; and also provide high participation opportunities for females to benefit from construction works.

Despite the successes there still remain challenges. Most notable among these are ensuring the ongoing operations and maintenance of rural water supply schemes, and establishing the financial viability of urban systems. The other major issue confronting Ethiopia is how to move beyond the very low level of sanitation coverage, described in the findings of the WMS in Chapter II.

To address the problem of operation and maintenance, there is an increasing emphasis on ensuring that appropriate community management structures are in place for routine operations, and small-scale community financing mechanisms, to raise the funds for maintenance. The goal during PASDEP is to reduce the share of mal-functioning rural systems from 30% in 2005/06 to 10% by 2010. With respect to financing of urban schemes – the challenge is to make sure that operating costs are covered without rural dwellers cross-subsidizing urban dwellers, or excluding the poor from service; and to raise the large amounts of finance necessary for longer term expansion. Increasingly systems are being managed on the basis of semi-commercial Water Boards, with financial structures and tariffs designed to increase long-term sustainability, although it is realized that public and donor financing for major capital investments is going to be needed for some time to come.

The target during the PASDEP is to raise the rural population with access to potable water within 1.5 km from 44% to 80% and urban population from 80.6% to 92.5% within 0.5 km by the end of 2009/10. In addition, irrigation coverage is planned to be raised from the current 5% to 8% by the end of the plan period. To achieve this, the following new and rehabilitation works will be carried out during the program period: study and design of 636 towns' schemes, construction works for 457 towns and rehabilitation works for 321 towns.

Regarding rural water supply, construction of 2,135 deep wells, 14,910 shallow boreholes, and 77,370 hands dug wells, and about 13,900 spring developments will be undertaken.

Finally, with respect to sanitation, PASDEP will see a major program to promote and support the use of latrines – including through the Health Extension Program efforts described earlier – with a target of increasing rural coverage from 17.5% to 79.8%, and urban sanitation coverage from 50% to 89.4% of the population.

Efforts will also be geared towards improving overall water resource management, including the establishment and rehabilitation of hydrological and meteorological stations, completing the on-going Ganale-Dawa and Awash River basin master plan studies and conducting two new ones, for the Rift Valley Lakes and Denkel areas, and conducting watershed

management studies under the Nile Basin Initiative. Institutionally, Basin Development Authorities will be established (some of them in progress), and capacity strengthened through training and better equipping the Ministry of Water Resources and other institutions involved in water resource development -related activities.

Finally, strengthening the information base in the sector is a priority, and a monitoring and evaluation system, and water supply Management Information System will be established during the first years of PASDEP, and annual reports produced thereafter.

Table 7.22: Water Supply Indicators and Targets for the PASDEP Period

Indicator	2005/06	2006/07	2007/08	2008/09	2009/10
Supply of clean water (% of population)	51.5	60.4	68.8	76.8	84.5
Percentage of rural population with access to potable water within 1.5 km	44	53	62	71	80
Percentage of urban population with access to potable water within 0.5 km	80.6	83.5	86.1	89.2	92.5
Area developed under medium and large scale irrigation (hectare)	75,550	116,432	63,088	43,965	23,645
Improved operation and maintenance (% of malfunctioning rural water schemes)	30	25	20	15	10

Partly, irrigation programs are discussed in the agricultural and natural resource management sections. With regard to large and medium scale irrigation, in total 39 significant irrigation projects are planned to be implemented during the PASDEP period, some of the largest being the Anger and Negesso projects in Oromia, the Humera project in Tigray, the Kesem Tendaho project in Afar, the Upper Beles project in Benishangul-Gumuz, and the Ilo-Uen Buldoho project in Somal region.

Costs and Financing

This program will obviously be expensive. The total cost requirements for the implementation of potable water supply and sanitation programs are estimated to be 15.6 billion Birr during plan period. Of which 77% (12 billion Birr) coverage is expected to come from public sources through the budget framework of the Government and the remaining 23% (3.6 billion Birr) from non non-public bodies such as private sector, NGOs and communities contributions. With regard to irrigation development programs, the total cost requirement is projected at about 21 billion Birr for the plan period. Of which 92% (19.1 billion Birr) will be covered from the public through National Budget Framework of the

Government and the remaining 8% (1.9 billion Birr) is expected to come from non-public bodies. The annual cost requirements of the sector during the PASDEP period is shown on Table 8.1 of Chapter VIII.

7.5.2 Roads and Transport

In the early 1990s, Ethiopia's classified road network was limited to about 23,000 km, of which about 75% was rated as in poor condition. Faced with this situation, the Government gave greater emphasis to improving the main road network and extending the regional network in order to meet the socio-economic development needs of the country. Consequently, the first phase Road Sector Development Program (RSDP) was launched in 1997.

The first phase of the Program (1997-2002) was a culmination of the Government's effort, with significant support from the donor community, to create adequate capacity in the road sub-sector to facilitate and hasten the economic recovery process and restore the essential road networks to an acceptable condition. The Program covered measures aimed at (i) creating a conducive atmosphere in the road sector through introducing a series of policy and institutional reforms, and (ii) rehabilitating critical roads that have been identified as major impediments towards the attainment of the objectives of the Economic Recovery Program. In this regard, the rehabilitation of trunk roads and upgrading of some link roads have been accorded highest priority as they had proved to be a major constraint in the evacuation of crops, the delivery of agricultural inputs, and access to ports.

The second phase of the RSDP launched in March 2003, is still on going. In this Program, the Government has focused on network expansion, particularly the upgrading and construction of link roads to specifically address the deficiencies in access to potentially rich agricultural areas and mobility in rural areas as part of a broad-based rural development strategy through the Ethiopian Rural Travel and Transport Program (ERTTP) to be discussed subsequently.

The third phase of RSDP has now been prepared in the context of the Government's PASDEP. The Road Infrastructure Needs Assessment for the MDGs (October 2004) is the basis for preparing the RSDP under the PASDEP. However, the PASDEP only constitutes about 40% of the costs under Plan A of the Needs Assessment for road sector calculated for the next ten years. Nonetheless, it represents three times the size of what was planned in the RSDP I. It is expected that such a huge investment will dramatically improve the classified road network connecting different regions of the country as well as low class roads interconnecting rural villages through the ERTTP.

Impact of Road Investment on Poverty Reduction

The Ethiopian economy is characterized by widespread poverty, rugged terrain, skewed distribution of population and inadequate road network and transport services. This has resulted in weak spatial integration, predominance of rural settlements in isolation from one another and low economic activity. All these together have constrained the growth process and compounded the poverty problem, making it a vicious circle. It needs to be recognized

that as important as the existence of roads, the transport services operating on them are even more important - their reliability, their cost, and their efficiency. As noted in the findings of the WMSs in Chapter II, in many areas of Ethiopia people still do not have access to transport services. The reasons have to do with a host of factors including limited purchasing power and lack of effective demand; lack of capital (skills and financing) to operate services, and further work on understanding barriers to the provision of transport services is as important as construction of new roads. The private sector has highlighted the high cost of surface transport as a major concern during consultations on the PASDEP. The responsible government ministry has acknowledged this, and has proposed to carry out a study on the high costs of transport, their determinants, and measures to reduce them.

While it is difficult to directly measure the poverty impact of roads, it is widely agreed that road improvement has the potential to enhance household welfare, not only through increased use of transport services, *per se*, but through improving the quality and security of access to work, markets and services and through release of scarce household resources for consumption and production. In this regard, the ERA had launched a study on the Poverty Impact of Transport Operations on selected corridors in 2004. The objective of the study is to assess the welfare impacts of transport on the communities living in its influence area. The study was aimed at assessing both cross-sectional analysis (i.e. by making a comparison of different locations with different degrees of accessibility), and using a historical ‘before’ and ‘after’ analysis. An initial database has been established, and confirmed a number of outcomes/findings on the poverty dimensions in the study areas:

- Rural communities are isolated for significant portions of the year as they lack access to reliable all-weather roads. This limitation indirectly affects their productive time and the sale proceeds of their agricultural produce;
- The majority of journeys are on foot, involves an average distance, one way, of 5 to 6 km and is time consuming (2-3 hrs). They typically occur for production or subsistence needs, such as collecting water and fuel, marketing of produce and making purchases, and for livelihood strategies, such as accessing markets, health care facilities and schools;
- Farmers sell their produce in small lots in local markets at low prices and buy goods (other than agricultural products) at high prices;
- Motor transport operations are mainly confined to a few inter-urban roads/routes, the service frequency is low and operating cost is high;
- Walking and non-motorized transport (head loading, back loading and animal modes) predominate the transport scene in rural areas;
- The transport burden for many domestic tasks tends to fall disproportionately on women, especially for domestic chores, shopping/marketing tasks.

The findings have been taken into account in formulating RSDP III and hence in the PASDEP. As a follow up to the poverty impact study, the ERA has launched the ‘*Transport and Poverty Observatory: A Yearly Customary Assessment*’, to monitor the poverty-reducing impacts of road investments at local community and at household level. At the same time, a Poverty Reduction/Transport Strategy Review (PRTSR) has commenced under the auspices of the SSA Transport Policy Program. The goal of this Review process is the ‘anchoring’ of

transport policies and strategies in national strategies for poverty reduction. As a first step, a steering group (comprising of representatives from transport services providers and consumers, civil society, pertinent federal institutions) has been established, the leading role being played by ERA of the Ministry of Works and Urban Development (MWUD).

In contributing to growth and poverty-reduction, the role of international transport in lowering the costs of imports, and increasing the value of exports, is equally important as domestic transport.

In an effort to clearly define the future development of the existing Ethio-Djibouti Railway (CDE) Organization, several studies were conducted. Based on the findings and recommendations of these studies, the Governments of Ethiopia and the Republic of Djibouti have jointly decided to upgrade, rehabilitate and give out the overall operation and management of Railway system to an operator on Concession Agreement basis.

This option is believed to enable the bi-national railway network to play its varied and vital role and fully contribute its share to the future development endeavors of both countries, by lifting annually up to 1.5 million MT of freight between Addis Ababa and the Port of Djibouti.

Impact of investment in the road sector during the period of SDPRP (2002/03-2004/05):
The total classified road network has increased by about 11% over the last 3 years; reaching 37,018 km in 2004/05 from 33,297 km in 2001/02. However the road network density is still only 33.6 km/1,000 km² in 2004/05, compared to the African average of more than 50 km/1000 km². The proportion of roads in good conditions has reached 64% by the end of 2004/05 compared to 30% in 2001/02. This, in turn, has an impact on the reduction of vehicle operating costs. An assessment of traffic along main roads has revealed a rapid increase in volumes; traffic volume along major roads has increased well above forecast levels with the growth rates as high as 20% per annum.

Overall Policies and Institutional Reforms of the Road Sector

The success of the road sector development program does not only depend on physical construction. The efficiency and sustainability of transport services and the enhanced road network also need to be supported by appropriate policies. On-going key policies and institutional reforms include:

- Improving resource mobilization and allocation through equitable road pricing and provision of adequate budget for road maintenance, and strengthen the Road Fund;
- Enhancing the capacity of road construction and maintenance by creating an enabling environment for increased participation of domestic private contractors;
- Reducing reliance on force-account by turning ERA's District Maintenance Organizations (DMOs) into fully commercial operating units;
- Setting strict directives for the enforcement of safety regulations so as to reduce the number and severity of road accidents;
- Strengthening the enforcement of axle loads limits;

- Addressing the environmental effects of road construction and taking measures to ensure conformity of design standards with environmental protection requirements;
- Promoting the use of labor-intensive technology and ensuring community participation wherever possible in building and maintaining local and community roads;
- Providing community-based integrated village travel and transport services to reduce travel time and burden on villagers, especially women, to meet the expected increase in the movement of agricultural input and surplus production;
- Strengthening administration and management in such a manner that Federal and Regional Road Agencies have the institutional capacity to manage and maintain the current road assets and protect future investments in the road sector;
- Developing a coherent planning and programming approach based on a network stabilization program, in which Federal and Regional Road Agencies formulate common methodologies of allocation of available and projected resources.

Road Sector Development Program Under PASDEP (2005/06-2009/10)

The investment and policy reforms in the road sector need to be continued since a partial implementation would fail to yield the full potential benefits agreed among different stakeholders. Rehabilitation of the existing limited paved trunk road network and provision of funds for minimum maintenance alone will not ensure sustained protection of the network as a whole. Without continuing investments in follow-on projects included under RSDP/SDPRP, vehicle-operating costs will remain high, and evacuation of agricultural production will continue to suffer from inaccessibility resulting in high transportation costs.

Program Objectives: The primary objective of the Road Program under PASDEP is:

- To sustain road sector reforms and to restore and expand Ethiopia's road network and provide a sustainable level of essential road infrastructure to the rural population;
- Side-by-side, the program assists in developing a strong management and technical capacity to manage the road network; and,
- The development of the capacity of the domestic construction industry.

The physical targets set are to:

- Reduce the inhabited land area farther than 5 km from a road to 59% by the end of 2009/10, from the current 72% (2004/05);
- Reduce the inhabited land area farther than 2 km from a road to 81% by the end of 2009/10, from the current 88% (2004/05);
- Reduce average walking distance from a road to 3.2 hours by the end of 2009/10, from the current 5 hours (2004/05);
- Increase the road density to 54.1 km/1,000 km² or 0.72 km/1,000 people by the end of 2009/10 (including low class roads) - from the current 33.6-km/1,000km² or 0.51 km/1,000 people (2004/05); and,

- Increase the rate of acceptable (good + fair) roads to 84% for all road types by the end of 2009/10, from the current level of 64%¹⁰ (2004/05).

Specifically, the Program would consist of:

- Civil works program including rehabilitation/upgrading of 4,890 km of federal roads, new construction of 2,715 km of federal roads, and improvement of bridges and structures;
- Road maintenance program including periodic maintenance on 3,515 km of federal roads, and routine maintenance on all types of roads;
- Regional road construction/maintenance program including construction of 8,226 km of regional roads, periodic maintenance on 637 km of regional roads, and construction of 85,900 km of low class (ERTTP) roads;
- Institutional support to strengthen ERA, Rural Road Authorities (RRAs), Road Fund Administration (RFA), Domestic Construction Industries (DCI), man-power training and conduct of different studies to support the vast increase in activities under the program, and overcome the general lack of experience in the sector; and,
- A number of policy and institutional support studies such as Geographical Information System (GIS) for the Ethiopian road network, Transport Poverty Observatories, rural transport issues, road financing, national transport master plan, performance monitoring and a variety of system studies.

Ethiopian Rural Travel and Transport Sub-Program (ERTTP)

The sub-programs will continue to be a key part of the PASDEP. The ERTTP is an approach that focuses on reducing the travel and transport burden of the rural population by constructing road infrastructure, providing social and economic infrastructure facilities and enabling the people to utilize the road infrastructure effectively. Start-up activities have been finalized, and much experience has been gained in the process. The next step, i.e. the main program of the ERTTP, will be implemented during PASDEP. The ERTTP is expected to better support agricultural and other commercial activities in the regions, and thus provide a sound and sustainable foundation for the on-going economic development effort in the country. The program envisages undertaking the following activities during PASDEP period:

- Construction of substantial amount of low level rural roads,
- Provision and expansion of a conventional and intermediate means of transport; and,
- Expansion and optimization of related facilities, and schemes that raise rural income levels of rural households.

Institutional Development and Policy Measures: The implementation of activities identified under policy and institutional reform measures will continue during the period of the PASDEP. These include: strengthening the administration and management of the road sector, enhancing capacity of domestic contractors, resource mobilization and road financing,

¹⁰ See Annex Table 7.6 for more details on road sector targets.

axle load control, road safety, transport regulation, improving network planning, mitigation of environmental impact, etc. These policies are expected to increase the efficiency of the road infrastructure and transport services so that the sustainability of the road sector and contribution to poverty reduction is attained.

The selection of road projects to be included in the PASDEP is simple and straightforward; in that all main road projects should be economically viable. The projects will have direct contribution in increasing mobility, improving productivity and distribution, decreasing journey time and reducing operating costs. However, for the Program as a whole, the prioritization or ranking involves a four-phase process whenever there is shortage of funding:

- First, those roads whose implementation is underway;
- Second, links, which are a continuation of, completed roads and at the same time supporting the objectives set before. This is mainly to complete the important routes to ports, neighboring countries and important centers;
- Third, projects connecting areas of great potential for irrigation and commercial farming to alleviate poverty; and,
- Fourth, missing links in terms of importance to the national economy and roads contributing for regional equity.

Given this effort, the accessibility of the road network will be significantly improved as important nodes are connected to each other. This process will be further enhanced through the implementation of community roads under ERTTP and rural roads.

Cost and Financing

The PASDEP road program, with a total cost of 43.2 billion Birr, is expected to be financed in parallel by: International Development Assistance (IDA), European Union (EU), African Development Bank (ADB), (Nordic Development Fund) NDF, Arab Bank for Economic Development Africa (BADEA), Oil Producing Exporting Countries (OPEC) Fund, Saudi Development Fund, Japan, Germany, Sweden, United Kingdom (UK), Ireland, several NGOs, the Road Fund, and the Government of Ethiopia and communities. Out of this 95% or 40.9 billion Birr is estimated for capital expenditure and 5% or 2.3 billion Birr is estimated for recurrent expenditure. 90% of the total expenditure will be covered from the public sector through Government's National Budget Framework; and the remaining 10% of the expenditure is estimated to be financed outside of the public sector through private sector, NGOs, and Community contributions. Other donors are expected to join and commit in providing the financial and technical support for this multifaceted program.¹¹ With the recent increase in oil prices, which in turn affect bitumen and asphalt prices, the costs and scale of the program will have to be re-apprised through the annual budget process as we go along in the course of implementing the PASDEP.

¹¹ See background document for summary of physical and financial plan of the road program under PASDEP.

Ensuring Sustainability of the Road Program: Strengthening the institutional and organizational capacity of road agencies is essential for sustainable implementation of the RSDP and up-keep of the road network. In addition, without fostering local contracting capacity to carry out maintenance and rehabilitation works, the country will continue to face capacity constraints to execute road programs. Furthermore, without greater resource mobilization, the Government will continue to face budgetary constraints in funding the required level of maintenance. Various efforts are underway to address this issue.

Enhancing domestic road construction and maintenance capacity is identified as an important ingredient that ensures sustainability of the road network. Measures that facilitate participation of local contractors have been introduced including contracting-out works, launching a study to identify the problems of the industry, and reforming contract documents of government financed projects as required. The Government has set a target under PASDEP of raising the share of construction and maintenance carried out by the private sector to 85%, from 60% today.

Roads are constructed and rehabilitated at high cost to the economy. Periodic and proper routine maintenance is therefore needed to prevent their pre-mature failure. The Government's commitment to ensure availability of funding for maintenance provides a very strong and reliable financial basis for maintenance activity. Given the critical importance of maintaining the existing stock of roads, the share of spending on maintenance is programmed to increase from 22% of road spending to 32% over the PASDEP period. Indicative revenue planning shows a gradual increase of funding derived from user charges channeled through the Road Fund. The Road Fund, which is the financing source for maintenance, will remain autonomous and its financial base will be broadened and strengthened during the PASDEP period.

Capacity, both at central and regional levels, is essential for the smooth implementation of the program and administration of the road network. ERA and the RRAs will be strengthened to administer contract projects through training and provision of technical assistance. The ERA, the lead organization, will decentralize and commercialize its activities. It will mostly focus on regulatory functions. Commercialization will enhance private sector participation in the program and enable road agencies to operate in a business-like manner.

Monitoring and Evaluation: The Government recognizes the need to improve the process of monitoring of projects and evaluation of their impact. Towards this end, several sectoral performance indicators have been identified for monitoring purposes. These indicators take into account the RSDP benefits and the sustainability of the RSDP in terms of financial, institutional, environmental, operational and regulatory aspects. The previous RSDP monitoring indicators had limitations in that they did not capture key transport performance indicators with linkages to the MDGs. However, the scope of the indicators used to monitor the RSDP has now been extended to include the recently agreed measures of performance in achieving the MDGs (Africa Transport Ministers' Conference, April 2005) which comprise of 37 transport related indicators incorporated in the MDGs in addition to the 16 RSDP indicators being monitored annually.

Accordingly, a combination of output and outcome indicators is used to measure performance of the RSDP under PASDEP. Key output indicators such as improved quality of roads, km of roads to be constructed are important and measurable indicators of performance. Outcome indicators include road density and mean distance to all weather roads, which are key measures of accessibility and mobility, given the challenge of linking isolated communities to the markets and to basic services. The background note on transport provides the full list of indicators to be monitored and targets set to 2009/10. See Annex Table 7.6 for detail targets during the period of the PASDEP.

7.5.3 Power

EEPCo plans to increase power supply by three-fold over the coming five years. In total, generating capacity is to be increased from the existing 791 MW to about 2,218 MW by 2009/10.

Electricity is essential both as an input into the growth of the modern sector, which is needed to provide jobs and export earnings, but also as an essential ingredient of the rural transformation agenda to provide the basis for businesses and production in small to medium-sized towns, and as an input into agriculture, for irrigation pumping, commercial agricultural production, and processing. It is also an important part of the social transformation, allowing children the light for studying, providing basic cold-chain services at health centers, and the use of more modern techniques and equipment at hospitals and secondary schools.

People in poverty-afflicted rural areas frequently suffer from the so-called 'vicious circle' of energy poverty. As they are energy poor, they have no energy to operate machines, so they achieve low productivity. Low productivity results in small surpluses and little cash, and hence less money to buy improved energy services. Furthermore, as shown in the 2004 WMS results, they then rely heavily on firewood for heat, light, and cooking, further degrading the resource base. Attempts have to be made to break the circle at some point.

A major element of the program during the PASDEP period will be the launch of a large-scale rural electrification program, called the Universal Electrification Access Program (UEAP). Over 6,000 rural towns and villages are identified for electrification in all regions of the country. At the moment, the access to electric power in rural areas is almost nonexistent, as shown by the 2004 WMS results in Chapter II. Under the UEAP, access will be extended to some 24 million people, taking penetration to about 50% of the country within five years.

The selection of generation technology has been based on a least-cost analysis of supply options, which results in a ranking of small and larger hydropower projects as the least costly, as well as being environmentally sound, in combination with an optimum generation mix of some coal, gas, and wind power in a least-cost development program. In some cases, the program also involves small-localized off-grid power sources (such as photovoltaic solar and mini-hydro).

The broader power sector program during the PASDEP period includes the construction of 11 electric power generating stations with a total capacity of 4,091 MW, including construction

of the Gilgel Gibe-2 and Tekeze stations, which have capacity of 420 and 300 MW respectively. In addition, the Beles station (460 MW), Chemoga-Yeda (278 MW), Halele (96.4 MW), Werabesa (339.9 MW), Gilgel Gibe-3 (1,800 MW), Yayu Kesel (100 MW), Gojeb (150 MW) and of Wind Power generating (50 MW) plants are to be built during the period. EEPCo will also install new transmission and distribution lines and increase the distribution capacity within various towns. Measures are being undertaken to reduce transmission losses, with a target of lowering them to 13.5% by the end of PASDEP, compared to about 19.5% today.

As part of the institutional framework, the Government has now allowed for the participation of the private sector in generation of power for sale to the grid, and during the PASDEP will also allow the private sector, communities and cooperatives to participate in off-grid transmission, distribution, and sale of electricity. The on-going corporate reform program to strengthen human resource and financial management, and technical skills will be continued, and is designed to result in first-class utility service standards. The program will also contribute a great deal to developing the capacity of technical and higher education institutions as well as the manufacturing industry, and in turn reduce the foreign exchange requirements of the Power Sector Development Program (PSDP).

During the PASDEP period, the strategic programs are:

- To build transmission grids and make them ready for transmissions before newly constructed power plants are starting power generation;
- To build transmission grids and distribution sub-stations to provide electricity for those towns without any electricity;
- Strengthening the existing power transmitting grids with lower capacity, construct alternative transmission grids incase of damage on the main grids to solve power interruption problems;
- To build central power load controlling station (National Control Center) to keep the safety of the transmission grids and use them economically; and,
- To construct transmission grids that will reach to neighboring countries (Sudan, Djibouti and Kenya) to enable export electric power to those countries.

During the PASDEP period, a total of 13,054 km transmission grids will be constructed of which 1,252 km with transmission capacity of 400 Kilo Volt (KV), 4,692 km with transmission capacity of 230 KV, 4,799 km and 2,311 km with transmission capacity of 132 KV and 66 KV, respectively.

One of the challenges during the PASDEP, not only in power but also in water, roads and telecommunications – is to redress the regional imbalances in infrastructure, especially in the less-developed regions. In some cases, this will not be cost-effective, because of low concentrations of population, or the high costs of reaching remote areas, but to the extent that it is possible within available resources, efforts will be made to expand the connection of these areas. As part of this effort, there will be more regional decentralization of large

national level institutions (such as ETC and EEPCo) to render them further integrate their activities with localized planning and needs.

Cost and Financing

The total costs are estimated at 51 billion Birr, of which generation costs are expected to account for 61%, and the UEAP for 25% of the total investment costs. The balance is made up of spending on transmission and distribution investments outside the UEAP program (7.6% and 2.1% respectively), and capacity building and studies (4.3%). Regarding its source of financing, 39% is estimated to be financed from the revenue generated by the Corporation itself, 55% estimated to be financed from local and foreign loans and the remaining 6% is planned to be financed from government treasury and community contributions.

7.5.4 Telecommunications

Upgrading and expanding the telecommunications network and services are essential to modernize the sector and bring about national growth as well as greatly support the rural economy. For example, having basic telephone access in villages allows farmers to get information on prices for their crops and livestock products. It also improves efficiency of local administration, encourages the development of trade and small businesses, and facilitates the provision of social services such as health, education and agricultural extension.

At the wider level, cheap and reliable domestic and international communications, including access to the Internet, is important not just for businesspersons and exporters, but also to carry out duties of government, support the teaching-learning process, keep personal or family ties.

As noted in Chapters I, coverage of telecommunications in Ethiopia is among the lowest in the world, with approximately 5 lines per 1,000 persons, and 87% of the rural population living more than 5 km from the nearest telephone service facility. On the other hand, as also noted in the WMS results presented in Chapter II, telecommunications is one of the areas where greatest improvement have been made in the past few years. Ethiopia has made a huge investment in the basic multimedia backbone including the laying of fiber optic cables, and the introduction of satellite and radio communication technologies in the past 3 years have facilitated the school-net, *woreda*-net and agri-net programs described in the next section.

With the substantial aggressive investment program during the SDPRP period, not only has the number of fixed telephone and mobile lines¹² and reliability increased, but also rates have been brought down significantly for domestic and international calls, mobile and internet use, to the point where some tariffs are now the lowest in Africa (for instance fixed line tariff ranging from Birr 0.40 to 1.20 per minute for inter urban, and 0.20 for 6 minutes for urban calls).

¹² The fixed line has increased from 353,816 in 2001/02 to 617,317 as of July 7, 2005.

There has been downstream liberalization, which lays the ground for greater competition, wider service options, and potentially lower rates during the PASDEP period. Simultaneously, the corporate reforms in the ETC are aimed at increasing efficiency and attaining a level of world-class telecom service. Ethiopia's broad policy framework is that the backbone infrastructure will remain in the public domain, under the auspices of ETC, while the private sector will be encouraged to become increasingly involved in downstream activities and services. At the same time, the Government and the regulatory authority (the Ethiopian Telecommunications Agency) will keep up sustained pressure to ensure that ETC meets the highest standards, attains roll-out targets and delivers world class network and service quality standards. The downstream liberalization is being pursued further during the PASDEP period, including encouraging private sector, communities or cooperatives to run Tele-Centers, private provision of mobile Subscriber Identity Module (SIM) card delivery and value-added services such as call center and virtual Internet services; as well as customer premises equipment including mobile apparatus, terminals and Public Branch Exchange (PBX).

During PASDEP, both fixed line and mobile coverage will increase significantly, to about 2,463 and 4,926 million lines, respectively. The percentage of population with access to telecommunications within 5 km is targeted to reach 100%; while the number of Internet connections will increase from about 20,000 Internet at present to 150,000 in 2006/07, and more than 200,000 by the end of the PASDEP.

Cost and Financing

To expand the planned service in the next five years, there is a need for about 37.5 billion Birr out of which 7.6 billion Birr is estimated for operation budget and 29.9 billion Birr is estimated for capital (investment) budget. This budget requirement is planned to be financed from the revenue generated by the Corporation itself and domestic loans. Some of the important targets are shown in Table 7.23 and see Annex Table 7.7 for the sector's five years detailed planned targets.

Table 7.23: Selected Telecommunications Targets under PASDEP

Indicator	Baseline (2004/05)	PASDEP Target (2009/10)
Percentage of population within 5 km of telecommunication service	13	100
Tele-density for fixed line	0.85	3.87
Tele-density for mobile	0.56	8.1
Number of Internet customers	17, 375	193,100
<i>Kebeles</i> with telephone lines (at least 5 lines*)	3,000	15,000

Note: * The 5 lines are assumed to be one each for *Kebele* Administration, Agriculture, Health and Education Offices and one Public Call Center. The Public Call Center will be run by ETC (in a business model) while the others depend on the subscription basis.

7.5.5 Information and Communications Technology (ICT)

The Government of Ethiopia believes that exploiting information technology is central to promote growth and reduce poverty. Ethiopia has already paid the price of not taking part in the earlier global economic revolutions: the industrial revolution and the agricultural green revolution; it cannot afford to miss out this time and be left even further behind. Embracing ICT is essential to creating new jobs, new business opportunities, to modern education, and to improving the effectiveness of government administration and service delivery. Therefore, a major priority is being attached in the coming five years to ‘leap-frog’ forward, by building a major ICT backbone coupled with affordable local-level access to ICT.

The ICT strategy in PASDEP consists of five elements:

- Promoting human resource development in the ICT field;
- Mainstreaming the use of ICT in all sectors of the economy, in the administration of government, and in the education system;
- Developing the necessary telecommunications infrastructure;
- Promoting research and development through ICT; and,
- Creating the enabling legal and regulatory framework.

Institutionally, to implement this strategy, the Government has established the Ethiopian ICT Development Authority (EICTDA), and the College of Telecommunications & Information Technology (CTIT); as well as significantly upgrading the technical capacity of the Educational Media Agency. The CTIT has been established to produce knowledgeable high-caliber professionals that are required to spearhead the sector; and the intention during PASDEP is to develop it as a center of excellence for imparting state-of-the-art education, training and research in ICT. Implementation of the Program will also draw heavily on mobilizing existing institutions such as the Ethiopian Telecommunications Corporation and the Ethiopian Telecommunications Agency, as well as -increasingly- private sector suppliers, providers and trainers.

The targets for the PASDEP period include deploying a world-class backbone and connectivity network consisting of:

- A full digitized national transmission microwave and switching system;
- 4,000 km of fiber along the major national route¹³ and 122+ interconnecting stations;
- 1,200+ broadband Very Small Aperture Terminal (VSAT) nationwide;
- A broadband multimedia Internet Protocol/Multi Protocol Label Switching (IP/MPLS) core network with footprints all over the nation; and a broadband internet network with points of presence nationwide; and
- Wireless Code Division Multiple Access (CDMA) to 5,000 rural villages.

Major upcoming initiatives include consolidation of the national core network infrastructure; securing multiple accesses to international submarine cables; and re-habilitating and expanding last-mile connectivity – including expanding connectivity to 15,000 *kebeles*. A

¹³ Representing the first phase of a 10,000 km program.

particular effort will be made to increase the number of community locations with broadband access, developing schools, *woredas*, and *kebeles* connectivity points into aggregated community service centers.

During the period of the PASDEP, the technical and managerial capacity of regulators will be strengthened to enable them to effectively handle a modern ICT environment. The Government will develop a legal and administrative framework for information security, privacy protection, records management, Point-to-Point Protocols (PPPs), business process outsourcing, and standardization.

A central part of the strategy is applying the principle of modern ICT to the delivery of services and administration of government, to improve effectiveness and reduce costs. Elements of the program include:

- **School Net** – to transform education by connecting 600+ high schools;
- **Woreda-Net** – interconnecting over 600 *woreda* offices and the 11 regional headquarters with high-speed broadband to greatly increase the flow and speed of information needed to administer the decentralized system (including, for example, the essential management of staffing, supplies, expenditure, and reporting.);
- **Agri-Net**, to facilitate resource sharing and communication between over 50 agricultural research centers nationwide;
- **HER Net** (Higher Education and Research Net), an educational and research network interconnecting all institutions of higher learning in Ethiopia;
- **Revenue Net** - an integrated network to assist the Federal Inland Revenue Authority and the Customs Authority in tax identification and collection; and
- **HealthNet**, which will interconnect all, major referral hospitals and form the basis for a nationwide telemedicine infrastructure.

A Ministerial level steering committee has been set up along with technical committees to oversee and coordinate this wide-ranging government initiative.

7.5.6 Strengthening the Construction Industry

Development of the domestic construction industry is an important part of the PASDEP strategy – both because adequate construction capacity is needed to implement the rest of the program, and because the industry contributes directly to poverty-reduction through large-scale employment of the poor and the nearly-poor.

At present the construction industry accounts for only 5.5% of GDP, compared to a sub-Saharan Africa average of 6%. However with sustained economic growth over the past four years, the sector has registered 8.2% growth; and public construction projects account for nearly 60% of the Government’s capital budget.

During SDPRP, a Construction Sector Capacity-Building Program was launched (2002-2006), an Engineering Capacity Building Road Map was developed, and new Procurement Guidelines developed for services and works.

The main objectives during the PASDEP period will be to implement a Construction Policy and Construction Capacity Building Program, which will build on the recent Engineering Capacity Building Road Map, and which is intended to create an efficient and effective domestic construction industry. The aims will be to enhance the quality and efficiency of production of construction materials, improve competitiveness of the contracting industry, build technical and managerial capacity, to create adequate capacity within the Government to plan and monitor, and create a conducive environment for the domestic industry.

The main elements of this program include:

- Review and formulation of all policies, systems, and regulations to create a productive enabling environment;
- Development of standards and quality guidelines;
- Building the potential of existing construction MSEs and providing training;
- Providing a stakeholders forum and capacity-building programs for large and medium-scale contractors;
- Completing a Needs Assessment and then developing a full short and medium-term training programs – for technical as well as managerial skills;
- Curriculum reform and development;
- Reviewing and revising the licensing system;
- Developing a legal framework for quality management, and development and implementation of construction standards; and
- Strengthening Associations in the construction industry to enable them to play a proactive role.

Additional measures foreseen during the PASDEP period include a program of research by the Ministry of Works and Urban Development and the private sector on local construction materials, material production, and improved building technologies and techniques as well as compilation of a construction industry database.

7.6 Tourism

Tourism is one of the under-exploited niche markets that will be one area of emphasis during the PASDEP. The long-term vision of the Government is to make Ethiopia one of the top ten tourist destinations in Africa by the year 2020, with an emphasis on maximizing the poverty-reducing impacts of tourism.

The major objectives within the sector are to maximize the direct economic impacts of tourism, increase the indirect economic impacts, and no less importantly, improve Ethiopia's international image and positioning, including its cultural and environmental standing.

For tourism to achieve a major development impact, number of tourists and levels of tourist spending need to increase. There are significant opportunities within all major sectors of tourism – vacation, business/conference tourists and non-resident Ethiopian tourists. Secondly, to ensure that tourism growth has the desired development impact; a beneficial industry structure must be created, with a liberalized supply-side framework and stronger

linkages to the local economy. The sector needs to enhance linkages to the local population, minimize foreign exchange leakages, and promote broad-based participation. Women, rural communities and marginalized groups in particular can play a vital role in a high proportion of enterprises in the sector,

Ethiopia has three major segments of tourism. Vacation tourists currently account for 31% of arrivals, business and conference 28%, and tourists visiting relatives account for 13%. Growth has been strong in all of these segments in recent years, growing at an average annual rate of more than 13%, nearly quadruple the growth rate for Africa as a whole. Vacation tourism has been growing faster, at 25% per year.

Tourism is already a significant industry in Ethiopia. It directly contributes nearly 2% of GDP, and taking account of induced economic activity, it accounts for a much higher share. However, Ethiopia is not realizing its potential in tourism. Ethiopia has many attractions for vacation tourists, including a unique historical record, world-renowned monuments, incredible record of hominid fossils and stone tools, dramatic scenery, distinctive cultural attractions and potential for wildlife development. It also has a friendly and welcoming people, is conveniently located and has a suitable climate.

However, growth of tourism in Ethiopia has been constrained by several factors. These include a negative image in international media, focused on drought, famine, and wars; the limited number and capacity of tourist facilities including hotel rooms and transport; and relatively seem as high cost of destination without having factual information of high airfares, car-hire costs, and entrance fees. There is a need to improve services provided by hotels, tour operators, tour guides, and to improve access to attractions and supplementary activities. Finally, there is a limited community share in tourism receipts, and limited impact of tourism on the poor.

In order to address these issues, the Government has announced its intention to achieve a “step-change” in the tourism industry during the PASDEP. It will provide the support required to develop the sector and ensure that tourism considerations are integrated into the policy-making of related sectors, including trade, education, infrastructure, and regional development planning.

The strategy sets out clearly defined its roles. Accordingly, the Government will establish an enabling environment. It will encourage a balanced, profitable industry structure, expanded infrastructure, reduced bureaucracy and better investment incentives. The private sector will be the engine of growth and the primary source of investment. Domestic and international participants will be encouraged. Active partnership between the public and private sectors will be promoted through the National Tourism Council and other stakeholders. The state will both initiate and encourage selected imaginative projects that accelerate growth in the sector.

In order to achieve this, a major priority will be to eliminate supply barriers in the hotel, transport and tour operator sectors. Improved destination management will protect against degradation and enhance the tourist experience, and broad human resource development will be supported.

Given the current supply constraints and sustainability concerns, the initial focus will be on low-impact, high-value tourists. Increasing spending and promoting trips outside Addis will increase the impact of tourists and members of the Diaspora visiting relatives. The greatest long-term growth and impact of tourism is expected to be seen in vacation tourists.

Some of the planned interventions during PASDEP include:

- Upgrade the general quality of hotel management and service standards. This will require more understanding of what is required by international tourists, best achieved through demonstration from foreign investors, as well as improved quality controls;
- Encourage increased contacts of domestic tour operators with foreign operators, and supporting foreign participation on equitable terms;
- Broaden the tourism product; and supporting the expansion of tours into new locations and activities;
- Opening up new tourist attraction regions, for example, mountains and desert regions, with due regard for environmental and sustainability factors;
- Encourage the participation of private sectors in investment and management of developing natural parks into tourist destinations with private sector partners;
- Strengthen domestic industries that contribute for tourism and improve the quality of products and services as well as develop the design of handicrafts, create codes of conduct for guides and improved licensing systems, and, provision of training facilities;
- Promoting special initiatives to promote entrepreneurs in less well-developed areas and encourage hotels to utilize local supplies;
- Provide supportive policy environment, institutional structure and promotion services through the Ethiopian Ministry of Culture and Tourism and build regional bodies that are responsible for tourism development;
- Strengthen physical plan preparation for tourist attraction areas, establish necessary tourist information centers, and promote proper management system and means of market advertisement with regard to tourist destination development;
- Expansion and upgrading of the Catering and Tourism Training Institute (CTTI), from its present capacity of 120 to 600; and,
- Site-specific projects, for example in Lalibela (including preparation of an Integrated Management Plan and upgrading the water supply); the Konso community-based tourism project in the southern region; a Druze communities and handicrafts project, and a number of sub-projects for the Addis Ababa area.

To increase the poverty impact the strategy will promote links to marginalized constituencies – especially women, rural areas, poor communities, and build links between attractions and local communities in the area to benefit from tourism, as well as linking communities with handicraft services supply and support services. Particular attention will be paid to the southern and eastern regions to ensure that various nationalities are able to benefit from tourism, and that their natural evolution is not adversely impacted.

Ethiopia has a limited budget for promotion and, given its limited budget and many other calls for resources, this will continue. Promotion spending therefore needs to be designed to

have the maximum impact by closely targeting priority markets and using creative methods to promote tourism in Ethiopia. Collaboration with Ethiopian Airlines will be critical.

A number of international agencies have begun to focus on the tourism potential of Ethiopia – most notably the World Bank, the World Tourism Organization, United Nations Development Program (UNDP) and some bilateral aid agencies such as Netherlands Development Organization (SNV), Department for International Development (DFID) and German Technical Cooperation (GTZ). This should give a major boost to the development contribution of the sector. During PASDEP, Ethiopia will be undertaking a series of Sustainable Tourism-Eliminating Poverty (ST-EP) pilot projects identified with the technical collaboration of the World Tourism Organization, which are intended to:

- Improve the quality of the tourist experience at a destination;
- Increase the spending by every visitor through increasing the average length of stay in the area and increasing spending opportunities;
- Increase the share of income earned from tourism that is retained in the area;
- Improve the distribution of tourism income to poor people in the community, directly and indirectly; and,
- Ensure that tourism development in the area enhances but does not detract the quality of the environment, the heritage, or the local quality of life.

The mechanisms for poverty reduction under ST-EP include, among others, (i) an employment policy favoring local people; (ii) supply chain strengthening; through identification and encouragement of actual and potential local sources of supply of foodstuff and other needs of tourism enterprises; (iii) strengthening the informal economy: improving the quality of basic, informal accommodation and catering, and of local handicraft production; and (iv) training and licensing of local guides.

Finally there are a number of private and government-assisted initiatives to help expand handicraft production and marketing through training in production and designing, micro-financing, and marketing.

7.7 Mining

The mining sector is another niche, which has been under exploited. There is substantial potential for generating foreign currency earnings and savings, contributing to industrial development and creating income, and employment opportunities in the small-scale mining sector. Mineral production is also a significant option for diversifying the export base. The mining sector already makes a significant contribution to export diversification¹⁴ although its share has not been adequately documented in the national accounts framework.

¹⁴ Previous statistical analyses have limitations in addressing the contribution of mining to national exports, since only gold production has been reflected in the National Bank data; however gold, tantalum, marble, and gemstones have all been exported to the world market, generating significant foreign currency earnings every year.

From the limited exploration activities conducted so far in Ethiopia, various mineral deposits have been identified. Among them are gold, tantalum, platinum, iron, nickel, potash, soda ash and different industrial and construction minerals, gemstones, natural gas, salt, mineral water and geothermal energy. Some of these have already been developed and are contributing to the national economy. For example, gold from a major single open pit mine and silver from a further refining process contributed more than US\$40.7 million during 2003/04. The Government has also earned US\$172 million from the privatization of Lege Dembi Gold Mine, the largest amount generated by the privatization process.

Similarly, production of construction and industrial minerals such as soda ash, kaolin, quartz and feldspar, dolomite and silica sand reduces the import of such minerals and saves foreign currency. Development of Bikilal phosphate, Dallol potash and Yayu coal (the raw materials for production of fertilizer) are considered to be very important for the realization of a locally operated fertilizer industry.

If the Calub gas condensate project comes to development, it can potentially reduce the import of petroleum products, serve as a raw material for fertilizer production, and be used for power generation. In addition to these, energy resources like geothermal and coal could play an important role in the production of modern energy and substitute for imported fuels.

Currently 24 foreign and local companies are involved in mining and related activities. The total investment of these companies including those in the petroleum sub-sector is about US\$1.75 billion. Although direct employment in large-scale mining is limited, studies indicate that 400,000-500,000 people are engaged in small-scale artisanal (gold and salt) mining in different parts of the country; and among these half of them are female.

During the last five years, over 84,250 km² have been covered with regional geological mapping, which brings the total coverage to 38% of the country. Overall, hydro geological and engineering geological mapping covered 27% and 7% of the country, respectively.

The objectives and strategies in the mining sector during PASDEP are:

- Increase the coverage of geological mapping, which is the basic data needed for mineral exploration and infrastructure development;
- Creation of an enabling environment which includes the legal and regulatory framework, policy and enforcement of the policy and strategy;
- Conduct hydrogeology, engineering geology and geophysical studies that delineate mineral potential areas of interest for private investment;
- Produce technical promotion documents which are of paramount importance for attracting investment;
- Provide technical assistance, training, and consultancy services for artisanal miners in order to help them improve their way of living;
- Legalize artisanal mining operations engaged in production of precious and gem minerals and establish a legalized market system in order to increase foreign currency retention and employment;
- Support and strengthen the expansion of artisanal miners cooperatives; and,

- Carry out social surveys to better understand the participation of women in Artisan mining so that women could make meaningful contribution towards the development of mining and help themselves.

The following targets are to be achieved by the end of 2009/10:

- The regional geological mapping data coverage which is basic data for mineral exploration and infrastructure development will be increased from 38% to 53% of the territory of the country at a quarter million scale;
- The hydro geological mapping coverage will be increased from 27% to 42%;
- Investment in the sector will be increased by ten-fold;
- 85% of illegal precious metals production and marketing activities will be legalized;
- A total revenue of 110.5 million Birr be gained from issuance and renewal of licenses, and royalties;
- To have assessed the problems that women face in artisinal mining, enhance their capacity and to sustain their participation in the development of mining;
- To have strengthened the capacity of the Ministry to manage and administer the development of the mining and energy sectors;
- To enact legal and institutional reforms to create a conducive environment for local and foreign investors;
- Increase coverage of engineering geological activities from the current 7% to 15% by the end of the plan period; and,
- Increase geophysical coverage from the current rate of 65% to 80% by the end of 2009/10.

The major targets of the mining sector for the PASDEP period are indicated in the Table 7.24 below.

Table 7.24: Mining PASDEP Targets

Activities	Base year (2004/05)	2005/06	2006/07	2007/08	2008/09	2009/10
Increase revenue earnings from the sector (in million Birr)	20	29	39	39	43	45
Increase coverage of geological map (%)	38	41	44	47	50	53
Increase hydro geological coverage (%)	27	30	33	36	39	42
Increase engineering geological coverage (%)	7	8	10	12	14	15
Increase geo physics (gravity) coverage (%)	65	68	71	74	77	80
Increase the magnitude of investment in the sector (in million Birr)	62	97	129	129	142	148
Increase the number of legal traditional mining producers (%)	--	17	34	51	68	85
Increase the volume of mining production for exports						
Gold (kg)	3,881	6,367	4,367	4,852	5,337	5,337
Tantalum (ton)	63	71	71	79	87	87
Jewelry mining (kg)	2,760	2,830	2,830	2,890	2,968	2,968

7.8 Trade and Industry Development

7.8.1 Background

Industrial development in Ethiopia is still in its infancy and has a narrow base. Moreover, its linkage with the agricultural sector is weak. Nevertheless, due to an array of reforms and the opening up of the economy and the creation of conducive investment environment, a steady growth of industrial and trade has been registered in the past years. Some notable results have also been achieved during the last four years. There has been a surge in investment, a sustained growth in exports and increased employment generation. Moreover, experience has been gained in providing support to the private sector, and a close working relationship with the sector has been created. This is in part as a result of a more open and liberalized economy, and in part due to the rebound from years of unsettled domestic and external conditions. With the return of peace and economic stability, there has been renewed confidence, and a surge in business activity. For example, value-added in industrial output grew by 7% and in services by 6.7% on average during in the last three years (2002/03 to 2004/05).

The integration and interdependence between the agricultural and industrial sectors play a key role to accelerate the country's economic development and to bring about socio-economic transformation. As indicated above, under the prevailing circumstances, the linkages between the two productive sectors have remained very weak; and the industrial base of the economy has continued to be very limited. The share of the industrial sector including manufacturing,

construction, hydropower, and mining, has not exceeded 14% of GDP on average; of which the manufacturing sub-sector (cottage industry, small and micro enterprises and medium and large scale manufacturing industries) accounts for 5.5% of GDP on average. The average share of manufactured products to total exports does not exceed 5% of GDP on average as well.

The agricultural sector plays a major role in supplying inputs to the industrial sector as well as creating the market for outputs of the industrial sector. The on-going ADLI strategy, designed to address the underlying structural problems is aimed to achieve critical objectives. The strategy, in addition to improving the condition of food security in the country, supports the provision of the required raw materials and inputs to the industrial sector. Furthermore, the foreign exchange earned from export of agricultural products serves as a means to import the necessary inputs, raw materials and machineries for the industrial sector. Likewise, as the income of the farming population improves, it becomes the main user of industrial consumption goods, agricultural machineries, and investment goods. This will in turn create opportunities for further expansion of the industrial sector.

The linkages between the agricultural and industrial sector also provides the opportunity for the expansion of the service sectors i.e., domestic trade, transport, banking and finance, and the tourism sectors. The overall outcome of the above features is the major contributing factor for the envisaged accelerated development and social and economic transformation. Hence, the overall strategic framework is comprised of the government's Industrial Development Strategy, implementation of the findings of the Diagnostic Trade Integration Study (DTIS), the ongoing Privatization Program, and the National Micro and Small Enterprises Development Strategy.

A sustainable and fast industrial development can only be ensured if the sector is competitive in the international market. Hence, it needs to be exposed to the rigorous of the international market. Apart from its linkage with agriculture, it should be export oriented and led by the industrial export sector. This is the thrust of our Industrial and Trade Development Policy and Strategy. So far, useful experience has been gained by implementing the strategy. In order to successfully implement the strategy, the state has focused on three areas, namely

- Providing support to the private sector;
- Coordinating & guiding the activities of all stakeholders; and,
- Addressing market failures.

As limitations on implementing capability and shortage of finance are the major challenges to be faced during the plan period, the appropriate policies and strategies must be manifested in government executing offices, private sector management and at the level of the employees.

In order to alleviate the above-mentioned limitations, working systems should be strengthened on all fronts and the capacity of manpower should be enhanced through training. To this end, the Reform process will be implemented with vigor and training institutions will be strengthened.

To alleviate shortage of finance, domestic banks will be strengthened to be efficient and effective in loan disbursement and re-collection. In addition to earning more foreign exchange through export, seeking additional sources of credit facilities could also be pursued to address problems of finance.

7.8.2 Industrial Development

One of the strategies of the Government to accelerate economic development and to improve the living standards of the people is the *Industrial Development Strategy*. The strategy is prepared based on ADLI and is being implemented since 2001/02. The underlying objective of the strategy is to increase the benefits earned from economic integration with an ultimate goal of becoming an industrialized country. This involves strengthening of inter-sectoral linkages (between agriculture and industry) on the domestic front and through exploiting the potentials and opportunities of regional and global economic integration. The rural-centered ADLI within the framework of a free market economy is the principal driving force of the strategy.

The following are among the measures that are put forward through the Industrial Development Strategy:

a) Creating conducive environment for industrial development and investment.

This involves:

- Eliminating rent-seeking activities;
- Maintaining macroeconomic stability;
- Maintaining security, a stable environment for sustainable investment;
- Building a functioning and well-regulated financial sector;
- Investing in infrastructure; transport and telecommunications that lower the cost of business, and provision of reliable water supply, and power that are essential inputs to any industrial activity;
- Ensuring the availability of land;
- Providing an educated and skilled workforce through the education system;
- Establish agricultural information system to support development efforts;
- Establish an efficient legal framework and contract enforcement, and other administration systems;
- Strengthening activities under the capacity-building initiative, especially the Engineering Capacity Building Program (ECBP);
- Enforce working system that sustain strong market competition; and,
- Specific targets have been set to further improve service times during PASDEP – for example; customs clearance times were cut from weeks to a matter of days or hours. The time taken to get a business license has been reduced from 25 days to 2 days and currently to less than 1 hour, and procedures to access land for businesses streamlined.

b) Provide direct support and guidance to strategic sectors. This involves support to:

- Textile and garment industries;
- Meat, leather and leather product industries;
- Other agro-processing industries;
- Construction industry; and,
- Strengthening small and micro enterprises.

The objectives of the Industrial Development Strategy include:

- Enabling all industries to utilize their full capacity in order to increase production and productivity;
- Establishment and expansion of industries that are labor intensive and that use domestic raw materials;
- To strengthen the participation of the private sector in the development process; and,
- To increase the industrial sector's share of GDP and its employment generation capacity as well as its contribution to foreign exchange earnings.

7.8.3 PASDEP Targets for Selected Strategic Sub-Sectors

The target set for the industrial sector during the period of the PASDEP is to register an average annual growth rate of 11.5% and thereby to increase the sector's share in overall GDP from 13.6% in 2004/05 to 16.5% by the end of 2009/10.

To achieve the just indicated growth rate in the industrial sector GDP, the target set for selected strategic sub-sectors of the industrial/manufacturing sectors are summarized below:

a) Textile and Garment

By the end of the PASDEP period, it is expected that export earnings from textile and garment industries will reach US\$ 500 million. In this regard, continuous investment support and expansion activities will be carried out by the Government for more than 191 investors with investment worth US\$1.6 billion in the textile and garment industry.

b) Leather and Leather Products

By the end of the plan period, this sub-sector is expected to produce 20 million pairs of shoes per year (60-70 thousand pairs of shoes per day) and thereby to increase export earnings to US\$178 million. To this end, 74 (50 for shoes and 24 for shoe upper) factories will be established and existing ones will be capacitated as well. By the end of 2009/10, the sub-sector is expected to produce 405,000 pieces of leather products and 275,000 leather commodities and thereby raise foreign exchange earnings to US\$43 million. Besides, it is planned to upgrade the capacity of tanneries to produce finished leather products.

Table 7.25: Shoe Production Targets

Activity	2005/06	2006/07	2007/08	2008/09	2009/10
Shoe production (pairs in million)	6.4	8	12	16	20
Export earnings (US\$ millions)	96	120	180	240	300
Shoe upper (million sq. feet)	12.8	16	24	32	40
Foreign exchange earnings (US\$ millions)	0	15.9	50	94.7	178
Human resource requirement	2,586	3,232	4,850	6,465	8,080

Table 7.26: Leather and Leather Products Production Targets

Items	2005/06	2006/07	2007/08	2008/09	2009/10
Production (in number)	87,000	150,000	200,000	300,000	405,000
Required leather (million feet ²)	3.8	6.6	8.8	13.2	17.8
Export earnings (US\$ millions)	7.0	12.1	16.1	24.0	35.0
Human resource requirement	306	469	589	916	1,221

Table 7.27: Leather Goods Production Targets

Items	2005/06	2006/07	2007/08	2008/09	2009/10
Production (in number)	41,250	82,500	137,500	192,500	270,000
Value of production (US\$ millions)	0.619	1.2	3.6	5.8	7.2
Required leather (million feet ²)	0.268	0.536	0.894	1.3	1.8
Export earnings (US\$ millions)	0.72	1.4	3.8	5.4	7.8

c) Sugar Industry Development Program

The Government launched a sugar development master plan that will be completed by the end of the plan period. The program includes production of sugar and ethanol as well as electric power generation. Accordingly, during the PASDEP period:

- It is expected to produce 1.2 million tons of sugar (5 times the current level of production). Hence, expansion and maintenance work will be carried out in the three existing factories. An additional factory with high capacity will be established as well;
- Production and sale of about 86 MW electric power supply;
- Production of 143 million liters of ethanol so as to reduce the amount of fuel oil imported to the country;
- Creating employment opportunities for more than 80,000 people; and,
- By the end of 2009/10, to increase the export share of the country in the international sugar market by 2.5%.

Table 7.28: Production Capacity of Existing Sugar Factories

Factory	Production Capacity (Cane/Day in Tons)	Produced Sugar (Tons)	Developed Land (Hectare)
Wonji Showa	3,100	75,000	7,050
Metehara	5,000	120,000	10,000
Fincha	4,400	85,000	7,185
Total	12,500	278,700	24,235

d) Production of Flowers, High-Value Fruits and Vegetables

With regard to the production of flowers, it is targeted to intensify the initiated flower production in areas with altitude of 1,600-2,600 meters above sea level. Accordingly:

- Out of a total of 2,031 hectares of land leased to investors, the land covered by green houses is expected to reach 1,600 hectares;
- To put an additional 400 hectares of land under green house shelter;
- By the end of the plan period, a total of 2,000 hectares of land will be utilized for flower production; of which 519 hectares of land will be cultivated in 2005/06;
- Gradual transfer of state owned farms; of which 3,000 hectares of land will be cultivated to produce vegetables and fruits for export purposes;
- By the end of February 2004/05, the 322 hectares of land covered with flower production generated employment opportunities for 21,356 people; of which 64.4% are women. From those employed for related construction works, 71.4% are male; and,
- By the end of the plan period, the industry is expected to create employment opportunities for more than 70,000 people.

e) Development of the Cement Industry

- If the capacity of existing cement factories could be fully utilized, total production is expected to reach 1.6 million tons per year;
- In addition to the expansion work that will be undertaken on the two government-owned factories (Muger and Dire Dawa), 10 enterprises have obtained investment licenses;
- The factories indicated in Table 7.29 have completed design work, auction procedures and other preliminary construction activities and are expected to start production by the beginning of 2008/09;
- Cement production is expected to increase by 300% in the coming two and half years;
- The Government will take the necessary measures for the production of 1.7 million tons of cement by private investors and/or by creating joint ventures. Government's share in total cement production will be 38% while the remaining will be accounted for by the private sector; and,
- Feasibility studies are underway for those that have obtained the investment license and have the capacity to start production before the end of 2009/10.

Table 7.29: New Factories to be Commissioned During the PASDEP Period

Factory	Klinker Per Day	Cement Per Day (Tons)	Cement Per Year (Tons)	Installation Place
Muger	3,000	3,900	1,170,000	Muger
Midroc	5,000	6,500	1,950,000	Derba
Ethio-Cement	2,500	3,250	975,000	Chancho
Dire Dawa	1,500	2,000	600,000	Dire Dawa
Total	12,000	15,650	4,695,000	

Privatization and Government Joint Venture Development Programs: In line with the country's development strategy, the privatization program which had stalled until recently will be strengthened in the coming five years with enhancing the operation of the Privatization and Public Enterprise Supervising Authority (PPESA) in the past year, and supporting proclamation and action plan, based on the principles of: (i) commitment to a market-oriented, transparent and competitive bidding process; (ii) speeding up privatization transactions by increasing capacity and by providing more discretion for sale at market offered prices; (iii) a sale process that allows the successful bidder flexibility to restructure the labor force of the enterprise; and (iv) introduction of a voluntary separation package to mitigate the social impact of possible labor restructuring. During the PASDEP, the pace of privatization of public enterprises will be accelerated using different modalities such as lease, management contract, joint venture, and sale of the enterprise. Parallel with this, the Government will cover marketing gaps by its own or with joint ventures after conducting in-depth assessment studies.

With regard to exploring new development areas, feasibility studies will be undertaken to intensify the development of Palm Oil tree as well as bio diesel products. In the arid and semi-arid areas, it is planned to undertake research on the expansion of palm-date plantation.

National Micro and Small Enterprise Development Strategy: With the growing urban and small-town economy, and increased domestic demand, there are substantial opportunities for MSE development. The MSEs are particularly important in the context of Ethiopia's poverty-reduction strategy as they are seedbeds for the development of medium and large enterprises (vertical integration), and because they absorb agriculturally under-employed labor, and diversify the sources of income for farming families (horizontal integration).

Areas of high potential for MSEs include animal husbandry, poultry, silk harvesting, honey production, small-scale garment manufacturing and metal work, construction, and increasingly urban-based services (for example solid waste collection, parking lots, small shops and repair services). It is estimated that to date about 96,000 MSEs were strengthened and some 280,000 jobs have been created. The Government's support is mostly channeled through the Federal Micro and Small Enterprise Development Agency (FeMSEDA), and increasingly through regional MSEDAs. Activities include basic training in technologies and business skills, development of low-level serviced working premises, the provision of micro-credit and information on markets and techniques, and working with producers to identify constraints and bottlenecks.

Furthermore, for small firms to grow, and thus for growth to be pro-poor, it requires a number of institutional factors: low barriers to entry, efficient capital markets, contractual and property rights upheld by a well-functioning judiciary, creation of a healthy competitive business environment, and reasonable levels of risk with respect to factors like macroeconomic and political stability, and security. Plans for the immediate future include providing more basic training in textile skills, upgrading business development services by strengthening the capacity and providing staff training to regional MSEDAs; creating market linkages with foreign importers, with a special emphasis on handicrafts, especially hand loomed 'shemma' products, leather, bamboo, and basketry. An important element is supporting innovation and experimentation, value-chain/cluster support, and identifying constraints to emerging sectors. Efforts have been initiated in this direction with value chain analysis for tourism, floriculture, agro-processing, construction, meat, leather products and textiles and garments.

7.8.4 Integration of Ethiopia's Export Trade

The Government of Ethiopia has recently initiated the process of Ethiopia's accession to the World Trade Organization (WTO), which facilitates the integration of the Ethiopian economy with the international trading system through developing skills in bilateral and multilateral trade negotiations. In addition, efforts are being strengthened to gain maximum benefit from AGOA and Everything But Arms (EBA) initiatives. To this end, trade agreements will be reviewed in line with the country's development strategies and policies. In order to facilitate trade activities, the Government is planning to establish dry ports within the country so as to use them as transitory ports.

Given the low levels of urbanization, and limited domestic purchasing power, pro-poor trade is an integral part of the strategy. Particularly, strategic interventions planned for the PASDEP period include implementation of the findings of the DTIS that was undertaken during SDPRP. Among the recommendations of the study include: export diversification, increasing productivity in agriculture, livestock and meat production, strengthening the manufacturing and tourism industry as well as removal of trade constraints, promoting cost-saving procedures, and strengthening the capacity of trade support organizations are the notable ones. It is expected that the Study will be implemented by the various sector ministries and institutions within the next five years. To this end, the Government will monitor and ensure the medium and long-term implementation of the DTIS strategies.

Integrating Ethiopia's Export Trade with the Global Market: In order to integrate export trade with the national development strategy, and to enable the country to be competitive in global markets, constraints were assessed under the DTIS. An Action Plan has been adopted for implementation during the PASDEP period, including:

- Revamping the privatization program to bring about greater private participation in trade and industrial activities;
- Strengthening capacity with adequate management and technical expertise on trade issues, including negotiators' skills;

- Ensuring the legal and regulatory framework is conducive to attracting FDI and strengthen the institutional capacity of support organizations;
- Strengthening the management of the present land lease system to make land more affordable, accessible, and enhancing tenure security;
- Implementing the Trade Practice Proclamation (TTP) to establish healthy competitive environment by creating the necessary institutional arrangements to ensure both public and private enterprises are engaged in fair trade practices with the establishment of an Investigation Commission, and training of officials and judiciary to enforce the competition framework;
- WTO accession, including trade facilitation; and,
- Providing better access to services (water, power, irrigation, roads, telecommunication) through more efficient utilization of existing infrastructure and building new capacity; and to promote public-private partnerships in infrastructure development for industrial development and speeding up implementation of industrial zones.

Furthermore, the major focus of trade and industrial efforts over the coming five years is to enhance private sector participation, and the capacity of public enterprises to promote exports by giving more emphasis to: (i) reducing and eliminating bureaucratic bottlenecks by deepening the on-going civil service reform program so that the private sector is rendered fast and transparent service; (ii) enabling the private sector to participate in new developmental and service areas, especially in agro-processing, and to promote value-added for export products; (iii) implementing the Private Sector Capacity-Building Program, which includes accelerating the privatization program, improving the business environment, and strengthening international competitiveness of the private sector and capacity of its representative organizations.

7.8.5 Export Development During the PASDEP

A major increase in export earnings (20-25% per annum) is central to the PASDEP strategy. Equally important is the *diversification* of exports, to move away from the traditional reliance on coffee and other agricultural products to reduce vulnerability to price swings, and to increase the range of options for future potential growth. Diversifying export item and imposing value added on export products help to stabilize the country's annual export revenue.

The largest success story in the recent past has been the expansion of the cut-flower industry. The Government has been instrumental in supporting the industry through refining the on-going duty drawback scheme, voucher, and bonded manufacturing warehouse schemes, ensuring access to land and finance. As a result, the activities undertaken during the past three years contributed for better performance of the export sector. The objective is to expand this kind of experience to other sectors. Accordingly, the Government is undertaking sector and product specific studies to help identify market opportunities and constraints, and to provide fuller information to potential exporters. Among the most promising export items

are: oilseeds and pulses, and in the near future the export of selected specialized crops that can be grown in Ethiopia's high-altitude environment and/or at times of the year when they cannot be produced elsewhere (examples include cardamom and other spices, selected legumes, vegetables and fruits), increased export of meat, of hides and leather goods, and of garments and textiles, and development of tourism.

Given the high transport costs Ethiopia faces, as important as export promotion, will be effective import-substitution. Increasingly the productivity of these sectors will deliver more rapid growth, and may in some cases have a substantially more rapid impact on urban unemployment, especially if complimentary policies are adopted. Successful import substitution will also help reduce balance of payments pressures.

In order to support and enhance competitiveness in the international market, emphasis will be given to the following elements during the PASDEP period:

- Since agricultural products are the major items constituting Ethiopia's export base, increasing the supply of such products will greatly contribute to the increase in foreign exchange earnings from the sector. Hence, participation of the private sector will be supported through provision of TVET and research and development activities;
- Strengthening the programs designed to increase the production of manufactured products (textile and garment, leather and leather products) with improved quality;
- Efforts will be strengthened to attract more investors in the cut-flower industry and other high-valued export goods; and,
- To facilitate and speed-up the provision of land, maintaining the existing favorable conditions in each region will be further strengthened. In consultation with the business community, follow-up measures will be taken as well in developing the necessary infrastructure to encourage further investments in the industrial and agricultural sectors.

7.8.6 Private Sector Development

The provision of multi faceted support to the private sector has created conducive environment for increased investment. As the sector is a key for the development of both the industrial and the export sectors, the principles underlying the PASDEP strategy include continued commitment to regularly review and improve the environment for private investment and business activities and to strengthen the complementary role of the state with greater domestic and foreign private participation. The changing role of the state does not necessarily mean the state is getting out of the way in all cases. Even though the main driving force in a free market economy is the private sector, there are activities that will not attract private investment due to heavy initial investment and risk involved. Hence, within a transparent and clear guideline and framework, the state needs to intervene selectively in order to rectify market failure. The role of the Government in the framework of free market economy is to support and fill the gaps that could not be adequately covered by the private sector. To this end, the Government will intervene in selected strategic sectors to facilitate the development of the private sector by designing appropriate policies and strategies.

The role of the private sector and market-based approaches cuts across all sectors of the economy and hence to a broad range of poverty-related and strategic objectives of the Government which are articulated throughout the PASDEP. The private sector could contribute to efficiency gains in many areas, thereby enabling public resources to be used to deliver a greater range and volume of services, some of which may be provided in part by the private sector. In other cases, the private sector could contribute capital, or take ownership positions, reducing the pressure on the public budget to fund new investments. The most obvious areas of private sector growth include: (i) in the *agricultural and rural sector*, where millions of farmers both large and small are of course all private sector actors, and there is scope both for substantial growth of private supply of inputs and services, and for induced growth of spin-off and processing businesses, (ii) private sector participation in infrastructure, power generation and down stream telecommunication services, but also in the construction and supply opportunities as stipulated in the PASDEP, and (iii) in the *social sectors*, where there has already been a very substantial growth in private primary and secondary schools in urban areas, in technical and vocational training, and in higher education; as well as opportunities in private provision of health care services.

While the responsibility for Private Sector Development (PSD) lies to a larger extent in the hands of the private sector, the Government has a number of instruments at its disposal to directly support where this is justified. Specific plans during the PASDEP period include continuing the development of *industrial estates* in urban areas and small towns, and to provide the necessary locations for medium-scale industrial development. The Government will also help by undertaking value chain studies, specific and detailed market *studies* in selected key industries/sectors, to help identify opportunities, constraints, and factors that investors should take into account to make the most out of possible growth opportunities. Finally, the Government will continue to provide *business development training and extension services*, particularly under the framework of the ECBP.

The main role for the Government in facilitating private sector growth, however, consists of its contribution to elements of the enabling environment that are covered elsewhere in this report. In the past year, an Investment Climate Assessment Study was conducted which analyzes the conditions for private investment and enterprise growth in Ethiopia, drawing on the experience of local firms to pinpoint the areas where reform is most needed to improve the private sector's productivity and competitiveness. The study confirmed that improved conditions prevail in business registration and licensing, customs clearance, telecommunication services and labor regulations. The update also signaled concerns in areas such as access to land, the firms' perceptions of the overall tax regime, access to credit, and utilities such as electricity and water.

The Government will also take the following measures to promote the participation of the private sector in the development process. Augmenting the capacity of private sector and expanding foreign trade are the central planks of the PASDEP strategy as well.

a) Service delivery and private sector capacity building

- To facilitate effective and efficient services for the private sector through strengthening the existing service delivery improvement process;
- To pursue Private Sector Development Capacity Building (PSD-CB) project; and,
- To enhance competitiveness of the private sector in the international market.

b) Public-private consultation mechanisms

The opportunities for dialogue between the Government and the private sector have expanded substantially in the recent past. It is important that businesses be able to express their concerns, and provide constructive suggestions, to help the Government identify where there are bottlenecks, and for Government to be able to communicate its concerns to business. Recent innovations include the establishment of the Public-Private Consultative Forum, jointly chaired by the Government and the Ethiopian Chamber of Commerce with the involvement of sector associations in reviewing and commenting on the government's strategy during the formulation of SDPRP and of the current PASDEP. The Consultative Forum involves owners engaged in trade, industry, hotels, transportation, construction, agriculture, banks insurance, and health and education. It provides an opportunity for them to interact not just with Government, but also equally importantly with each other. Valuable experience has also been gained in joint preparation of action plans with private sector to implement the Industrial Development Strategy. Feasibility studies have been carried out in certain sectors where the private sector has shown reluctance to invest. Next steps include the formation and strengthening of the Chambers of Commerce and Sectoral Associations at the regional and *woreda* level, to take this process down to the grass root level.

The second type of forum is the one established between associations such as the flower producer and exporters association, textile and garment producers association, and leather and leather products producer association together with respective government institutions. The forum is believed to have been beneficial to discuss challenges encountered and possible recommendations to further strengthen private sector development.

Cost and Financing

Based on the MDGs Needs Assessment study, the resource requirement to support and capacitate the private sector and its contribution in the implementation of the Government's poverty reduction policies and strategies is projected at 13.2 billion Birr; of which 3.8 billion Birr (29%) will be covered from treasury through budgeting relevant government institutions in supporting private sector activities while the remaining 9.4 billion Birr (71%) will be covered by the public and the business community. The projected cost requirements for PSD during the PASDEP period is depicted in Table 8.1 of Chapter VIII.

7.9 Urban Development

7.9.1 Urban Development

While the focus of much of pro-poor development must inevitably remain rural-based, urban areas will play a more central role in the next phase of Ethiopia's development, and in the PASDEP, than they have been in the past. There are a number of reasons for this which include:

- The concentration of people, infrastructure, and services that take place in urban areas (including small towns) are an essential ingredient for modern sector development and economic activity;
- Urban areas provide the essential market and demand for rural production, and the essential source of skills, services, innovation and investment that need to spread out to rural areas;
- An inevitable shift in demographic patterns is taking place, as people move from saturated rural areas; and
- Urban poverty is a growing concern.

In response to these concerns, a number of actions have been taken. Firstly, there is an increasing focus on urban and regional issues throughout the strategy – both in terms of growth and of poverty alleviation. The MWUD has been established in October 2005. The Prime Minister has directed that special effort be initiated to address issues of urban growth, employment, and MSEs; and a Task Force has been established. A major on-going program of urban government reform and strengthening is underway; and finally, major investments are being made in areas as diverse as urban roads, markets, power, water supply, and housing.

Urban Poverty and Population Dynamics

Currently (2004/05), 16% of the country's total population, or some 11.7 million people, live in urban areas. The urban population is growing at a rate of about 4.4% per year, and is estimated to reach 22 million people by 2020. It is important to recognize the overwhelming weight of Addis Ababa in the urban picture in Ethiopia: Addis Ababa is a true primate city, with about 3 million people, is 14 times bigger than Dire Dawa, the second largest city in the country.

While final analysis will have to await the results of the 2004/05 HICES, there are some indications that there has been a modest decline in urban poverty in recent years. Moreover, recent urban growth has been unprecedented, mainly as a result of rural-urban migration, resulting in growing welfare and housing problems for the new urban poor, and increasing urban unemployment. The average urban unemployment is estimated to be 26%, and up to 40% in larger urban centers, including Addis Ababa. According to the 2004/05 HICES results, about 35% of the nation's urban population are living below the poverty line. There is thus an equal need for an urban poverty and welfare focus to the strategy as there is for the functional focus on urban areas' contribution to national economic growth.

Achieving MDG 7, target 11 – improving the quality of lives of slum dwellers – is of special significance to urban development in Ethiopia. Studies during the last five years conclude about 70% of the urban population is living in slums. Conditions in many slum areas are appalling: inadequate shelter combined with poor sanitation; extreme overcrowding and a high proportion of vulnerable women, children, youth, elderly and destitute, with very low incomes and high unemployment; results in a high risk of disease and an extreme poverty trap for many urban residents.

The Urban Development Strategy

The main objective during the PASDEP period is to achieve the goals of the National Urban Development Policy approved by the Council of Ministers in March 2005: that Ethiopia's cities provide efficient and effective public services to residents, complement and facilitate rural development, and are models of participatory democracy and build accelerated economic opportunities that create jobs. Of particular importance is to ensure regional equity in terms of programs developed and funds provided. Under SDPRP, the urban strategy focused on establishing the institutional and policy framework; the objective now is to move towards implementation and investments; but recognizing that the scale of the needs means that subsidies are not feasible, and that urban development needs to take place on a financially sustainable basis.

The urban development strategy has four pillars:

- Support for MSEs and job creation;
- Integrated housing development;
- Improved access to land infrastructure and services; and
- Promoting urban-rural and urban-urban linkages.

Cutting across the four pillars is an on-going program of strengthening urban governance. The main elements of the strategy are summarized here, and described in more depth in the background document **'Urban Development & Construction Industry' Component of PASDEP; MWUD January, 2006.** They are:

- a) With the aim of reducing urban unemployment down to less than 20%: support for MSEs and acceleration of the creation of urban-based employment, particularly where this complements rural linkages and the delivery of housing and basic services. Actions under this pillar include:
 - Developing vocational and technical training programs, linked to the provision of shelter and basic services;
 - A community-based and labor-intensive urban works program;
 - Expanding micro-finance institutions that focus on the needs of the urban poor;
 - Providing market support, promotion, and availability of serviced premises for small and micro enterprises; and,
 - Ensuring the availability of serviced land for all sizes of enterprises.

- b) With the objective of reducing slums in Ethiopia's main cities by 50%: launch a national integrated housing development program that scales up Addis Ababa's initiative, based on lessons learned, that integrates public and private sector investment with MSE development and provision of basic services. Measures under PASDEP in this regard include:
- Developing a national Integrated Housing Development Program that involves a combination of government financing and construction of housing in large and medium-sized cities targeted at middle and low-income households, combined with development by private property developers, private home builders, employers, and housing cooperative for which the Government will provide serviced land, public infrastructure and services;
 - Creating a new instrument for revolving finance; the Housing Development Fund, which will receive a parentage of the house purchase price from buyers at the point of transfer, and subsequently long-term repayment of capital and interest;
 - Ensuring that the private sector has adequate access to land, building materials, and finance; and,
 - Developing low-cost housing technologies.
- c) With the aim of contributing to creating jobs and ensuring access to serviced land and urban infrastructure and services by:
- Designing urban infrastructure program and experimenting with alternative standards and management approaches;
 - Implementing the findings of recent studies on urban land management;
 - Development of 5-Year Municipal Infrastructure Investment Plans; to be funded through a combination of the Capacity Building for Decentralized Service Delivery (CBDSD) project, Local Investment Grants, and the Urban Development Fund; and,
 - Implementing a study for Addis Ababa, Dire Dawa and the four large regional capitals on design and construction criteria and putting in place solid waste disposal and water-borne sewage disposal systems.

In addition, of course, the major sector investment programs described in the aforementioned sections of this chapter such as for water supply, transport, power, and telecommunication services will all contribute substantially to expanding the urban infrastructure base; while the social sector programs described under education, health, and HIV/AIDS cover the enhanced provision of basic services to urban as well as rural dwellers.

The fourth pillar of the strategy to promote rural-urban linkages include a Small-Towns Development Program, which will provide support services, such as development plans, basic services, and digital mapping to 600 small towns; preparing and providing management support resources for provision of basic services; and market infrastructure development in smaller towns.

Equally, or perhaps more important, than these elements of the urban development strategy, are the investments in road links, rural electrification, telecommunications and ICT connections, all of which strengthen market linkages and information flows between rural and urban areas. Increased rural education levels and rural-based technical training are important to reduce the barriers to labor mobility between rural and urban markets. Furthermore, infrastructure is unequally distributed geographically, with the less-developed regions being significantly less well endowed than the larger regions. To the extent it is possible within available resources, these imbalances will be addressed in the infrastructure investment programs under PASDEP.

Urban Governance

In the area of urban governance, much still needs to be done to make local authorities more transparent, accountable, and efficient in their response to the needs of the people. The main objective is to speed up the ongoing municipal reform programs and implementation of the draft comprehensive national urban development policy. The three parts of the urban governance agenda under PASDEP include:

- a) ***Strengthening the Policy, Legal, Regulatory, and Institutional Framework***: This relates to establishing the legal and institutional frameworks for urban local authorities in the five remaining regional states, which will then pass the necessary legislation and commence the task of creating and enabling urban local government authorities; together with the adoption by the four other regional states of similar legislation, and the Proclamations creating Addis Ababa City Government and Dire Dawa City Administration during SDPRP, this will complete the decentralization process of establishing the legal and institutional basis for urban local government. Other measures (described in more detail in the background document) include: development of National and Regional Housing Policies; of Regional Urban Development Strategies; a National Real Property Registration System which will establish a secure and comprehensive registration system for property rights; urban land preparation, implementation, and development control proclamations and guidelines, to strengthen land management and help prevent the formation of new slums; and a National Urban Strategy which will aim, inter alia, to ensure balanced urban development nationally, and a reduced dependence on Addis Ababa as the primate city by spreading development to secondary cities and smaller towns.
- b) ***Capacity-Building for Urban, Regional, and Federal Authorities***: This includes continued training of councilors and technical staff in the context of a comprehensive Urban Training Strategy and Regional Human Resource Development Plans; implementation of financial systems, and of effective fiscal transfer (regional grants) system in 2006/07; and continued implementation of other elements of urban governance under PSCAP.
- c) ***Performance Monitoring, Evaluation, and Reporting System***: In this regard, results-oriented performance monitoring, evaluation, and reporting system for implementation of

the PASDEP urban strategy and supporting action areas will be developed before the end of 2005/06 and be implemented during the remaining PASDEP period.

7.10 The Spatial Dimension: Regional Development Strategies and Urban Rural-Linkages

The Federal Government, in cooperation with the regional states is currently in the process of establishing the National Policy Framework for Regional Development (NPFRD), with the objective of defining regional development priorities in a transparent way, geared towards growth and sustainable regional development and poverty reduction. The NPFRD is oriented towards:

- A geographically differentiated strategy;
- Cross-cutting development efforts and decentralization;
- The establishment of a differentiated monitoring system; and
- Linking regional development planning and finance.

The NPFRD deals with inter-regional and intra-regional disparities, urban-rural linkages, and the spatial dimensions of regional development. It requires regional states to establish planning systems and elaborate Regional Development Plans, which will contribute to the identification of rural growth poles and tapping areas of high potential, through a concept of concentrated (instead of scattered) decentralization and the identification of central places and growth zones. The Regional Development Plans will also assess geographically-differentiated needs and priorities to accelerate growth, to take account of population changes, to strengthen the infrastructure backbone, and to manage risk and vulnerability.

Finally, the policy framework specifies an NPFRD Monitoring System, which is designed to monitor input, process, output, and outcome indicators related to regional, geographically differentiated development and planning within the framework of the PASDEP.

7.11 Population and Development

7.11.1 Demographic Status

Rapid population growth remains a major barrier to poverty reduction, and squarely addressing the population challenge is one of the eight central pillars of the PASDEP. At the moment growth of about 2 million persons per year puts tremendous strains on Ethiopia's resource base, the economy, and the ability to deliver services. It is much more difficult to make progress in reducing poverty, creating sufficient employment, or in raising agricultural productivity enough to keep up with food needs, with this continuing massive addition of people each year. Furthermore, reducing the number of pregnancies has a tremendous impact on women and children's health, and is one of the most cost-effective health interventions open to the Government.

The percentage share of Ethiopia's population out of total population of Africa, SSA and the world stands at 8.1%, 9.7% and 1.1%, respectively. The country also accounts for 3.8%,

5.4%, and 0.8% compared to the total surface area of Africa, SSA and the world. Details are indicated on Table 6.30 below. By the end of 2004/05, the total population of Ethiopia amounted to 73 million. Of this, 16% live in urban areas while the remaining people, 84% live in rural areas. In terms of regional disparities, 35% of the population live in the Oromia region, 26% in Amhara, 20% in SNNPR, and the remaining 19% live in the other regions and city administrations.

7.11.2 Population and Annual Growth Rate

The root cause of high rate of population growth is the combination of high fertility and declining mortality. Though fertility has fallen over time, it is still very high, at an estimated 5.4 (6.0 in rural areas, 2.4 in urban areas: DHS, 2005) births per woman, which is high by African and world standards. Population growth rate stands at 2.73%. Infant mortality rate stands at 73/1,000 as well.

Fortunately, it is possible to make inroads at low cost, and there is demonstrated demand for lower growth and smaller family sizes. The 2005 DHS for example showed that the average desired family size was at least one child less than actual current family size; and out of married women between the ages of 15-49, 77% would like to stop childbirth, and 42% wish to stay for at least two years before having their next child. Furthermore, remarkable declines in fertility have already taken place in urban areas -especially in Addis, where fertility has fallen fairly rapidly, which is below to 2.0 births per woman, as opposed to a national average of 5.4.

Table 7.30: Ethiopia's Demographic Situation Compared to the World

Indicator	Ethiopia*	Africa	SSA	World
Total population in millions (2004/05)	73	908	752	6477
Population growth rate (average rate of recent years in %)	2.73	2.2	2.46	1.2
Fertility rate (2004/05)	5.4	5.1	5.6	2.7
CPR in % (2004/05)	15	27	19	61
Infant mortality rate per 1,000 (2004/05)	77	88	94	54
Under-five mortality rate per 1,000 (2004/05)	123	148	-	81
Life expectancy (2004/05)	48	52	49	67
Total population below the age of 15 in % (2004/05)	44	42	44	29
Urban population (%)	16	39	29	48
Population density (per/km ²)	66	28	32	46
Average age of women at 1 st marriage (rural areas)	16.5	-	-	-

There has been some notable progress during SDPRP, with the CPR increasing from 8% in 2000/01 to 15% by the end of 2004/05. A major step forward is the introduction of female HEWs, who can interact with women at the village level. This is critically important, since

experience worldwide has shown that male workers, and those of a higher social status, are often not effective at supporting family planning interventions. The institutionalization of the program at the village level will also greatly assist the provision of the service and addressing the unmet demand. There is also evidence from NGOs experiences that involving both partners in family planning can prove successful as couples can make decisions together – although this clearly depends on cultural and personal sensitivities.

It is expected that the average population growth rate during the last 10 years will decline in the years to come. The total population of Ethiopia by the end of 2009/10 is projected to reach 83.5 million. Details are shown in Table 7.31 below.

Urban population growth rate is projected to increase by 4% annually, the major contributing factor being the rural-urban migration. By the end of the PASDEP period, total urban population is projected to reach at 14.4 million, amounting 17.2% from the level of 11.7 million by the end of 2004/05. This indicates that urban population will increase by 2.7 million people. In addition, early marriage, among other things, contributes to the high fertility rate. The 2005 DHS indicated that at the national level, the average age of women at their first marriage is 16.5 (16.1 in rural areas). The family law revised in 1999/00 puts 18 years of age as the legal marriage age for both men and women.

7.11.3 Population Composition by Age

By the end of the PASDEP period, the total population of children and young people below the age of 15 is projected to reach 36 million (43%) from 31 million (43%) by the end of 2004/05. The high rate of dependant population will put a strain on savings and investment as the families are obliged to concentrate on basic necessities. Moreover, by the end of the program period, the total productive population between the ages of 15-64, growing at a rate of 2.7%, is projected to reach 46 million from 40 million by the end of 2004/05. Creating employment opportunities that matches with the productive population growth rate will be among the challenges during the PASDEP period as it is currently difficult to create employment opportunities that matches with the productive population growth rate.

As indicated in Table 7.31 below, youth dependency ratio per 100 productive population is projected to stand at 78 by the end of 2009/10 from the rate of 79 by the end of 2004/05 and 77 during 2005/06. On the other hand, old dependency ratio by the end of the PASDEP period is projected to stagnate at almost the same level. Total dependency ratio is projected to reach at 83 by the end of 2009/10 from the rate of 84 by the end of 2004/05.

Table 7.31: PASDEP Goals and Target for Population

Indicators	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	5-Year Average Growth (2005/06-2009/10)
Total population							
Rural	61.3	62.9	64.4	66.0	67.6	69.1	2.35
Urban	11.7	12.2	12.7	13.2	13.8	14.4	4.06
Total	73.0	75.1	77.1	79.2	81.3	83.5	2.62
Population distribution (%)							
Rural	84.0	83.9	83.5	83.3	83.0	82.8	83.4
Urban	16.0	16.1	16.5	16.7	17.0	17.2	16.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total population below the age of 15 (in million)							
Rural	27.3	27.9	28.5	29.1	29.8	30.4	2.2
Urban	4.1	4.3	4.5	4.7	4.9	5.1	4.68
Total	31.4	32.2	33.0	33.8	34.7	35.6	2.54
Percentage share of population below the age of 15							
Rural	44.5	44.4	44.2	44.1	44.1	44.0	44.3
Urban	35.0	35.2	35.6	35.6	35.5	35.7	35.4
Total	43.0	42.9	42.8	42.7	42.7	42.6	42.8
Total productive population (15-64) (in million)							
Rural	32.3	33.1	34.1	35.1	35.9	36.8	2.66
Urban	7.3	7.6	7.8	8.1	8.5	8.8	3.13
Total	39.6	40.7	41.9	43.2	44.3	45.6	2.72
Percentage share of the productive population							
Rural	52.6	52.6	53.0	53.1	53.1	53.2	52.9
Urban	62.4	62.3	61.5	61.5	61.6	61.5	61.8
Total	54.2	54.2	54.4	54.5	54.5	54.6	54.4
Percentage share of old age population (above 65)							
Rural	2.8	2.8	2.8	2.9	2.8	2.8	2.82
Urban	2.6	2.8	3.0	2.9	2.9	2.9	2.85
Total	2.7	2.8	2.8	2.8	2.8	2.8	2.8
Dependency ratio (per 100)							
Young people	79.0	77.0	79.0	78.0	78.5	78.0	78.5
Senior citizens	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Total	84.0	82.0	84.0	83.0	83.0	83.0	83.5
Total population at the primary school age level (7-14)	14.7	15.3	15.9	16.6	17.2	17.7	16.5
Total population of women at their fertility age	17.5	17.9	18.4	18.9	19.4	20.0	18.7

Source: CSA Annual Bulletin, 2004 and the 1994 Population and Housing Census of Ethiopia: Results at Country Level: Volume II Analytical Report (CSA, 1999)

7.11.4 Linkage Between Population and Poverty

Population and Poverty: The high fertility rate reduces average income per capita; more pregnancies lead to high maternal mortality and morbidity; it undermines education of children, especially girls; and families with more children are unable to invest in the health and nutrition of children. In Ethiopia, evidence shows that large family size, with its high dependency ratio, is closely associated with poverty. In particular, those families with more number of children under the age of 15 years and older persons above the age of 65 seem to be vulnerable to falling into poverty. This shows the severity of dependency on the active labor force and the value of adult labor for the survival of rural households.

It is to be noted that total fertility rate is higher in the rural (6.0) than urban areas (2.4). This shows that the burden of poverty is mainly borne by the rural people of Ethiopia. The large size of poor population is taken as a threat to the socioeconomic development of the country.

Population and Health: Health and population are linked in both directions: children in smaller families are healthier, for example infant and under-five mortality are far lower among children spaced two or more years apart, and among children born to mothers with lower total fertility. At the same time, better child health reduces population growth – reducing the level of infant and child mortality leads to families having fewer children, because they can be surer that the children they have will survive. Families with fewer children are also in a better position to provide each child with health care and with adequate food and nutrition; and the lower rates of population growth reduce demands on the health care system, allowing better coverage and quality of service.

Population and Education: Increased education levels have been shown worldwide to be a major determinant of fertility and family size. Women's education in particular contributes to lower fertility levels. Slowing the rate of population growth will also dramatically reduce the amounts that need to be spent each year in the future on providing education; and will allow better quality education, by reducing overcrowding and class sizes, and allowing more resources per student in the form of textbooks and teaching time.

Population, Agriculture and the Environment: High population density in large areas of the country has created negative impact on agricultural production and environmental security. Studies show that due to increasing human and livestock population pressure on arable land and forest resources, in large areas of the country, particularly on the northern and central highlands, have been exposed to loss of fertility, degradation and ecological imbalances. Reports of the highland reclamation study have shown the seriousness of soil erosion on the highlands. Average farmland per household in the southern highlands has decreased to less than a quarter of a hectare. Furthermore, deforestation and soil degradation are major causes for food insecurity and poverty in Ethiopia; most of these arise from human and livestock pressures on land, leading to environmental degradation.

7.11.5 Population Policies, Strategies, and Goals

The National Population Policy guides the overall approach with the main objective of matching the country's natural resource with the population growth rate. In the policy, the Government focused on reducing total fertility rate to 4 by the year 2015; increasing the contraceptive prevalence rate to 44% by 2015; and reducing maternal, infant and child mortality and morbidity rates. The policy emphasizes the following population activities that require priority attention: improvement in the quality and scope of reproductive health service delivery; population research, data collection and dissemination; expansion and strengthening of domestic capacity for training in population; and expansion of Information Education Communication (IEC) activities and social mobilization.

The National Population Policy goals and targets include:

- Reduce the current total fertility rate to approximately 4.0 by the year;
- Increase the prevalence of contraceptive use from the current rate of 15% to 60%;
- Reduce maternal, infant and child morbidity and mortality rates as well as promote the level of general welfare of the population;
- Significantly increase female participation at all levels of the educational system; and remove all legal and customary practices militating against the full enjoyment of economic and social rights by women;
- Ensure spatially-balanced population distribution patterns with a view to maintaining environmental security and extending the scope of development activities;
- Mount an effective countrywide population information and education program addressing issues pertaining to small family size and its relationship with human welfare and environmental security.

There have been some significant achievements to date. Almost ten years after the policy was issued, maternal, infant and child mortality rates have declined from the rates that prevailed at the time the population policy was issued, and female participation at all levels of the educational system has significantly increased. The rights of women to participate in the political, social and economic fields have been guaranteed and laws have been promulgated to that effect; and a national population information, education and communication strategy has been developed to address various population issues. Still the challenges remaining in all of these areas are huge.

During the PASDEP period, focus will be given to the following activities with regard to population and development:

- The major initiative to increase girls and women's education levels, with an objective of achieving gender parity during PASDEP;
- The major program of female outreach (HEWs) and service delivery improvements in family health; which are essential to make family spacing services available to women on demand, especially in rural areas;

- In addition, a reproductive health strategy was drafted and a process initiated for the Regional Health Bureaus' review. The Ministry of Health has also begun work on a contraceptive security plan, including a national logistics system;
- A Population and Development Strategy (PDS) sub-program, which includes ensuring population and gender issues are systematically addressed within the framework of development programs on the basis of and understanding of population implications and data; complemented by the establishment of a National Population Framework to guide population activities at all levels;
- An Advocacy sub-program, to create an enabling environment for the adoption and implementation of population, reproductive health, and gender-related policies and poverty reduction programs; as well as the establishment of a National Population Council and preparation of a plan of action in order to effectively implement and monitor its programs; and,
- Creating conducive environment for improvement and continuation of population research, data gathering and analysis as well as for the establishment of Vital Statistics Registration System, which is indicated in the 1999/00 revised family law.

7.12 Gender and Development

Unleashing the potential of Ethiopian women who constitute about half of the population is central to the PASDEP strategy. This involves liberating women from low-productivity tasks, and increasing their participation in the work force and social and political processes of the country. Measures to achieve this include the major push to increase girl's and women's education, to improve access to water supply and sanitation, to focus on services related to mothers and women's health, and to adapt agricultural programs and technical and vocational training to the needs of women, all of which are largely covered in the sectoral elements of the strategy described in the various sections of Chapter VII. In addition, safeguarding rights such as access to land, credit, and other productive resources are central to the strategy, as is protecting women from the multiple forms of other deprivations, such as longer working days, and violence and discrimination against women, which are still widespread in the country. Measures to address these issues are also central to the PASDEP strategy.

The Government has moved decisively to advance the agenda on the gender dimensions of poverty during SDPRP and a significant number of initiatives are underway, including the National Action Plan on Gender, which forms the core of the gender strategy under PASDEP, as well as analytical initiatives such as a mainstreaming of gender into the budgeting process, and strengthening gender-disaggregated data reporting to better inform policy.

The NAP is intended to mainstream gender into policies and programs for more gender equitable poverty reduction outcomes. Specific elements include:

- a) To mainstream and articulate gender concerns in broad policy processes including the PASDEP, MDGs, and budget processes;
- b) To strengthen gender analysis and overall gender sensitivity of the PASDEP monitoring and evaluation system (including the core indicators and data collection systems);

- c) To strengthen the institutional structures and functioning of the Ministry of Women's Affairs, and identify entry points/activities for enhancing gender mainstreaming across government policies and programs.

The majority of direct interventions to improve gender outcomes are integrated in the individual sector strategies (see for example, the discussion of education, transport, or health programs in Chapter VI). A concept note for the NAP has been approved, a draft has recently been completed, and implementation will take place throughout the PASDEP period.

The Government will continue to emphasize gender equality in the process of decentralisation and empowerment, and will take measures to reduce violence against women including enactment of protective legislation. Among other areas, progress has been made during SDPRP in the adoption of a new Penal Code, which contains stronger measures in support of women's rights. In addition, the pursuit of the health extension worker program (Chapter VI) is part of an effort to reduce the very high number of maternal deaths, which constitute a major element of gender-based poverty in Ethiopia.

7.12.1 Goals and Objectives of the National Action Plan

The goal of the 5-year National Action Plan for Gender Equality is to contribute towards the attainment of equality between men and women in social, political and economic development endeavor of the country. To facilitate capacity building of vulnerable women and render them productive is the focus of the PASDEP. A structure is already set up to implement women affairs policy both at federal and regional level. The general objectives linked to the PASDEP strategy are:

a) Enhance Rapid Economic Growth

- Enhance women's and girls economic empowerment; and,
- Enhance the role and benefits of women in environmental management and protection.

b) Improved Human Development

- Promote equal access and success in education and training for women and girls and,
- Improve women and girls' reproductive rights, health and HIV/AIDS status.

c) Democratization and Governance

- Reduce violence against women and girls and improve their human rights; and,
- Increase women's access to all Levels decision-making, in particular in political and public spheres.

d) Improved Public Institutional Performance

- Implement a gender-based analysis and approach in all government departments and support institutional mechanisms for gender mainstreaming.

Specific priorities for action and interventions to achieve these outcomes during the PASDEP period include the following:

a) On enhancing women's and girls economic empowerment

- Promote women's participation in the formulation of economic policies and follow up of its implementation;
- Enhance rural women's equal access to and control over productive resources and services (land, oxen, extension, credit) in order to render them food secure and come out of the poverty trap;
- Enhance urban women's access to and control over economic resources and services (land, credit, employment, training);
- Reduce women's workload; and,
- Provide special social and economic safety and security to urban and rural poor women.

b) On enhancing the role and benefits of women in environmental management and protection

- Promote women's participation and empowerment at all levels;
- Increase women's access to information, improved technology, and alternative livelihoods;
- Create strong institutions and institutional mechanisms that guide and support efforts to address gender and environment issues; and,
- Ensure Adequate housing conditions, access to potable water, improved sanitation and fuel.

c) On promoting equal access and success in education and training for women and girls

- Build the capacity of structures to promote girls' education;
- Support needy female students to enter and continue their education;
- Increase pastoralist and agro-pastoralist girls' access to education;
- Increase girls' access to science and TVET with emphasis on areas that are traditionally considered men's area of expertise;
- Strengthen the program to increase access and literacy levels of women;
- Increase the number of female administrators and directors; and,
- Forge partnerships and collaboration with relevant sectors to address the problems girls/women encounter in accessing and succeeding in education.

d) On improving women and girls' reproductive rights, health and HIV/AIDS status

- Protect women's reproductive rights;
- Eliminate harmful traditional practices to women's health;
- Improve the health status of women and girls;
- Improve maternal health care services;
- Provide and ensure access to gender sensitive health information by men and women;
- Implement gender-sensitive HIV/AIDS prevention; and,
- Promote male involvement in reproductive rights and health activities.

e) On reducing violence against women and girls and improve their human rights

- Carry out massive and systematic training and awareness campaigns on national laws, policies as well as international laws on gender equality
- Repeal discriminatory laws in every region to ensure the human rights of women;
- Achieve strict enforcement of all laws;
- Eliminate all forms of violence against women; and,
- Promote constitutional guarantees of equality by removing the impediments of societal belief, harmful traditional practices and prejudices.

f) On increasing women's access to all levels of decision-making; in particular in political and public spheres

- Build women's and girls capacity in leadership and managerial skills and in exercising their rights; and,
- Initiate specific measures to increase gender-balanced representation within the political and public sphere.

g) On implementing a gender-based analysis and approach in all government departments and support institutional mechanisms for gender mainstreaming

- Create/raise public and institutional gender awareness to facilitate wider involvement in gender work and mainstreaming;
- Revise women's policy;
- Strengthen the national Women's Affairs machinery;
- Generate and disseminate gender disaggregated data for planning and monitoring;
- Integrate gender perspectives in all legislation, policies, strategies, programs and projects;

- Create/strengthen partnership, collaboration and networking among institutions working on gender; and,
- Assign accountability for gender issues in all government institutions.

In addition, as noted earlier, specific steps to review and strengthen the gender dimensions of data collection and analysis will be undertaken. For example, asking questions in surveys such as how consumption (and poverty) is distributed within households between men and women; to what extent women benefit from extension or irrigation, or analysis of the budget to estimate what the distribution of the benefits of public spending is by gender. The Gender Budget Analysis (GBA) is being used to analyze the impact of public expenditure on both women and men as beneficiaries and users of public services; and to enable the Government to address gender concerns in the budgetary process. In general, all ministries are responsible to implement women's 5-year action plan including allocation of budget.

7.13 Addressing The Particular Needs of Children

Children living in poverty are profoundly affected by development and poverty reduction policies. It is important to recognize that poverty reduction policies with a general focus on the poor may not automatically address childhood poverty in its entirety. In order to tackle poverty in a holistic and child-sensitive manner, it is important to consider the potentially differential impact of economic growth and poverty reduction policies within the household - on adults and children, males and females;

Equally importantly, given that children and young people (0-19 years) constitute approximately 55% of the Ethiopian population and have distinct developmental needs and experiences of poverty, they necessitate a special policy focus. Moreover, poverty in its many dimensions affects diverse groups including children in different ways - girls and boys, urban and rural children, able-bodied and disabled children and children of different ages. It is also important to recognize that children born into poverty are more likely to become impoverished adults and in turn pass on their poverty status to their children. Tackling childhood poverty can break long-term cycles of poverty -both life-course poverty and the inter-generational transmission of poverty.

Accordingly, Ethiopia has given focus to universal access to primary education, primary health services, reproductive health, rural growth, food security and gender equity all of which have positive impact on children. In order to address the concern of children in a coordinated manner, Ethiopia has formulated the **National Plan of Action for Ethiopian Children (2004-10)**. During the period of the PASDEP, the National Plan of Action for Ethiopian Children (NPAEC) will be reviewed, implemented and monitored. The plan includes many of the elements relevant to children's welfare reported on elsewhere in this document -for example through improved school participation, child health and HIV/AIDS interventions -as well as selected programs designed to protect from children abuse, exploitation, and violence; to improve the situation of children in especially difficult circumstances, such as those orphaned or affected by conflict; and to protect children from harmful traditional practices.

7.14 Governance, Capacity-Building, and Decentralization

7.14.1 Governance, Human Rights, Openness and Consultation

Ethiopia is committed to open, transparent, and democratic governance that respects the rights of all of its citizens, as enshrined in the Constitution.

During SDPRP, progress was made in a number of important areas: the consultation process of Parliament with stakeholders in preparation of new laws was put in place. For instance, consultations on the budget takes place every year. Consultation mechanisms include use of media including TV and radio to reach out to the population, as well as targeted consultations with, for instance, the private sector and civil society organizations. A Human Rights Commission and Ombudsman's Office were established, and the Commissioners and Ombudsman appointed. National and regional elections were held in May 2005. To increase transparency and judicial independence, the names and qualifications of approved judges have been publicly announced; and the NAP on gender has been prepared (see section on gender).

Under PASDEP, the capacity of MPs, Parliament and political institutions will be enhanced through strengthening law making and public consultation mechanisms and training for members of Standing Committees and federal and regional law making bodies, with basic training in policy formulation, legislative drafting, parliamentary working procedures, oversight functions and the role of MPs and political parties. The training is envisaged as short-term courses and workshops, and creating experience-sharing opportunities. The plan is to start at the federal level and then move to the regional bodies, giving first priority to women representatives. In addition, the capacity of professional Parliamentary staff in legal drafting, policy formulation and analysis will be strengthened, and new law-making procedures will be developed. Efforts will also be made for timely availability of parliamentary committee reports of debates and public consultations on draft laws. Furthermore, the working system of the Federation Council (FC) will be redesigned and strengthened through recruiting and training of professional staff and by fulfilling the necessary facilities and equipments needed.

During the PASDEP, there will be implementation of annual public audit reporting to Parliament, with a target of complete reporting by all federal institutions by the end of 2006, and of the regions by 2007/08. In addition, systems will be instituted of annual disclosure of accounting and performance information directly to the public; and as part of the decentralization process, emphasis will be placed on steps to ensure accountability and transparency at the local government level. Part of the rationale behind decentralization was to bring accountability and decision-making closer to the people, and a number of measures - described in the section on decentralization below- will be taken during the PASDEP period to strengthen grassroots participation and the responsiveness of governance structures at the local level. In addition, membership-based CSOs have an increasingly important role to play in facilitating interaction, and mobilizing groups and communities to participate in social, economic and political activities. Membership-based CSOs are important actors in helping

promote good governance, human rights, and the development of democratic institutions as new structures evolve.

The electoral process is at the center of democratic transformation, with every Ethiopian having the right to take part in his or her government through freely elected representatives. The electoral process, forthcoming local elections during PASDEP, and the National Elections Board of Ethiopia (NEBE) are all elements of this transformation.

During PASDEP, preparations will take place, and elections be conducted, for *woreda*, *kebele* and city councils; first in Amhara, Tigray, Afar, Oromia, SNNPR and Addis Ababa (2006/07), and then in Benishangul (2007/08) and Somali (2008/09). The NEBE will undertake a vigorous civic voter education program on the right to register, to vote, on voting procedures, and the duties and responsibilities of the people themselves in the electoral process. It will also address issues of dispute resolution, codes of conduct, and the roles and responsibilities of parties and civil society. The structure and capacity of the NEBE will be reorganized/strengthened to perform the functions expected of it.

To ensure that citizens' rights, as enshrined in the Constitution are respected, promoted, claimed and enforced, the Human Rights Commission (HRC) and Ombudsman's Office will both be strengthened as part of PASDEP, with the establishment of systems and procedures, and capacity-building activities and increased gender sensitivity. In terms of the Institute of the Ombudsman, guidelines will be developed and branch offices will be opened (see details in PASDEP Policy Matrix). The Institute will also undertake a major campaign to enhance the awareness of major stakeholders, including Parliamentarians, members of the judiciary, media, and civil society organizations, as well as to raise the awareness of executive organs with respect to people's rights, with a special emphasis on women and children. Moreover, the number of cases handled by the office will be increased and efforts will be exerted to increase the number of recommendations implemented.

To help ensure human rights of all Ethiopians are protected, there will be timely publication and dissemination of human rights legislations/conventions, and public awareness campaigns in the languages of all the nationalities and peoples, by the HRC. Processes will be designed and implemented for monitoring and handling complaints within the HRC, and a system of investigation and case management developed.

The role of civil society is critical, and a comprehensive program of reforms is planned under PASDEP with respect to the role of membership-based CSOs. This will include the establishment of participatory mechanisms at the local level and amendment of legal and administrative regulations for CSOs (see discussion below on governance in decentralization).

The independence of the judiciary is another important leg of the governance reform process. Accordingly, its efficiency and effectiveness will be improved through adopting a computerized database system in courts, implementing case management system and training of judges in the judicial training center. In conjunction with the Justice System Reform Program described later in this section, a study is being undertaken on judicial independence,

transparency, and accountability; and the findings will be implemented after it is completed in 2006/07.

In conjunction with the process of decentralization, a National Conflict Management Policy/Strategy will be drafted and adopted, and mechanisms and manuals developed for use in the regions following a series of stakeholder consultations.

Freedom of the press and free and improved access to reliable information as well as its dissemination by the media are to be promoted, and protected within a legal framework. Specific measures during PASDEP include establishing licensing procedures and inviting applications for private FM radio stations; starting to issue community radio licenses, and increasing the number of public and commercial radio stations in the regions. At the same time, the capacity of the Ethiopian Broadcasting Authority to manage technical issues such as frequency assignment and management to improve quality of broadcasting as per editorial policy will be strengthened.

The number of private and public newspapers in the country, the regions, and *woredas* will be increased, with the issuing of licenses on demand. A revised press law will be enacted; and additional training and education of media professionals of all types will be increased. Code of conduct will be developed and implemented by media professionals as well.

7.14.2 Civil Service Reform

Civil Service Reform Program aims to promote the development of an efficient, effective, transparent, accountable, and ethical civil service. The civil service reform program encompasses five major pillars: expenditure management and control, human resource management, service delivery, ethics, and top management system.

- a) ***Expenditure Management and Control (EMC)*** includes procurement, budgeting process, auditing and accounting reforms, review of fees and charges, and an overhaul of the internal and external control systems, development and introduction of new and improved financial administration as well as legal frameworks and associated regulations and directives;
- b) ***Human Resource Management (HRM)*** is about overhaul of the Civil Service Law, which was in place for many years, and reform of systems and procedures governing job classification and grading, remuneration and conditions of service, performance appraisal and time management, recruitment, selection, promotion and transfers, human resource planning, and the human resource management information system (HRMIS).
- c) ***Service Delivery (SD)*** is concerned with the development and introduction of a comprehensive service delivery policy, complaints handling mechanisms, and service standards to facilitate positive changes in the culture, attitude and work practice of government officials towards the provision of effective and equitable public services;
- d) ***Ethics*** focuses on the development and implementation mechanisms and best practices to combat corruption and impropriety, as well as, enhancing accountability and transparency within the civil service and the government.

- e) **TOP Management System (TMS)** involves reforms to enhance the quality and speed of decision-making through the development of top officials' and senior managers' capacity to manage, and to improve systems and process governing institutions policy development and management, annual and strategic planning, performance evaluation and monitoring, delegation of responsibilities, and reporting.

The major elements of the Civil Service Reform Program are strengthening staffing and incentives, and setting service standards for responsiveness to the public. Significant changes have been initiated and important results have been achieved in the last few years under the five pillars. The following are the most visible and significant reform achievements:

- New and improved policy frameworks and legislations such as the financial administration proclamation, the Federal Civil Service Law (still needs amendment), the National Service Delivery Policy, and associated regulations, directives, procedures and manuals;
- Federal and regional civil service staff trained on many of the new and improved legislations and working systems;
- Improvements in service delivery speed, efficiency and fairness in federal and regional institutions as an outcome of the initiatives to implement the National Policy for Service Delivery through a “*Quick Win*” reform approach;
- Attitudinal change among increasing number of civil servants, towards the need for accounting of resources under their control in a professional manner, searching for better ways of using scarce public resources, and responsiveness to citizens' demands and requirements;
- Establishment of a Federal Ethics and Anti-corruption Commission representing a solid step toward combating corruption through enhancing ethics, accountability and transparency; and,
- Encouraging trends in internalizing civil service management problems and the need to resolve them through systemic reform measures.

The objectives in the PASDEP period are:

- To ensure federal and regional governments operate budgetary systems showing informed and rational annual and medium-term resource allocation, reflecting government objectives and priorities, and making proper arrangements for acquiring, safeguarding and controlling financial and physical assets;
- To ensure federal and regional governments operate within comprehensive and complete legal frameworks for financial and human resources management and control, and have staff with significantly better skills in resource (financial and human) management and control;
- To ensure federal and regional governments are able to deliver efficient and effective services with equity and fairness in the treatment of the client public on a sustainable basis, and have staff with significantly better understanding, appreciation and management of public service delivery issues;
- To ensure federal civil service institution re-orient their planning, management and performance evaluation to strategic management issues, and management and performance evaluation;

- To ensure federal and regional governments have in place improved accountability to elected representatives with better understanding of, and commitment to, the proper conduct of government business, and safeguard of public properly;
- To continue efforts to fight against corruption through institutionalized, well-structured and systemized methods. This would be further strengthened through establishment of efficient, independent and appropriately resourced anti-corruption bodies;
- To enable the police and judiciary to have significantly stronger ability to investigate and judge cases of impropriety in civil service delivery; and,
- To ensure the media is able to investigate and report cases if impropriety and corruption in government and the civil service.

A number of specific measures will be taken to strengthen staffing and incentives. A medium-term remuneration policy is currently being developed and will be progressively rolled out for the Federal Government and the regions, with a target of implementation at local levels by the end of 2008. A Performance Planning and Management System has also been developed, and implementation has started in 20 federal agencies; it will also be rolled out to the regions and local institutions during 2006/07. A human resource management policy and supporting rules, and regulation are being finalized, including job evaluation and grading, terms of service, and a civil-service-wide HR management information system, for implementation during 2005/06-2007/08. Gender-responsive recruitment mechanisms will be instituted and measures taken to make the working environment more women-friendly, following completion of an on-going study. To strengthen top management, a program of annual management training will be instituted starting in 2006; and bulk training of civil servants will be undertaken on HR and performance issues, including in gender and HIV/AIDS.

To improve service delivery, in addition to the Business Process Reform and Public Service Delivery Improvement Policy already completed during SDPRP, performance and service-delivery baselines will be established for (a) core government functions, and (b) key services; and these will be publicized at the national, regional, and local levels. A Public Servants' Code of Conduct and supporting systems are currently being developed and will be approved and adopted during PASDEP. Special measures taken to strengthen governance and adapt tailor-made civil services reforms in the emerging regions, where capacity and service delivery are weaker than elsewhere.

The Public Service Delivery Improvement Policy (PSIP) was adopted by the Council of Ministers in 2001. Most federal civil service reform offices have established Customer Services and Complaints Handling Units and prepared service standards. The significance of the PSIP as a civil service-wide performance management system (including, the focus on self-scrutiny for attitudinal change, business process reengineering and restructuring); has been recognized by the Government of Ethiopia as critical to addressing implementation bottlenecks. Five key federal ministries (the Ministry of Finance and Economic Development, the Ministry of Trade and Industry, the Ministry of Revenue, Ministry of Transport and Communication, and the Ministry of Agriculture and Rural Development) together with their affiliated organizations have already undertaken service improvement

measures on critical service areas to bring about immediate results, resulting in, among other things, the much reduced service times for business licensing and customs clearances.

Implementation of medium-term and strategic financial planning by federal, regional, and local institutions in accordance with the new Financial Management Proclamation is to be completed by 2007. In addition, automated financial systems have been developed, and are expected to be adopted by all budgetary institutions by the end of the PASDEP period. The accounts and audits backlog will be reduced. Currently, all budgetary institutions at the federal level do not have backlogs. Standardized internal audit reports are being prepared, with a target covering all of the federal and regional institutions with the new system by 2008.

Procurement legislation is to be passed at the regional level, and all federal and regional institutions to be complied with the new procurement processes by the end of 2007. A major information and communications technology program will be implemented across the civil service (see PASDEP Policy Matrix for details).

Finally, tax reforms and public expenditure management are discussed in Chapter VI on macroeconomic framework. The main public expenditure developments, beyond the current adoption of the Macroeconomic and Fiscal Framework (MEFF), is that the successful budget reforms at the federal level will be rolled out to all of the regions, and then down to the *woreda* level. Regions will implement the new budget structure, the double entry and modified cash systems, and cash management directives, with completion in all regions by the end of 2007/08.

The other elements of capacity building are discussed under the various sectoral sections in Chapter VII (for example the technical and vocational education and training program, expansion of the university system, and major agricultural TVE T program).

7.14.3 Justice System Reform Program

The Justice System Reform Program aims at building the capacity of the justice system of the country by promoting the rule of law and the effective and efficient functioning of the system. It strives to realize these objectives by undertaking reforms in legal education and training, law making and law revision, the judiciary, and law enforcement institutions (the public prosecution service, the police, and the penitentiary system).

In order to increase the effectiveness and efficiency of the law enforcement institutions (the public prosecution service, the police, and the penitentiary system) a variety of reform enhancing capacity building measures have been put into effect. During SDPRP, a consolidated Baseline Study Report was produced covering all pertinent institutions of the justice system (federal and regional): law making bodies, courts, law enforcement institutions (the public prosecution service, the police, and the penitentiary system), and higher education institutions providing legal education and training, and civil society organizations.

The general focus of direction of the Justice System Reform Program is in most cases to increase the breadth and depth of the existing reform projects of the Program although it works on some new projects as well. Such a focus of direction would mean that:

- A reorganization of the Justice System Reform Program will be made in order to accommodate civil service sub-programs in it;
- The legal education and training system must be reformed such that it produces sufficient number of legal professionals capable of implementing the Constitution of the country satisfactorily;
- The legislative process will have to be reformed such that existing laws could be revised and reformed and new laws could come into being as effectively and efficiently as possible;
- The National Court Administration Reform Program that is in the process of being implemented is planned to be rolled out to the rest of all the courts through out the country;
- The effectiveness and efficiency of the law enforcement institutions (the public prosecution service, the police, and the penitentiary system) will be enhanced by increasing their capacities in general and by reorganizing them in particular; and,
- The implementation of the projects will be monitored and evaluated.

The Justice System Reform Program will soon sponsor a study that will critically assess adequacy and the relevance of the existing curricula of the law schools in the country and propose new curricula, new teaching methodologies, and a system of research and management and then oversee the implementation of the study.

All the revised and new laws that will be required for the effective implementation of the sustainable development and poverty reduction program will be legislated. As a result, new laws will be drafted and enacted on a number of key domains during the PASDEP program including revisions of civil and commercial laws, human rights, sexual harassment, children's rights, and HIV/AIDS-affected persons' rights. These laws will be first developed at the federal level and then promulgated in the regions.

The National Court Administration Reform Program has already been implemented at the federal level and in all the supreme courts and most of the high courts of the regional states. The lessons learned from this reform initiative are now in the process of being replicated in the rest of the courts of the country. A Study on the Independence, Accountability, and Transparency of the Judiciary in Ethiopia is in the process of being conducted.

Community policing systems will be piloted in the first two years of the program, and then scaled up in selected locations. Police institutions and training programs will generally be reformed and strengthened to train prison wardens and correctional officers in a new curriculum. Male and female prosecutors and judges will be trained together at the federal and regional level and the number of prosecution offices implementing the new Prosecution Information (PI) system will be increased as well. Compatible with each other and the court information system, new prosecution, police and prison information system will be implemented at all levels and forensic service laboratories will be established and be fully functional.

Criminal laws will be consolidated and crime prevention policies reviewed and revised during 2006/07. The penitentiary services will be strengthened and the standards of their management will be enhanced with a particular focus on gender and HIV/AIDS strategies in the penitentiary system.

In order to have adequate idea as to the extent to which the Justice System Reform projects are being implemented according to plan, the Program will evaluate the implementation of these projects in selected regional states.

A National Justice Information Center will be established providing better access and information/data on the justice system with a particular focus on gender issues for researchers, academicians and policy makers, etc. Moreover, timely publication of newly enacted laws and its dissemination in electronic and hard copies will be increased.

A Judicial Training Center has now been established making it possible to train men and women judges at all levels in the federal and regional courts during the PASDEP period with a target of training 25% of all the judges in the country each year from 2006 onwards. In addition, training will be provided to legal support staff, public prosecutors and lawyers. Modern equipment will be installed in courts and modern case management and recording systems will be instituted in them. The organizational structures of the courts will be reviewed and reformed in 2006 starting from the federal level.

7.14.4 Urban Governance

Urban issues are discussed in more detail in the section on spatial and urban development above. In summary, during SDPRP, progress has been realized in the following six major areas:

- a) Development of national policies, legislation and regulations. The national Urban Development Policy was adopted in March 2005. The main legislation adopted was the Re-Enactment of Urban Lands Lease Holding Proclamation 272/2002 and the Expropriation for Land for Public Purposes and Payment of Compensation Proclamation 455/2005;
- b) Capacity-building support, including training for councilors and technical staff for all nine regional states, Addis Ababa City Government and Dire Dawa City Administration, and development of planning units in the four largest regions;
- c) The development and implementation of national programs: the Urban Management Program and the Capacity Building for the Urban Management Sub-Program; donor-funded programs such as GTZ-funded urban programs; the urban component of the IDA-funded CBDS project and PSCAP support project;
- d) The completion of studies and assessments on urban land and real property markets, spatial and development planning, municipal finance, housing, human resource development, infrastructure and services development;
- e) Institutional and organizational reform supporting good governance. The Amhara, Oromia, SNNPR and Tigray regional states passed legislation creating the institutional and legal framework for urban local government authorities. Federal

legislation was passed establishing Addis Ababa (revised) and Dire Dawa as chartered city governments; and,

- f) During SDPRP, Addis Ababa City Government has pioneered new and innovative initiatives in many areas including urban renewal, organizational change and operational decentralization, financial management, land management, support to small and micro enterprise, job creation schemes and environmental services.

The main emphasis during SDPRP was on the development of policy, legal, regulatory and institutional frameworks supported by substantial capacity building efforts. What has been lacking being a major investment in housing, infrastructure and services, except in Addis Ababa. This investment will take place during PASDEP through the four “pillars” of the PASDEP Urban Development Strategy, and corresponding urban governance structures, described in the earlier sections. The focus on urban governance under PASDEP includes: (i) further strengthening the legal and institutional framework for urban local authorities, especially in the five remaining regional states, and for property markets and development control; (ii) capacity-building and implementation of financial systems; and (iii) a result-oriented M&E system for monitoring and evaluation of urban strategy.

7.14.5 District Level Decentralization

Decentralization of powers and duties to *woreda* level is being made effective along with the build-up of capacities at *woreda* and *kebele* levels. The devolution of power to regional states and then to the *woreda* is a centerpiece of Ethiopia's strategy for ending poverty by improving accountability, responsibility and flexibility in service delivery and increasing local participation in democratic decision making on factors affecting the livelihood of the grassroots population.

Following the big push to *woreda* decentralization at the beginning of SDPRP, progress has been made on a number of important areas. Regional constitutions have been revised with focus on the division of power and reorganization of structure to reveal accountability, check and balance at regional, *woreda* and *kebele* levels. The basic functional responsibilities are now transferred to *woredas* in most of the regional states. Human power had been deployed to *woredas* from the center at regional government and zonal government levels.

The required institutions are set-up for running basic public functions including the promotion of asymmetric decentralization to *kebeles* such as committees, School, Parent and Teacher Associations, etc. Some of the important progress include the development of draft fiscal decentralization strategy, the introduction of framework grassroots participation system and conducting pilot assessments to identify gaps including manpower planning survey, training needs assessment, bench marking survey.

The major focal areas of the District Level Decentralization Program in the PASDEP period are the following: fulfilling the required *woreda* manpower for the public institution; establishing efficient and effective structure at *woreda* level; establishing the system for broad-based participation and empowerment of the grassroots population; improving *woreda* block grant, allocation and utilization system and enhancing capacity for planning and

execution with the introduction of improved *woreda* planning manual; establishing systems for clear accountability, transparency and relationships of executives; establishing minimum standard service indicators and monitoring mechanisms for basic sectors; improving revenue sharing system and creating mechanisms for revenue enhancement at *woreda* level; ensuring the effectiveness of budget preparation and control system; building capacities of *kebeles* on all fronts and parallel to the missions of *woredas*.

In the short period, 2006/07, an integrated approach will be launched to address the problems of the rural population and capacity deficiencies observed in rural *woredas* and *kebeles*. Actions will be carried out for mainstreaming and linking the reform programs mainly the Civil Service Reform Program, the Justice System Reform Program, Information Communication and Technology Program and District Level Decentralization Program at *woreda* and *kebele* levels.

Attention will be given for the development of human resource development strategies at the regional level; deployment of personnel and ensuring facilities at the *woreda* level. A program of training will be organized and offered to the *woreda* councils, executive organs, and civil servants.

The organizational structures of *woredas* will be streamlined to render them more effective and efficient in service delivery. Some actions will be completed ahead of time. This includes gap analysis of *woreda* functional assignments and remedial actions; and promulgation of legislation in all regions for the devolution of power to *woredas*. Thus, there will be a clearly-defined functional assignments and a legal framework for the functional division between tiers of governments, wherever this is lacking.

As part of the next stage of *woreda*-level decentralization, major efforts will be made to mobilize and capture local and community input into the decision-making process. Manuals for grassroots participation will be developed and introduced in all regions at the *woreda* level during the next two years. Consultation with membership-based CSOs, especially women, will be conducted in a structured manner on a regular basis at the federal and regional level and forum and framework of consultation will be **established**. Local officials and stakeholders at the *kebele* level will be trained in grassroots participatory and consultative processes. Participatory structures for planning, monitoring and review will be established at the *woreda* and *kebele* level.

To strengthen budgeting and financing, frameworks and block grant formulae will be refined for *woreda* fiscal transfers. Assignment of expenditure and revenue responsibilities to *woredas* will be completed in all regions during 2006/07, and revenues identified and tapped for own-revenue enhancement at the *woreda* level. In addition, guidelines on planning will be prepared and financial management and control systems will be reviewed and improved.

Minimum service standards will be developed and implemented at the *woreda* level, defining indicators, norms and standards; these minimum standards will be publicly displayed and publicized among citizens. Actual performance against standards will be regularly publicized.

7.14.6 ICT Development

The major role of ICT development is to enhance sustainable development and poverty reduction, human resource development, GIS development and good governance. For details see Chapter VII section 7.5.5.

- To make ICT in Ethiopia competitive and help strengthen the human resource development endeavor;
- Strengthen ICT so that it will be supportive of public service system development; and,
- Establish a system so that public institutions and government offices get information from reliable international sources.

7.14.7 Engineering Capacity Building

The Engineering Capacity Building (ECB) initiative emphasizes that an enormous capacity-building effort has to be undertaken at all levels and sectors of the economic system simultaneously (e.g. agriculture, construction, industries, education, private and public sector). Four pillars: universities, TVET, the private sector, and standardization have been identified as the relevant areas for immediate, inter-related intervention to reach the goals of the ECB as quickly as possible. Focusing, coordinating and monitoring these sectors represent a major challenge, as they each already have their own independent structures and institutional imperatives. Each is at a different stage of evolution, and their overall contribution to successful industrialization has to be enhanced within the ECBP process.

The further design of engineering studies, technical teacher training, and the overhauling of the TVET system all have to happen in close cooperation between universities, public and private TVET institutions and the productive sector. Furthermore, private sector development reforms are essential to create conducive environment for investment, competitive markets and growth. Only then will the demand for skilled labor become strong enough to create the motivation for better education and training at all levels (including a private training market), and the provision of institutionalized training at the workplace. Finally, the standard-setting procedures will keep pace with market requirements, and then have to be introduced into educational institutions.

Some initial activities have been carried out at the beginning of the PASDEP period. Professional profiles for seven departments of Addis Ababa University technology faculty have been prepared; curriculums have been developed for four departments and preparation for their implementation is under way. To strengthen the contribution of stakeholders in the development of TVET, directives have been developed and disseminated to regions to strengthen the council at regional level and Boards at TVET institution level. Organizational structures, staffing plans and job descriptions have been developed for institutions that deliver 10-12 training modules. During the PASDEP, key activities will include: (i) university reforms to improve studies in technical and managerial fields, including the training of TVET teachers; (ii) overhaul of the TVET system creating one coherent system which includes formal and non-formal training for all sectors; (iii) establishing a professional,

customer-oriented quality assurance infrastructure; and (iv) increasing competitiveness in private business and strengthening local value chains.

7.15 Environment and Development

7.15.1 Environment and Poverty Linkages

Achieving MDG 1, which is halving by 2015 the number of people who earn less than one dollar a day and suffer from hunger, is one of the most important objectives of the Government of the Federal Democratic Republic of Ethiopia. This calls for an accelerated equitable economic development in Ethiopia.

Environmental resources are the foundation of social and economic development as they are the sources of goods and services needed for poverty reduction and economic growth. Their mismanagement coupled with their underutilization has so far reduced their contribution to Ethiopia's overall development.

Land is the critical resource and the basis of survival of all Ethiopians. Land degradation is thus a serious problem. Overgrazing and the expansion of farming into unsuitable land caused by increasing population without increasing economic productivity are leaving the land bare. Present key component problems in land degradation include loss of vegetation cover and biodiversity followed by escalating soil erosion, declining soil fertility, expanding salinization and soil compaction as well as desiccation through hydrological cycle disruption. Water and soil pollution, especially by agrochemicals, are becoming serious challenges in some areas.

About 70 per cent of the total area of the country is dry sub-humid, semi-arid or arid and thus vulnerable to desertification. Because it is mountainous, even the humid part of the country is prone to land degradation. Recurrent droughts and extreme weather events associated with climate change are compounding the land degradation problem.

Environmental degradation threatens physical and economic survival. It reduces the environment's ability to produce biomass for food, feed and household energy. It undermines prospects for fighting poverty and achieving sustainable development. Reversing environmental degradation and poverty eradication are, therefore, mutually reinforcing imperatives and have to be implemented together in Ethiopia's development initiatives. National economic development programs and national environmental regulatory systems must, therefore, be harmonized to optimize these initiatives. This means that it is urgent for Ethiopia to take the necessary action, as envisaged in target 9 of the MDG 7, to promote sustainable social and economic development through the sound management and use of natural, human-made and cultural resources and enhance the quality of life of its present generation of citizens without compromising that of its future generations.

Major Achievements During SDPRP

The following highlights the major achievements during the period of SDPRP:

- a) All regional states have established environmental agencies or have assigned environmental responsibilities to existing agencies. Amhara, Tigray and SNNPR states as well as the Dire Dawa Provisional Administration have issued their respective environmental proclamations. The Ministry of Water Resources, the Ethiopian Road Authority and the Ethiopian Electric and Power Corporation have established their respective Environmental Units. The other sectors are also to follow suit as required by the Environmental Establishment Proclamation;
- b) The following Proclamations, Strategies, Standards and Guidelines have been prepared:
 - Environmental Organs Establishment Proclamation;
 - Pollution Control Proclamation;
 - Environmental Impact Assessment Proclamation;
 - Guidelines on Technology Selection and Transfer;
 - Guidelines on Enforcement and Compliance in Industrial Pollution;
 - Guidelines on the Procurement of Environment Friendly Goods;
 - Guidelines on Integrated Pollution Prevention and Control;
 - Guidelines on Pollution Release and Transfer Registry have been developed to help industrial enterprises keep records of what pollutants they produce and how they manage them;
 - Guidelines on Industrial Waste Handling and land filling and Management; and,
 - Guidelines for undertaking sector specific Environmental Impact Assessment on development projects in 21 sectors.
- c) Various environmental awareness activities have been undertaken at the federal and regional levels (e.g. training on pollution control, urban waste handling and Environmental Impact Assessment; training on sustainable utilization and management of aquatic bio-diversity resources, etc.);
- d) Environmental Audit has been conducted in 36 industrial enterprises, 11 of which have subsequently prepared their respective environmental management plan (EMS);
- e) A model resource accounting for forest resources has been prepared;
- f) An Environment and Social Management Framework for the Productive Safety-net Program has been prepared;
- g) Action Plans for the enforcement of the Montreal Protocol on the Protection of the Ozone Layer, the Convention on Biological Diversity and the Convention to Combat Desertification have been prepared and are being implemented; those for the Climate Change and Persistent Organic Pollutants Conventions are being prepared; and,
- h) 81 drought prone *woredas* are implementing the Sustainable Dry Land Management Program to reverse land degradation and prevent desertification.

Challenges Encountered

The major challenges encountered in environmental protection and livelihood areas in Ethiopia include:

- Inadequacy of skills to mainstream environmental sustainability in socio-economic development initiatives;
- Lack of well documented best practices on environmental protection and the sustainable use of environmental resources;
- Shortage of committed experts for mobilizing local communities for environmental protection and the sustainable use of environmental resources for livelihood improvement;
- Shortage of transportation facilities to reach local communities;
- Inadequacy of coordination and collaboration among stakeholders on environmental management;
- Inadequacy of incentives for effective environmental management;
- Absence of certification of goods and services for the environmental sustainability of their production and provision processes;
- Inadequacy of popularization of environmental protection and the sustainable use of environmental resources;
- Shortage of human resources trained in environmental protection and the sustainable use of environmental resources;
- Absence of a national environmental information system;
- Insufficiency of financial resources for effective environmental management; and, the sustainable use of environmental resources.

7.15.2 Environment Goals and Strategies During the Coming Ten Years

a) Environmentally Sound Development Vision of Ethiopia

Our vision is to create a self-reliant Ethiopian population with a high quality of life in a productive environment, which assures equity between genders and among generations.

This Environmentally Sound Development Vision of Ethiopia can be achieved by ensuring social, economic and environmental sustainability in development. Overall, this is guided by the Environmental Policy of Ethiopia issues in 1997.

b) Strategic Goals Towards the Realization of the Environmentally Sound Development Vision of Ethiopia

GOAL A: Ensure community-led environmental protection and the sustainable use of environmental resources for gender equity and improved livelihood;

GOAL B: Rehabilitate affected ecosystems;

GOAL C: Enhance capacity of ecosystems to deliver goods and services, particularly biomass for food, feed and household energy;

GOAL D: Remove the adverse impacts of municipal waste;

GOAL E: Prevent environmental pollution; and,

GOAL F: Ensure proactively the integration of environmental and ethical dictates especially mainstreaming gender equity in development.

c) Implementation Strategies

- Promotion of a participatory and problem solving livelihood improvement framework for gender equity, environmental protection and the sustainable use of environmental resources;
- Partnership building with all stakeholders for environmental management;
- Development of tools for proactive environmental management that has mainstreamed gender equity;
- Improvement of a gender balanced environmental knowledge through awareness raising programs;
- Building environmental information and networking system;
- Promotion of investment in environmental protection and the sustainable use of environmental resources for the improvement of livelihoods; and,
- Resource mobilization and channeling for the required activities.

7.15.3 Envisioned Environmental Outcomes and Targets During the Period of PASDEP

Key Expected Outcomes

- a) Improved rural environment for gender equity and sustainable livelihoods;
- b) Waste management and Pollution reduction; and,
- c) Accelerated Environmentally Sustainable Socio-economic Development that ensures gender equity.

a) With regard to improved rural environment for gender equity and sustainable livelihoods:

- 125 *woredas* will have their capacities improved and will develop and implement their environmental management and sustainable livelihoods plans that mainstream gender equity and increase, among other things, biomass resources, food, feed and household energy.

b) Waste management and pollution reduction

- Existing textile, tannery, chemical, sugar, cement and beverage industries will develop and start implementing their respective Environmental Management System (EMS); and,
- 65 urban municipalities will have developed sound Municipal Solid Waste Management Plans that mainstream gender equity and started implementation.

c) Accelerated Environmentally Sustainable Socio-economic Development that ensures gender equity:

- Regional projects developed by various sectors will have their Environmental Impact Assessment Reports reviewed, including for mainstreaming gender equity;
- A national environmental management information and networking system will be established;
- Terms of reference (ToR) for ten different sectoral Environment Units will be developed and linkages will be established with the three existing (water resources, roads and electric power) as well as with any new sectoral units created and the ten Regional Agencies through the environmental information system and networking;
- Environmental awareness raising which has mainstreamed gender equity will be directed at students through environmental clubs and at the public through the mass media and publication produced for the purpose; and,
- A national capacity development plan for environmental sustainability, which promotes gender equity, will be drafted, discussed and launched.

7.16 Pastoralist Livelihoods and Development

Pastoralism constitutes a unique and important way of life for a large part of Ethiopia. There are some 12-15 million agro-pastoralists, living in 7 regions. The pastoralist areas are characterized by unpredictable and unstable climatic conditions as well as ecologically fragile environments. At the same time, the livestock population in the pastoral areas is high compared to the country's total, and the pastoral areas are rich in cultural and traditional heritage, flora and fauna diversities, valuable minerals and other resources. The regions are also characterized by frequent calamities (conflict and drought), food insecurity, and lack of adequate social services and institutions. Historically, the pastoralist areas have been sidelined in the development process: policies and programs have overlooked pastoralists' way of life and living conditions, and until recently they have experienced decades of socio-political exclusion. Because of all these factors, pastoralists have remained the poorest of the poor and become more vulnerable to a growing process of impoverishment. The SDPRP launched a process to rectify this situation, and a number of initiatives are now underway, which will be deepened and strengthened under PASDEP to address the needs of pastoral populations.

Poverty remains particularly intense in the pastoral areas, both in terms of low income and food consumption, and high vulnerability, defined in terms of the risk of sudden drops in income. Asset loss due to the death of livestock during droughts make it particularly difficult for pastoralist communities to recover from shocks. Furthermore, social indicators – whether they are literacy and education levels, or health status, are among the lowest in the country, as are the effective coverage of social services and infrastructure. Because of these concerns, and recognizing the unique lifestyle and needs of the pastoralist population, PASDEP involves a range of tailored program and policy responses that are specific to pastoralist areas and the people. These are described in summary here, and covered in more detail in some of the background strategy documents (such as ESDPs and HSDPs).

Institutionally, the major policy steps implemented so far by the Federal Government include securing the constitutional right of pastoralists not to be displaced from their own land, devolution of power to regions and hence *woredas*, and formation of pastoral institutions, including a Pastoral Affairs Standing Committee in the Parliament, and a Pastoralist Area Development Department (PADD) and Inter-Ministerial Board under the Ministry of Federal Affairs. The Pastoral Areas Extension Team and Pastoral Development Coordination Team, within MoRAD, are responsible for providing institutional support for the pastoral regions as well. In addition, the pastoral regional states have reformulated many of their institutions to incorporate pastoralism¹⁵ in their planning process. At the recent 8th Ethiopian Pastoralist Day, the Government has committed to continue supporting pastoral livelihoods, and the pastoral elders passed a 14 point resolution that urged the Government to address issues related to land use, conflict, marketing, social services, which the Government has undertaken to address in its strategy.

The main elements of the pastoralist program are outlined below:

a) Improving Pastoral Livelihoods and Asset Bases

Drought: Although the degree and impact of the drought varies across the pastoral regions, it remains a major cause of asset loss and resource depletion, leading to poverty. Droughts have become more frequent, making it more difficult for herds to recover¹⁶ and has a tendency to increase the number of pastoralists that 'depend' on food aid.

Livestock Marketing, Veterinary, and Livestock Feed: The inefficiency of livestock marketing in the pastoral regions contribute to pastoral food insecurity. In the dry season and drought period, the terms of trade between livestock and cereals becomes unbearable for the pastoral household.

The inadequacy and inefficacy of the veterinary services are also a bottleneck for pastoral development. Endemic diseases like Contagious Caprine Pnyemonia (CCPP), Contagious Caprine Bovine Pnyemonia (CCBP), Foot and Mouth Disease (FMD), anthrax, and parasites are causes of low livestock productivity and huge livestock losses. In addition, feed shortages resulting from drought, range degradation, and land shrinkage are major constraining factors to livestock development and pastoral livelihood.

Water Development and Environment Protection and Management: Even during normal years, there are severe water shortages for both humans and livestock, especially during dry season. The pastoralists share the available water with their livestock. This indicates the need for placing the appropriate measures to treat the water in order to make it safe for drinking.

¹⁵ For example, the Oromia Regional State and the SNNPR have recently established Oromia Pastoral Development Commission and Pastoral Development Commission for SNNPR while other regions have Pastoral Coordination Office under the Bureau of Rural Development.

¹⁶ According to estimate of Dahil (1976), the recovery period after a major depletion would take 6, 10, 24, 28 years for goats, sheep, cattle, and camels, respectively.

Furthermore, irrigation development schemes must be introduced and strengthened for the willingness resettlement of the pastoralists.

Natural Resource Degradation: Rangelands across the pastoral areas are increasingly encroached by shrubs and trees. Spreading weeds erode grass fodder availability at a regressive rate of at least 0.5% yearly. As compared with climax vegetation, more than 10% of the range cover in pastoral areas is highly deteriorated, with patches of depleted range especially in the fragile eastern plateaus, as well as in northeastern and southeastern regions, where grass self-regeneration capacity has sunk below the point of no return. By contrary, thousands of square km of humid grasslands is not grazed in western Ethiopia, due to the prevalence of the tsetse vector of trypanosomosis. The negative impacts of deforestation and overgrazing, due to indiscriminate tree cutting and abandonment of the traditional grazing rotation system, is also the major environmental constraints to pastoral livelihoods and development at large.

Finally, **infrastructure** in pastoral areas is worse than in other areas. The problem of infrastructure is not only a matter of lack but also when available are poorly developed and cannot cater for the pastoralists need. The lack of roads and accompanying flood also prevent the use of clinics and schools.

Strategies to deal with these issues are discussed in more detail in the strategy documents of the various sectors, but include, among others:

- Developing participatory drought management mechanisms: including community-based drought early warning systems, and mitigation measures;
- Encouraging livelihoods/asset diversification (fishery, agro-pastoralism, herd diversification, mining etc);
- Encouraging preservation of hay, and dry season range reserves, and focusing on timely restocking and de-stocking activities;
- Controlling drought-induced livestock diseases;
- Facilitating local and cross-border livestock trading, with better market information, credit provision, and certification for quarantine; restoring the stocker/feeder program through private or livestock cooperatives; and promotion of 'commercialization' of livestock production objectives;
- Establishment of MFIs that is tailored according to the pastoralists' nature and character to support pastoral activities in trading as well as livestock;
- Strengthened veterinary services, in both the public and private sectors, to enhance the possibility of controlling livestock diseases; and training of community-based animal health workers from the pastoralists;
- Expanding strategically-placed dry season water points, including traditional deep-wells, boreholes, and environmentally friendly water harvesting technologies;
- Strengthen participatory watershed development program and traditional and community-based water management schemes;
- Strongly controlling mechanism on factories/state farms polluting rivers, and encouraging traditional environmental protection and natural resource management mechanisms;

- Protection of good and fair range and upgrading of poor or depleted range;
- Strengthen micro-environmental management of base camps in line with agro-forestry /social forestry interventions;
- Encroachment control, reforestation, struggle against desertification;
- Retrieval and modernization of rotational range use systems;
- Joint management of national parks and nature reserves; and,
- Rehabilitation/construction of main and feeder roads (eg. Gambella-Elaya-Adura); and marketing infrastructure (stock-route, watering points, and medium range abattoirs).

b) Inadequacy/Lack of Basic Social Services

The inadequacy/lack of basic social services such as education and health is one of the major problems in the pastoral areas.

Education: The gross primary enrollment ratio for Afar, and the Somali regions are 13.8%, and 15.1%, respectively for the last year of SDPRP (2004/05). The key problems of education are access to schools, the poor fit with pastoralist lifestyles, and quality and efficiency problems due to shortages of trained staff, and cultural taboo towards sending girls to school.

Health: status and outcomes are uniformly lower in the pastoralist regions than elsewhere in the country, in terms of indicators such as infant and maternal mortality. Health system coverage is also lower in most of the pastoral areas. The available health facilities are found haphazardly distributed, lack medicines and medical equipment, and are short of staff. These factors are exacerbated by low levels of health education, Harmful Traditional Practices (HTPs), incidence of epidemic resulted from flood, and the prevalence of HIV/AIDS.

Recommended strategies include:

- Developing pastoral friendly curriculum and schooling calendar;
- Expansion of both formal and non-formal school systems by giving attention to alternative basic education, boarding schools, school feeding, training of teachers from the community (pastoral background), girls groups home education (this attract girls with age groups of 7-14 years);
- Encouraging and supporting CBOs to engage in the supply of teaching/learning materials;
- Vocational skill training for pastoral-system-drop-outs;
- Focus on mobile primary health education;
- Strengthen reproductive health program;
- Development of ANC;
- Alternative use of community based health development systems (HEW and TBA training and equipping them to facilitate primary and reproductive health education);
- Expansion of Extended Program of Immunization (EPI) through mobile system;
- Controlling HIV/AIDS expansion by targeting on urban and peri-urban dwellers, ex-soldiers, returnees/refugees, immigrants, and tourists;

- Construction of new/rehabilitation of health posts/health centers strategically situated, and improving their efficiency through staffing with incentives, supplies of drug and equipment;
- Strengthening of extension networks and outreach services in pastoral and agro-pastoral areas; and,
- Strengthened internal and external market support for various rangeland products, e.g. livestock, meat, milk, salt, honey, resin, wood, etc. and improve the business environment of pastoral economic activities.

c) Institutional Issues Related to Pastoralists

Pastoralism as a mode of production requires movement across boundaries and within boundaries for search of water and pasture. This movement when restricted often leads to disputes between pastoralists and other neighboring groups. The major causes of conflict are associated with range and resource limitation such as water and land, competition resulting from scarcity of resources, and due to HTPs. Hence, the necessary measures must be put in place to encourage pastoralists to settle voluntarily as well as for the provision of basic social services for those who prefer to travel and resettle in different areas. At the same time, traditional dispute-resolution mechanisms must be strengthened to decrease the degree of conflict in pastoral areas.

There are two broad categories of institutions in pastoral areas of Ethiopia. These are traditional pastoral institutions such as clans, tribes, lineage, age groups, resource use groups, etc. and the modern state political and administrative institutions. The two systems support each other to effectively function in pastoral areas. Accordingly, the need to capitalize on indigenous knowledge and institutions in moving forward should be strengthened.

Gender: issues are crucial in understanding pastoral poverty and poverty reduction. There are imbalances in terms of food production, resource sharing and consumption as well as ownership, and pastoral women are among the most marginalized groups in the country; and in many cases development interventions are not tailored to their specific conditions.

Land Tenure and Institutional Policy: Formal structures have had limited understanding of the pastoral communal range management system. As a result, this has created problems in the livelihood of pastoralists. Now, the Government has set a policy that protects pastoral lands although it is not yet implemented fully. For the promotion of economic alternatives and more efficient use of land, a proper understanding of pastoralism requires an understanding of the multi-dimensional reality of the pastoralist situation today which is a product of their changing relation within their system and their neighboring groups.

Measures to be pursued include the following:

- Designing participatory conflict management system, and strengthening indigenous institutions systems in managing conflict and peace building process;
- Capacity building of the pastoralists on local governance and leadership;
- Recognition of pastoral traditional institutions and the leaderships as important Ethiopian home grown institutions that have indispensable value for the pastoralist livelihood and the nations as a whole;
- Transformation of both pastoral and state institutions that governs the lives of pastoralists in Ethiopia based on traditional values and modern state functions are recommended. Establishment of Pastoralist Councils at regional and local levels firstly, to bring pastoralist together and; secondly, state and traditional institutions for good governance. This initiative has been undertaken in Afar and Somali regions, but not utilized well. Hence, Responsibility, authority and accountability must be vested on them with clear TOR;
- To manage the contemporary political, institutional and public policy and frameworks in pastoral areas of Ethiopia in a manner which is inclusive;
- To develop policy innovations that build on both pastoralist traditional norms, and modern political ideas, in order to generate a framework, which accommodates traditional and modern elements in a holistic manner;
- Enhancement of women 'stock raising lines' such as milk, small ruminates and industries as well as involvement of women in political and social spheres of public life;
- Creation of diversified income generating activities for women;
- Studying and acting upon customs and cultural elements that prevent women from participation in development; stopping female genital mutilation and encouraging the application of laws against harmful traditional practices;
- Implementation of the law on land property right and formulation of by-laws as to their right;
- Developing participatory land use and ownership policy based on traditional communal land use system;
- Strengthening agricultural extension services through the efficient implantation of TVET and FTC programs and institutional support services in the process of pastoral development;
- Strengthened research -extension-pastoral/agro-pastoral linkages;
- A strong network between pastoral concerned forums, NGOs and policy makers;
- Involvement of minority groups in development schemes;
- Consultation of the pastoral community in designing and implementation of development projects that concern them;
- Helping them benefit from investment, tourism and industries in their areas; and,
- Understanding and balancing the economical advantages with the social costs.

7.17 Youth and Employment

Youth (defined as those aged 15-29) make up 28% of the population. They represent the future of Ethiopia, and it is important that they have productive opportunities to grow into adulthood, and to contribute to society and the economy. Ethiopia's first National Youth Policy was formulated in 2004, with the broad objective of encouraging the active participation of youth in the economic, social, and cultural life of the country. The policy addresses a wide range of issues ranging from HIV/AIDS to environmental protection and social services, although the most central elements relative to PASDEP relate to education, training and the employment of youth.

According to the policy, the Government is developing a Multi-sectoral Youth Development Strategic Plan, and two corresponding five-year Youth Sector Development Programs (YSDP), the first of which covers the PASDEP period, 2006-2010. The youth policy promises to facilitate the growth of self-employment and formal/informal employment opportunities, and to create conditions conducive for rural youth to acquire farming plots and grazing lands on the basis of existing laws. The policy outlines a vision for creating an enabling environment for youth to benefit from education and training, and for out-of-school youth to develop their reading and writing skills through adult education services. The policy is relatively new, and the Ministry of Youth and Sports believes that in 2006 it will be in a position to conduct a first assessment of the policy's impact, and plans to review the policy after implementation has begun, and revise it if necessary.

The new education policy in Chapter VII focuses on producing a skilled labor force, rather than a large cohort of relatively unskilled secondary graduates, as was the case in the past. The TVET program described in Chapter VII is a central part of this strategy. During the PASDEP, the effectiveness of technical training will be upgraded to provide more demand-driven training through closer linkages with the labor market, and to increase the link with employers and the work force. The labor law codifies the practice of apprenticeships and allows for contracts to be entered with those at least 14 years of age. For rural youth, the Agricultural TVET program aims to reduce unemployment, create trained agricultural practitioners with increased productivity, encourage self-employment, and create more market-oriented farmers.

Since many youth are engaged in the informal sector, particular attention is being given to the role of micro and small enterprises development (MSED). The MSED Strategy underpinning PASDEP pays particular attention to female-operated enterprises, school dropouts, and unemployed youth. Under this strategy the Government will provide entrepreneurship and business management training, appropriate technology research, market support, information and counseling, business support services, and help with access to credit and basic infrastructure for MSEs.

Employment and Labor Force Issues: The main story regarding the labor market is the rapid growth of the workforce, as a result of high population growth. Combined with fewer farming opportunities for the next generation, and relatively slow creation of new jobs in the modern sector, this is resulting in growing unemployment and under-employment pressures.

Economic activity rates in urban areas are relatively low, and have been declining somewhat (from 66% in 1999 to 58% in 2003), although this is to some extent a reflection of growing school enrolments that keep youth out of the labor force longer. The incidence of unemployment was relatively lower for those with non-formal education (9%) and holders of diploma and above (12%). Underemployment, on the other hand, is very high, especially among youth. Surveys of the last 5 years (1999-2004) show a slight decline in urban unemployment among males, and a slight increase among females; and also that the duration of unemployment has shortened. As in most countries, unemployment is highest among youth (who have less marketable skills and experience, but who also tend to live with their families, and often not subject to the same immediate pressures to find work that apply to slightly older married men and women.). It is also generally higher among women than men. Of wage employment, the public sector still accounts for about 40%.

Wages are low, and for the less educated, wages in urban employment are just about at the poverty line. Wages rise dramatically with education levels, for example persons with even basic non-formal education make about 23% more than illiterates, and those with higher education making 148% more. While schooling clearly pays, in the future it is likely that completing primary and secondary education will be less of a guarantee of finding employment than it was in the past, as the labor market becomes more saturated. Nonetheless with the expansion of education, the average skill level of the workforce is increasing, and this should pay off in productivity gains. Although wages are lower than most countries, potentially making Ethiopia an attractive location for labor-intensive manufacturing and export production, productivity is also low – too low at the moment to be highly attractive to FDI.

There are big urban-rural, formal-informal, and gender gaps in employment and wages. Labor mobility is limited, especially between rural areas and towns, although there is increasing evidence of ‘step-migration’ from smaller to larger towns. As in most countries, immigrants start out near the bottom of the urban job market, but there is evidence that their lot improves over time. The informal sector is large, and pays about a third less than more formal sector employment¹⁷. Definitions vary, but by one estimate showed that the informal sector accounts for 57% of the workforce. The constraints appear to be related mostly to access to capital, and of course to skill and education levels. Panel data (1994-2004), however, does show an increasing movement over time from informal to formal jobs.

The solutions, to be pursued in PASDEP include enabling faster job creation (by opening up private sector growth, maintaining stability, and strengthening the investment climate); building human capital through education, TVET, and special efforts to provide skills training to the unemployed; and selected public works employment interventions (discussed under the urban and food security sections).

The goal of the policy is to make sure that the youth gets enabling environment, benefit from the exercises of democracy, good governance, social, cultural and economic activities in an institutional manner.

¹⁷ Note this is based only on ‘paid’ informal sector employees; the average among all, especially family workers, is almost certainly lower.

The major elements of the youth policy include the following:

- Youth, democracy and good governance;
- Youth and economic development;
- Youth and education;
- Youth and health;
- Youth and HIV AIDS;
- Youth and social evils;
- Youth, culture, sport and entertainment;
- Youth and environmental protection, and,
- Vulnerable youth.

CHAPTER VIII

Financing the Plan

Financing the cost of social and economic development programs and strategies is one of the requirements to achieve the goals and objectives of the PASDEP and hence the MDGs discussed in the previous chapters. Accordingly, the implications for program financing and adjustments are examined in this Chapter.

On the basis of the envisaged macroeconomic policies and the expected outturn during the PASDEP period, the costs of the programs for poverty-oriented sectors have been assessed, consistent with a program that sustains macroeconomic stability during the medium term. Regarding Ethiopia's public expenditure management, it is important to note at the outset the significant pro-poor bias in spending allocations, and the effort being made to cover recurrent expenditures through domestic revenues.

The MEFF is the tool used by Government for establishing the resource envelope and broad sectoral allocations, in line with its overall policy objectives of ending poverty and achieving the MDGs targets, while maintaining fiscal discipline. Although priority is given to poverty-oriented sectors, resource allocation in the MEFF is constrained by the projected availability of domestic and external resource inflows.

The MEFF is an instrument by which three-year resources are identified on the basis of the macroeconomic framework. A medium-term fiscal framework is developed at the beginning of each budget cycle, indicating expected resource mobilization both from domestic and external sources for the coming three years, and the broad allocation of those resources to the key sectors. The MEFF is reviewed at the beginning of each budget cycle.

The process starts with establishing the overall resource envelope. Once the resource envelope is determined a careful estimation is made of federal government non-discretionary and discretionary recurrent outlays. The remaining balance is subject to the allocation between federal capital expenditure and the regional transfer. In practice, priority is given to regional transfers.

In principle the MEFF, encompassing GDP, exports, imports, money supply, and government income and expenditure forecasts will be used annually to program actual spending on the PASDEP for the 3-year cycle. An extended version of the MEFF (stretching to 5 years) has been used here to illustrate the broad financing and affordability implications of the PASDEP. But it should be emphasized that these 5-year projections can only be indicative.

With regard to programming PASDEP spending, two approaches could be adopted. One may start with articulating objectives and identification of targets to reduce poverty and look for resources to finance those programs. It is also possible to start with a thorough assessment of available resources and to allocate them to sectors within this resource constraint. The second approach is more realistic, and has been adopted here, with an expectation that actual spending will be adjusted on a year by year basis if more (or less) resources become

available. Financial projections (revenue and expenditure) are reviewed in relation to the MEFF as well.

During the PASDEP period, the budget allocated for implementation of development and poverty-oriented sector programs should be aligned with the country's financial capacity (revenue, external loan and grants) within the framework of stable and sustainable medium term macroeconomic program. Recurrent budgets are usually covered through domestic revenue while the cost of capital expenditure, on a progressive basis, will gradually be covered from domestic financial resources. In this regard, appropriate steps will be taken to augment savings to cover increased share of capital outlays.

The financial allocation provided for the program period is based on projections and thus should be considered as indicative of anticipated financing requirement of the next four years (2005/06 is the completed budget year). Hence, the allocated budget for the program period will be further reviewed as the respective executive bodies submit their economic and social development plans in due course.

Note however that the Government has also fully costed the program on the basis of what it would take to reach the MDGs. The details of these costs and the implied financing gap discussed under each of the scenarios are presented in Annex Table 8.1. The Government believes that the MDGs represent a minimum set of aspirations for the Ethiopian people, and every effort will be made to close the implied financing gap.

The medium term resource envelope and projected overall spending under the MEFF base-case and high-case scenarios are discussed in the next sections.

8.1 Medium Term Resource Envelope and Projected Overall Spending (Base-Case Scenario)

As indicated in Chapter VI earlier, a range of measures will be taken to continue to increase tax revenue, strengthen administration, and reform the tax systems during the period of the PASDEP. In parallel with the Government's effort to raise domestic sources of finance, efforts will be geared towards generating increased inflows of external finance. During the medium term, external finance is expected to play an important role in achieving the desired growth and poverty reduction outcomes. Under the medium-term forecast, tax revenue is expected to increase to 17% of GDP by the end of the PASDEP (2009/10).

8.1.1 Projecting the PASDEP Resource Envelope

A total resource (domestic revenue and external grants) has increased from 20.1 billion Birr in 2004/05 to 29.7 billion Birr in 2005/06 and is projected to increase to 46.8 billion Birr by the end of 2009/10. External grants are projected to increase only modestly from about 4.6 billion Birr in 2004/05 to 8.6 billion Birr by the end of the PASDEP period. It is hoped that a more rapid increase will take place in the spirit of scaling up to help Ethiopia reach the MDGs, but to be cautious a conservative approach is adopted here, assuming no better than

the historical trend in aid receipts is forthcoming. Domestic revenue is projected to increase to about 38.2 billion Birr in 2009/10 from 15.6 billion Birr in 2004/05 and 22.5 billion Birr in 2005/06 representing an annual growth rate of about 3% higher than that of nominal GDP during the same period.

Projected domestic revenue plus grants available for allocation between poverty reducing sectors and other discretionary and non-discretionary government commitments are estimated at 184.3 billion Birr for the whole program period (2005/06-2009/10). Specifically, domestic revenue is expected to reach at 145.8 billion Birr in the program period. The remaining external resource is expected to reach at 8.6 billion Birr by the end of 2009/10 from 4.6 billion Birr in 2004/05. The total projected external assistance (loan and grants) in the PASDEP period is expected to reach at 38.5 billion Birr.

However, these are not the only resources that will finance total expenditure in the next five years. Other sources of financing include external project loans, HIPC debt relief, and domestic bank borrowing. The estimated amounts from these sources are going to finance the ensuing annual deficit during the program period.

In view of the difficulties in projecting external finance flows to the country, as loans and grants are determined by donors, the projections of external resource flows indicated above are made simply by following past trends. Hence, the projection provided here did not take into account the scaling up efforts that is being advanced globally to reach the MDGs. Therefore, the Government believes to pursue this modest approach until a concrete background is presented regarding the increase in external finance flows.

It is important to recognize that there is a lot of financing, and spending, for elements of the PASDEP program that do not show up in the government budget, and thus do not show up in the MEEF and public fiscal framework discussed here. These include things such as: financing by some external donors (for example through the Global Fund to Fight Tuberculosis Malaria and AIDS, along with other similar 'new' non-governmental sources of financing in the health sector). They also include direct financing of projects by some bilateral donors who do not channel their funds through the budget, and commodity aid (for example the supply of drugs and condoms from some donors, or some proportion of relief aid that supports the food security program); spending by local governments/municipalities out of their own resources, which have taken an increasing share of spending in urban areas; and services and programs funded by NGOs, which are significant in areas like food security, health, non-formal education, and rural development. There is also spending by public utilities from their own resources, which cover much of infrastructure investment, and thus do not get funded out of the government budget in the MEEF. As a result of all these factors, the public budget framework, which is made up of all spending out of tax revenues and the donor grants and loans that are provided to the Government of Ethiopia through the budget, can only ever show a portion of the total development program spending. This is a situation, which applies in all developing countries, and is not unique to Ethiopia. Attempts have been made to reconcile all sources of funding but by definition governments can only ever have partial information on all of these expenditures and activities that do not pass through their budgets, so there is inevitably a degree of estimation involved in the total financing plan.

8.1.2 Projected Expenditure Allocation

a) Reconciling the Overall Cost Requirements with the MEFF

The costing of the PASDEP draws from the just-completed MDGs Needs Assessment exercise, a long-term resource needs study covering a period of 10 years, 2005/06-2014/15, conducted by the MoFED in collaboration with poverty-oriented line ministries. The exercise has taken a holistic approach through considering all sectors/themes that are pertinent to poverty reduction, and its ultimate eradication. Accordingly, the program costs articulated for each sector/thematic area are bottom-up and intervention-based. They represent what it would take to meet the MDGs. The focus has thus been broadened to include infrastructure (telecom, power, irrigation, and rail), and private sector development, in addition to the traditional pro-poor sectors that are familiar from the previous MEFFs: education, agriculture and rural development (including food security), roads, water and sanitation, and health. Furthermore, the Needs Assessment has also covered costs for those population and gender program interventions that are not already mainstreamed within the sectors. The estimate has taken into consideration experiences gained from resource mobilization efforts of other government bodies and resources mobilized outside the Government.

The projection was based on what is expected to be mobilized from various sources including: the treasury; income from government agencies; resources to be mobilized from the private sector and the community in the form of cash, materials, and labor; income from NGOs; and external loans and assistance. The MDG Needs Assessment thus shows substantially higher levels of expenditure than are reflected in the PASDEP. There are two main reasons for this. One is that the Needs Assessment estimates show the total costs of the programs, large parts of which are funded by stakeholders outside of the Government, or from sources other than the government budget. For example, much of the expenditure on telecommunications and power system expansion are funded by the ETC and EEPCo respectively, using their own funds, supplier credits, and on-lending facilities financing; almost all of the HIV/AIDS program is being funded by non-traditional external donors; and there are substantial community, NGO, and private sector contributions in many sectors for example in education and rural water supply. To make the cost estimates emerging from the MDGs Needs Assessment and the line ministries comparable with the existing MEFF framework used to forecast the PASDEP budget envelope, the following adjustments were made:

- The parameters of the financing strategy as outlined in the MDGs Need Assessment exercise for each sector/thematic area have been reviewed and applied, estimating the amounts that will be required for each sector out of the public budget in accordance with projected levels of private sector financing, cost-recovery, and community, NGO, and local government financing;
- Investment costs to be borne by public companies from their own internal sources have been identified (for example the whole of telecom and rail costs and the bulk of the investment costs for power apart from the Rural Electrification Program); and,
- Program costs that are to be covered from external off-budget sources outside of the public domain have been identified (programs under this category include HIV/AIDS

through the Global Fund and some cost components for gender and development as well as population and development).

These total cost requirements cannot be fully aligned within the existing MEFF framework, as some of the costs do not fall within the public domain (that is, the proclaimed public budget from treasury, external loan, or external assistance sources). As noted earlier, the MDGs Needs Assessment just indicated the total cost requirements of each sector, irrespective of their source of finance.

Accordingly, the total projected outlay required for the implementation of the planned programs for overall development and for poverty-oriented sectors will be 332.6 billion Birr; of which 99 billion Birr is allocated for recurrent expenditure while 234 billion Birr is allocated for capital expenditure. This implies that out of the total finance required for the next five years 70% is assumed to be allocated for capital expenditure while the remaining 30% is allocated for recurrent expenditure. This financial allocation is a testimony of the government's determination and commitment to provide adequate resources for the continued development of the sectors to end poverty through successive and sustainable development efforts. The projected PASDEP program cost requirements based on the MDGs Needs Assessment is presented in Table 8.1 while the detailed program cost differentiated by capital and recurrent is presented in the Annex Table 8.1. The projected PASDEP program cost requirements as a ratio to GDP is presented in Annex Table 8.2 as well.

**Table 8.1: Projected PASDEP Program Cost Requirements Based on the MDGs Needs Assessment
(In Million Birr)**

	2005/06	2006/07	2007/08	2008/09	2009/10	Total
Agriculture & rural development and Food security	5,017	3,784	3,506	3,953	5,798	22,058
Irrigation	2,150	3,785	3,507	5,031	6,282	20,755
Education	8,236	9,372	11,612	12,620	11,902	53,742
Health	4,725	5,677	6,872	8,133	9,473	34,880
Water & sanitation	3,816	4,174	4,015	1,768	1,815	15,590
Roads	5,126	6,307	9,533	10,907	11,287	43,160
Power	9,728	11,964	9,941	11,319	7,670	50,622
HIV/AIDS	578	881	1,214	1,526	2,001	6,200
Population & development	99	666	193	240	115	1,313
Private Sector development	2,737	2,737	3,293	3,293	3,293	15,353
Urban housing development	4,850	4,850	5,834	5,834	9,334	30,702
Gender & development	161	130	120	112	118	641
Telecommunication	4,680	5,841	8,566	9,649	8,814	37,550
Grand Total	51,903	60,168	68,207	74,385	77,902	332,566

It is recognized that these estimates are approximations, and further work will be needed in the next year of the PASDEP to refine the cost allocations for each sector as better costing and financing information becomes available. In reality, these projections (and actual funding levels) will be refined each year for the coming four-year period in the MEFF/budget formulation process.

In addition, the levels of desired spending projected by ministries in the MDGs Needs Assessment for the early years may not just be realistically achievable immediately, either because of the capacity to implement (for example in construction, or hiring and training of new staff), or because of financing constraints in the short term. As discussed earlier, to the extent there are constraints like these, the spending will be scaled-up as quickly as possible as soon as financing becomes available and/or capacity bottlenecks are overcome.

b) Allocation of Resources within MEFF

Expenditure allocation in the MEFF process involves an assessment of new expenditure demands, re-allocation from non-priority to priority sectors, and the regional distribution of resources. The annual process also includes consideration of the allocation between federal and regional governments, as well as between recurrent and capital spending. In the most recent medium term framework (2005/06-2007/08), the expenditure requirements and projections focused on allocating expenditures in line with PASDEP targets, and improving the regional distribution aspects of resource allocation. The MEFF paid particular attention to increasing expenditure on poverty-oriented sectors including agriculture and rural development and water and sanitation, water resources development (irrigation), roads, health and education, as well as financing rural electrification as an additional poverty-oriented program.

Allocation of Resources for Poverty-oriented Sectors During PASDEP: Although utmost priority is given to the poverty-oriented sectors, the available resources may not be sufficient to meet the requirements of the sectors. This would indicate that sectors have to scale-down part of the expenditures for certain components of their programs. The anticipated allocation of resources for poverty-oriented sectors for the PASDEP period, based on extending the current MEFF projections for the base-case scenario is shown in Table 8.2 below. It should be emphasized that these are indicative sector ceilings based on the current MEFF, and will be adjusted depending on actual requirements and resource availability during the annual budget cycle each year.

In establishing indicative spending levels for sectoral programs, attempts have been made to assess the absorptive capacity of the respective sectors based on past trends and their record of budget implementation. The launching of capacity-building programs and the administrative and service delivery reforms currently underway are expected to enhance execution capacity of both federal and regional implementing bodies during the PASDEP period.

As depicted in Table 8.2, the total projected program costs for development and poverty-oriented sectors (recurrent and capital) is expected to reach at 44.3 billion Birr by the end of 2009/10 from 14.0 billion birr in 2004/05. Total projected allocations within the MEFF framework for the poverty-oriented sectors for the full period of the PASDEP (2005/06 to 2009/10) amount to about 174.9 billion Birr (76.9%) from the total projected expenditure of 232.1 billion Birr for the entire program period, with agriculture and rural development and education accounting for the lion's share of projected program costs.

Table 8.2: Indicative Program Costs Within the MEFF Framework for Poverty-oriented Sectors Under Base-Case

	2005/06	2006/07	2007/08	2008/09	2009/10	5-year Total
Agriculture & rural development and food security	4,584	3,343	3,155	3,558	5,218	19,858
Irrigation	1,965	3,530	3,262	4,729	5,654	19,140
Education	6,618	6,888	7,166	7,611	7,776	36,058
Health	1,291	2,555	3,161	3,822	4,547	15,376
HIV/AIDS		220	304	382	500	11,406
Clean water and sanitation	2,709	2,923	2,811	1,768	1,815	12,026
Roads	4,147	5,317	8,761	10,187	10,587	38,999
Rural electrification	1,610	3,027	2,023	1,426	1,024	9,110
Urban housing development		3,395	4,200	4,259	6,049	17,903
Others ¹⁸		1,377	1,206	1,233	1,150	4,966
Total poverty-oriented sectors cost	22,924	32,532	36,049	39,102	44,319	174,926
Projected non-poverty recurrent cost	9,230	8,914	8,719	8617	8,475	43,955
Projected non-poverty capital cost	4,398	3,620	2,451	2078	666	13,213
Projected total non-poverty cost	13,628	12,534	11,169	10,695	9,141	57,168
Projected total expenditure	36,552	45,066	47,218	49,797	53,460	232,094
Poverty-oriented as % of total expenditure (%)	63	72	76	79	83	75 ¹⁹

Allocation for Other Non-Poverty Sectors: Outlays for defense expenditure will be maintained at constant level during the program period as a requirement for maintaining the minimum necessary level of security of the country. Debt servicing is funded on the basis of the schedule of payments considering the debt relief that accrues in each fiscal year. The allocation for other sectors that are focused mainly on administrative and government service delivery is constrained to make sufficient resources available for the poverty reducing sectors. Total outlays under this category are projected to decline from 13.6 billion Birr in 2005/06 to 9.1 billion Birr by the end of 2009/10.

Overall Allocation: As depicted in Table 8.2 above, total projected allocations for both poverty-oriented and non-poverty sectors increase from about 24.8 billion Birr in 2004/05 to about 53.5 billion Birr by the end of 2009/10. Overall projected total spending (for both pro-poor and other sectors) during the period of the PASDEP (2005/06-2009/10) stands at about 232 billion Birr.

¹⁸ Others include projected costs on private sector development, population and development, and gender and development. The allocated finance is in the ratio of 76:17:7, respectively.

¹⁹ Five-year average.

Capital expenditure accounts for the bulk of projected spending, particularly in growth-enhancing sectors such as agriculture and rural development, roads, and power. In addition, the food security program is financed under the capital budget. Furthermore, spending on those sectors is front-loaded, given the Government's focus on infrastructure expansion early in the program to stimulate the envisaged economic transformation. Capital spending on the human development sectors is also projected to increase, although the majority of spending in these sectors will inevitably be recurrent. Capital expenditure is projected to increase from 11.3 billion Birr in 2004/05 to 31.3 billion Birr by the end of the program period. On the other hand, out of the projected total allocation, the recurrent cost is expected to reach at 22.1 billion Birr by the end of 2009/10 from 13.2 billion Birr in 2004/05.

8.1.3 Financing Gap and Prioritization Within Sectors

In order to reconcile the financing system with the principles of the MDGs, the financing plan in both the base and high-case scenarios has been considered within the same macroeconomic fiscal framework. Therefore, it is essential to address the implications of the resource gaps within the two types of deficit financing mechanisms. In the first case, the source to finance the gap is already determined whereas in the second case, the source of additional finance needed is not determined. Moreover, it is important to note that the magnitude of the second type of deficit financing could vary depending on the scenarios considered. In the high-case scenario, which is presented in the next section, the resource requirement is relatively smaller than the base-case scenario.

As has already been indicated, the base-case growth scenario is consistent with the resource required to achieve the MDGs, as articulated in the MDGs Needs Assessment synthesis work (MoFED, 2005). Thus, the allocations within the MEFF framework need to be financed if the targets articulated in the various sectors are to be achieved. Achieving and sustaining the growth target (a minimum of 7% per annum during the period of the PASDEP) also calls for front-loaded infrastructure investment.

In the Government's view, there should not be a compromise on the targets set for the period of the PASDEP under both scenarios as it will not be consistent with the guiding principles of accelerating development and meeting the MDGs. There could, however, be reallocation of the resources within pro-poor sectors to components of the programs to ensure maximum achievable targets are maintained. Thus, what is sought under this scenario is for additional external finance commensurate with the fiscal gap that remains to be financed over and above the projected levels of finance from both external and domestic sources consistent with maintaining macroeconomic stability during the PASDEP period.

Based on the foregoing, the resource requirement of the base-case scenario is presented as follows. Given 2005/06, the first year of the plan, is the current budget year, budget deficit as well as financial resources to close the gap have been taken as it is in this discussion. In 2006/07, the projected total resource (revenue and external grants) is estimated at 31.5 billion Birr while total expenditure is 45.1 billion Birr. Hence, budget deficit (including grants and loans) will stand at 13.5 billion Birr (10.2% of GDP). Of the total deficit, 7.1 billion Birr (5.4% of GDP) is expected to come from external grants and loans as well as from internal

borrowing while the remaining 6.2 billion Birr (4.7% of GDP) is projected as a gap to be financed. Similarly, by the end of the plan period, total resource is projected to reach at 46.8 billion Birr while total expenditure is projected to reach at 53.5 billion Birr. Consequently, budget deficit (including grants and loans), will stand at 6.7 billion Birr (3.3% of GDP). Out of the total gap to be financed, 6.5 billion Birr (3.3% of GDP) is expected to be financed from external grants and loans as well as from internal borrowing while the remaining 0.1 billion Birr (0.05% of GDP) is projected as a gap to be financed.

Under the PASDEP period, the total gap to be financed in this scenario is projected to reach at 10.2 billion Birr or US\$1.2 billion based on the average current foreign exchange rate. This implies the need for drastic efforts to mobilize the resources needed to fill the gap.

This gap (gap remaining to be financed) varies from a maximum of 6.4 billion Birr to a minimum of about 0.1 billion Birr, depending on the year, generally being higher in the first few years due to the need to front-load investments in infrastructure.

To the extent that the gap can still not be closed, there will be prioritization within the sectoral programs to protect spending on the highest priority interventions, identify which programs will be scaled back, and which additional activities will be undertaken first as new financing comes available. This prioritization will take place on an annual basis in consultation with the regions and line ministries. Box 8.1 below gives some indication of the sorts of considerations that would be adopted.

In reality, the level of financing gap will become clearer in each three-year cycle as resource availability and sectoral funding requirements are firmed up; and, as noted earlier, interventions will be prioritized to take account of available funding.

In all sectors, there are on-going activities that extend into the PASDEP period. In general, first priority will have to be given to funding completion of these, especially in the case of capital works in sectors such as roads, water supply, and power, where on-going construction and existing commitments determine much of the base level of spending, particularly for the first several years.

The details of the MEFF in the base-case scenario are presented in Table 8.3 below.

**Table 8.3: Projected Resource Envelope and Broad MEFF Parameters Under the Base-Case Scenario
(In Million Birr)**

Items	2005/06 Budget	2006/07 (Forecast)	2007/08 (Forecast)	2008/09 (Forecast)	2009/10 (Forecast)	5-Year Total
Government revenue	22,465	24,604	27,887	32,633	38,229	145,818
Tax revenue	16,164	20,270	24,121	28,680	34,129	123,364
Non-tax revenue	6,301	4,334	3,766	3,953	4,100	22,454
External grant	7,221	6,919	7,839	7,911	8,587	38,477
Total revenue including grants	29,686	31,523	35,726	40,544	46,816	184,295
Total expenditure	36,552	45,066	47,218	49,797	53,460	232,094
O/W poverty oriented expenditure	22,924	32,532	36,049	39,102	44,319	174,926
Recurrent	16,557	18,873	19,584	20,505	22,118	97,637
Capital	19,995	26,193	27,634	29,292	31,343	134,457
Overall balance including grants	-6,866	-13,543	-11,492	-9,253	-6,645	-47,799
Gap to be financed including grants	6,866	13,543	11,492	9,253	6,645	47,799
Gap financed	6,865	7,124	8,019	9,083	6,537	37,628
External (net)	2,083	2,371	2,633	3,088	3,532	13,707
Domestic (net)	4,782	4,753	5,386	5,995	3,005	23,921
Gap remaining to be financed in million Birr	0	6,419	3,473	170	108	10,170
Gap remaining to be financed in US\$ million	0	740.4	400.6	19.6	12.5	1,173
GDP at current market price (CMP)	115,543	132,874	152,539	175,030	198,359	
Inflation	8.6	8.2	8.1	8.5	8.1	8.4
As % of GDP						
						5-Year Average
Domestic revenue	19	18	18	18	19	19
Tax revenue	14	15	16	16	17	16
Non-tax revenue	5	3	2	2	2	3
External grant	6.2	5.2	5.1	4.5	4.3	5.1
Total revenue including grants	26	24	23	23	24	24
Total expenditure	32	34	31	28	27	30
O/W poverty-oriented expenditure	20	24.5	24	22	22	22.5
Recurrent	14.3	14.2	12.8	11.7	11.2	12.8
Capital	17.3	19.7	18.1	16.7	15.8	17.5
Overall balance including grants	-6	-10	-8	-5	-3	-6
Gap financed	5.9	5.4	5.3	5.2	3.3	5
External (net)	1.8	1.8	1.7	1.8	1.8	1.8
Domestic (net)	4.1	3.6	3.5	3.4	1.5	3.2
Gap remaining to be financed as % of GDP	0.0	4.7	2.3	0.1	0.1	1.5

Box 8.1: Examples of Expenditure Prioritization in the Event of a Resource Shortfall

In the education sector, primary education is accorded top priority in all activities, and the targets in this sub-sector will be maintained. Under a lower scenario, spending on construction and upgrading of secondary schools will be reduced by 12.5 %. In effect, the enrollment in secondary schools will reduce by about 30,000, deferring the problem and increasing the strain on future enrollments. Furthermore, the cost reduction from operating and investment outlays of higher education and TVET will result in the reduction of total enrollment by 10,500 and 16,000, respectively. In addition to the scaling-down of spending, different strategies would need to be employed to carry out the remaining activities, among others, increasing the utilization of classrooms, workshops and laboratories by teaching in the evening and weekends, and increasing of class sizes where feasible.

In the road sector, the cost requirements are based on the execution of three different categories of projects, namely (i) on-going projects whose funding is secured, (ii) projects where preparatory activities are completed and funding is under negotiation, and (iii) new projects that the Government intends to execute with the objective of improving access to roads. In this regard, the allocations of resource in the current MEFF would limit the road sector to the construction of on-going road projects that have secured funding and are under negotiation. In effect, the targets set for each component of road sector program would be revised downward, i.e., the cost reduction would lower the target for road density by 7 %. Within the roads planning system, projects are ranked taking account of their contribution to access to ports, access to existing resource areas, access to potential resource areas and markets, access to food deficit areas and balancing the distribution of road infrastructure among regions. Under the current program, the construction, rehabilitation and upgrading of trunk roads and implementation of the ER RTP (Ethiopian Rural Roads and Transport Program) are accorded top priority.

With regard to the health sector, program spending under a low scenario is brought down by about 36 %. In order to minimize the effect of expenditure reduction on targets, the health sector would slow down the construction of new health facilities and concentrate resources on improving the quality of health care through supply of essential inputs (including staff and drugs). The provision of maternal and child health care, malaria, and TB services will be given priority. As the bulk of program costs for HIV/AIDS is going to be covered by external global funds, budget pressure is not likely to significantly affect programs to be carried out through government resources.

In the Agriculture sector, priority is accorded to the extension program and food security. Spending earmarked for programs that reach out to farmers with various packages in line with the government's new rural development strategies will be protected; as will efforts to improve the skills of farmers, including training of students at agricultural technical and vocational training (TVET) centers.

The focus of water sector will be on the development of water supply and sanitation, with an emphasis on rural water supply and construction of small-scale irrigation. With financial resource constraints, attempts will be made to optimize the target for the improvement of access to clean water supply – especially in rural areas - and to increase the coverage of small-scale irrigation.

Possible Efficiency Gains and Savings: The unconstrained PASDEP costs prepared by line ministries represent what they would ideally like to spend. However, recognizing that resources will always be tight, there are a range of measures that can be taken to reduce costs and to make additional savings. For example, in the education sector efforts will be made to lower the unit cost of constructing schools by using low-cost construction and materials, as well as to achieve savings by multiple use of facilities and teachers; to the extent this can be

done in a system that is already over-crowded. As the construction of low cost schools requires local materials and lower levels of skill, attempts will be made to raise the share of communities in projects through provision of labor, material and money.

Furthermore, it is expected that additional -as yet unquantified- efficiency gains will be made as the result of improved service delivery and institutional reforms currently going on in each of the sectors (for example strengthening of the drug and contraceptive management systems should reduce supply costs in the health sector; decentralization of school management and training of principals should improve efficiency at the local level in education spending). Finally, as noted in the MDG Needs Assessment, there are expected to be generalized savings on the program as a whole as the result of synergies between investments in the various sectors (for example the cost of providing health service will fall as road access improves), and as the result of the cumulative effect of the on-going capacity-building, civil service reform, and decentralization initiatives.

Mobilizing External Sources of Finance: Given the size of the resource gap and the limited capacity of the economy to mobilize domestic resources, the sectoral shortfalls need to be covered from donors' assistance, community contributions and NGOs as far as possible. There is already a strong partnership between the Government and development partners within the framework of the SDPRP that focuses on poverty reduction. Nonetheless, the level of funding needed if Ethiopia is to have any hope of approaching the MDGs implies a significant push over the coming ten years, with a sizeable increase in support from the international community. Furthermore, the level of official development assistance that Ethiopia currently receives (at US\$14 per capita) is substantially lower than that of other low-income countries, including many with higher average per capita incomes and with better indicators of human development²⁰, so in the global context of increased aid commitments following the Gleneagles agreement, the case for increasing external finance flows to Ethiopia is very strong. The Government's commitment to spending on poverty-reducing programs, and track record of sound financial management and implementation, serve to strengthen the case. Furthermore, the wide range of institutional and structural reforms that have been taking place will help enhance the transparency of government expenditure management and accountability of the public sector. These efforts are expected to encourage all development actors including our development partners to mobilize their resources towards the common goal of poverty reduction and its ultimate eradication.

Other Financing Sources: While there are limits to the surpluses available locally, every effort will be made to mobilize additional resources outside of the tax system. For example, there is scope for using more local materials and community labor in the school building program; and in many cases communities are already contributing to the costs of hiring additional teachers. Regions and local governments are increasingly raising revenue locally that augments the public expenditure envelope, and the on-going *woreda* devolution will also help mobilize community contributions to activities like rural roads, education, health, and water supply programs. Cost-recovery mechanisms are also being introduced and enhanced for urban services such as water supply, for higher education, in the form of the graduate tax,

²⁰ For example ODA per capita for Ethiopia has been on average a quarter of that of Mozambique and half of that of Uganda (Country Economic Memorandum (CEM), World Bank 2005).

and for drugs in the case of revolving pharmacies, increasing the amount of resources mobilized, and reducing the demands on direct treasury spending.

There is also a growing network of national and internationally supported NGOs that are channeling resources to development programs. Finally, as noted earlier various specialized sectoral financing is also expected to continue to flow into the country outside of the official government budget. These include, for example, global and bilateral initiatives for various health and AIDS programs. The net effect of all of these additional sources of financing cannot be easily quantified; but it will be refined over time and the spending targets of ministries adjusted as the scale of local funding, cost-recovery, and additional aid resources becomes clearer.

8.2 Medium Term Resource Envelope and Projected Overall Spending (High-Case Scenario)

This section outlines the fiscal results and the differences in the high-case scenario relative to the base-case scenario. The exercise helps advance the case for scaling up and articulating the macro implications of the respective scenarios. The differences in scenario results can be summarized as follows:

- a) As can be seen by comparing the results in Tables 8.3 and 8.4, the major differences between the base-case and the high-case is in terms of resource envelope (domestic revenue, owing to differences in projected tax revenue in line with the assumed real GDP growth rate) as well as modest differences in projected external grants across the two scenarios;
- b) On the expenditure side, there is not much difference in projected outlays among the two scenarios, except for modest differences in the case of ‘emergency related outlays’ and administrative outlays classified as ‘others’;
- c) For the purposes of these illustrative projections, the level of outlays otherwise remains almost the same across the two scenarios, the rationale being that these costs need to be financed to reach the MDGs, and the objective is to show the extent of the gap; and,
- d) The level of overall deficit and the portion being financed given the trend level of tolerable financing including grants is indicated. The gap to be financed (over and above projected available finance) is indicated as “gap to be financed” in each case.

8.2.1 Source of Revenue Projection

The objective of constructing these scenarios is not primarily to choose one or the other, but rather to help advance the case for scaling up and articulating the macro implications of the respective scenarios towards achieving the PASDEP targets, and by extension the MDGs in relation to the macroeconomic framework and GDP growth.

The basic fiscal results under the high-case scenario are presented in Table 8.4 below. As can be seen from the table, under the high-case scenario, there is substantially more financing available, in the order of about 205.5 billion Birr during the whole of the PASDEP period,

reaching about 57.5 billion Birr in 2009/10 from about 20 billion Birr in 2004/05. Under the high-case scenario, domestic revenue is projected to increase at an annual rate of 26% per annum and expected to reach 21% of GDP by the end of the Plan period.

8.2.2 Projected Expenditure Allocation

If the high-case eventuates, overall spending could be increased more rapidly, with particular emphasis on acceleration of the rural electrification program, human development (water supply and sanitation, education, health and HIV/AIDS programs) and infrastructure expansion (roads investment), and an expanded version of the agricultural and food security programs.

Accordingly, the projected outlay required for the implementation of the planned programs in this scenario is expected to reach at 53.5 billion Birr in 2009/10 from 24.8 billion Birr in 2004/05. The difference (recurrent and capital) between the two scenarios will stand at 7.6 billion Birr. The total projected expenditure required for the implementation of the planned programs for overall development and for poverty-oriented sectors will be 232.1 billion Birr. The figure in terms of the cost allocated for poverty-oriented sectors remains the same in both scenarios while the capital expenditure appears to be on the highest side compared to the base-case scenario, the difference being 8.3 billion Birr. On the other hand, assuming the downscaling of the budget allocated for emergency related outlays, the recurrent expenditure will be lower by 713 million Birr compared to the base-case scenario.

8.2.3 Financing the Gap under the High Case Scenario

Under this scenario, in 2006/07, the projected total revenue is estimated at 32.5 billion Birr while total expenditure is 45.0 billion Birr. Hence, budget deficit (including grants and loans) will stand at 12.6 billion Birr (8.7% of GDP). Of the total deficit, 7.5 billion Birr (5.1% of GDP) is expected to come from predetermined sources while the remaining 5.1 billion Birr (3.5% of GDP) is projected as a gap to be financed.

Under the high-case scenario, in addition to the total budget deficit of the PASDEP period that will be covered by predetermined sources, the financing gap (gap to be financed over and above projected available finance to achieve the full MDG Needs-Based program) over the whole period of the Plan amounted to nearly 5 billion Birr or US\$581 million at the current exchange rate (8.67 Birr per US\$ in 2004/05). The financing gap is mostly concentrated in the next two years, when there is front-loading of infrastructure investments. By the end of the Plan period (2009/10), the Government would be in place to pay its debt amounting to 2,377 million Birr by the end of the Plan period (2009/10). Negative gap to be financed means debt payment. Details are presented in Table 8.3 below and Annex Table 8.7.

**Table 8.4: Projected Resource Envelope and Broad MEFF Parameters Under the High-Case Scenario
(In Million Birr)**

Items	2005/06 Budget	2006/07 (Forecast)	2007/08 (Forecast)	2008/09 (Forecast)	2009/10 (Forecast)	5-Year Total Average
Domestic revenue including grants	29,686	32,509	38,974	46,869	57,493	205,530
Total expenditure	36,552	45,066	47,218	49,797	53,461	232,094
Overall balance including grants	-6,866	-12,558	-8,244	-2,928	4,032	-26,564
Financing	6,866	12,258	8,244	2,928	4,032	34,328
External (net)	2,083	2,371	2,633	1,042	2,452	10,581
Domestic (net)	4,782	4,753	4,320	897	3,957	18,709
Gap financed	6,865	7,124	6,953	1,939	6,409	29,290
Gap remaining to be financed in million Birr	0	5,134	1,291	989	-2,377	5,037
Gap remaining to be financed in million \$US	0	592.2	148.9	114.1	-274.2	581.0
GDP at CMP	118,269	144,660	173,452	204,644	241,179	
As % of GDP (%)						
						5-Year Average
Overall deficit including grants (%)	-5.8	-8.7	-4.8	-1.4	1.7	-3.8
Gap financed (%)	5.8	4.9	4.0	0.9	2.7	3.7
External (net) (%)	1.8	1.6	1.5	0.5	1.0	1.3
Domestic (net) (%)	4.0	3.3	2.5	0.4	1.6	2.4
Gap remaining to be financed (%)	0.0	3.5	0.7	0.5	-1.0	0.8

CHAPTER IX

Opportunities, Risks and Challenges in Implementing the PASDEP

Given the time horizon and scope of the PASDEP, it is inevitable that there will be both opportunities, and unforeseen risks and challenges that emerge as the program unfolds. As far as possible, the Government has attempted to take these into account in formulating the strategy by taking stock of recent performance and achievements as well as challenges encountered, evaluating the socioeconomic and political circumstances under which the plan has been conceived, and the international economic order. The Government has tried to assess the possible positive and negative external developments that may affect the performance of the Ethiopian economy during the next five years, and the environment in which the plan is implemented. The PASDEP has attempted to articulate built-in measures to handle each of these factors.

The PASDEP carries forward important strategic directions pursued under the SDPRP and is prepared based on the implementation assessment of SDPRP, which indicated achievements and lessons drawn during the program period. Successes include the large expansion of social services; improvements in the delivery of public services and streamlining of bureaucratic and regulatory processes; the return of business confidence and significant private sector growth; and improvements in communications, infrastructure and education levels. Challenges experienced during SDPRP included continued volatility and external shocks; drought; capacity constraints in construction and in the public and private sectors; and the challenge of maintaining quality of services in the face of massive expansion of the number of persons and communities served.

In looking forward, it is also important to note that the PASDEP is set in a longer-term perspective, as it is drawn from the 10 year Ethiopian MDGs Plan, and needs to be seen as the first five year phase of that 10 year plan. The PASDEP indicated that the right institutional setup, policies as well as strategies are in place to meet the MDGs; and the challenges and opportunities need to be assessed in that long-term context.

9.1 Opportunities

There are a number of developments that could result in more progress being made than is currently expected. They consist of both encouraging developments in the recent past, and possible new positive developments that could eventuate in the next few years, including:

- *Implementation of the ongoing National Capacity-Building Program* and the positive results that are already being observed in the private sector and in civil society including the impact of large investments in universities, and technical and vocational education and training in both the modern sector and agriculture, and in the strengthening of institutions and of physical capacity in Government at all levels (including laying the foundations for effective decentralization to the *woreda* and municipal local authority levels). The capacity-building initiative, civil service reform, justice system reform, and the combined effects of investments in different

sectors, can have a compounding effect in lowering the cost of services in the future, while increasing efficiency and synergies across sectors, allowing for greater effectiveness, and more scaling-up of implementation;

- *The success of the domestic resource mobilization efforts already underway* including: (i) improvements in domestic revenue mobilization by the Government, which have seen revenues rise from 10 billion Birr in 2001/02 to over 15 billion Birr in 2004/05, and the reforms of the recent past, which lay the basis for substantial further revenue increases during the period of the PASDEP; (ii) the increasing levels of community involvement and contribution to the developments process, and opportunities created for community and social mobilization; (iii) the expansion in number of activities of the CSOs and NGOs as well as private citizens, and their increasing engagement, which can both contribute resources, more implementation capacity, and innovative approaches to solving development challenges; and (iv) increases in private investment and saving. All of these combine to potentially increase the level of resources being directed in support of the program beyond the levels forecast today;
- *Existence of successful ongoing sector development programs* in key sectors including: education, health, water and sanitation, roads, telecommunications, power, agriculture and rural development;
- *The momentum effects of past investments* such as the expansion of rural and urban road infrastructure including drainage works during the last 5 years, telecommunications connectivity, and the improvements in health services, average levels of education, literacy, and skills; all of which should start to pay significant dividends in the coming years in terms of a better economic environment and increased productivity as the public's participation in the development process is further strengthened;
- *The opening up of the environment for private investment and business activity*; and potential positive impact of the diaspora, which is increasingly engaging in, or returning to Ethiopia, and providing a cross-fertilization of ideas, skills, and injections of capital and remittances that can help accelerate development;
- *Global initiatives* such as the Gleneagles agreement for debt cancellation and additional finance for poor countries, as well as increased access to trade opportunities by greater globalization, and Ethiopia's increasing integration into the world economy;
- *The development potential of the country* in terms of natural resources endowments, the large untapped domestic market, and labor force, all of which are under-exploited, and which if tapped effectively, could accelerate the rate of development in the coming five years, especially given the low base from which the country is starting; and,
- The potential impact of agricultural transformation and food security programs, which if successful, will liberate millions of small farmers from hunger and their historical exclusive concentration on traditional cultivation of subsistence crops, allowing them to contribute for the first time to the economic life of the country.

9.2 Risks

There are also a number of risks on the horizon that could affect implementation of the PASDEP strategy, including:

- The unpredictability of external financing, and the inability to project financial inflows in the context of scaling up; and its dependability on a number of national and external circumstances, which makes the projection of the amount and sustainability of external assistance difficult;
- The low level of capacity in the domestic construction industry, which has a direct bearing on implementation of programs and plans;
- The recent increase in international oil price, and of imports more generally; if there are significant further increases less of the program could be financed with the available resources;
- The instability of prices of Ethiopian exports, and more generally, the narrow base of the export sector, which leaves the economy vulnerable to downturns in prices or demand for its exports;
- Recurrent droughts, which could slow down economic activity, divert development resources to relief efforts, and impede the progress in reducing poverty through food shortages and increased impoverishment;
- Increases in unit prices of goods that have implication for infrastructure development (a good example is the large increase in the costs per kilometer of road constructed in the recent past as the result of asphalt, fuel, and equipment price increases); and,
- The potential effects on external finance flows, and on domestic economic activity, of possible external and geopolitical factors, or of internal political instability.

9.3 Managing Risk: What Should be Done?

While these risks cannot be eliminated entirely, and some of them lie outside of the Government's control, measures have been built into the strategy to take explicit account of each of them, and to proactively manage them. These include the following:

- To handle the resource inflow uncertainty: in order to be conservative, the underlying projections for PASDEP assumes only a continuation of historical aid levels; and further dialogue will be undertaken with development partners to improve external resource mobilization efforts, and to allocate resources for priority sectors;
- To maximize capacity and resources, everything possible will be done during the PASDEP period to fully utilize domestic opportunities through community/social mobilization; and to coordinate efforts with non-state actors in general in order to tap the dynamic potential of Ethiopian society, and help overcome capacity constraints;
- To spread the risk, diversify the sources of economic growth, and reduce the pressure on the public sector, PASDEP will further enhance the conducive environment for private sector participation in the development process, and improve the functioning of markets;
- A major effort at strengthening the domestic construction industry is being undertaken;

- To reduce the exposure to swings in commodity and export prices and demand, the ongoing export diversification efforts are being intensified;
- To address the institutional capacity constraints, the capacity-building, civil service reform program and urban governance initiatives are being intensified;
- To manage the impact of drought, utilization of water resources will be improved through irrigation development, water resource and river basin management initiatives, intensification of food security programs and the diversification of agriculture into new areas and crops; and,
- Finally, governance structures are being strengthened, less-developed regions and groups are receiving intensified support, and local participatory structures developed, to try to maximize the participation of all elements of society, and minimize the risk of political instability.

CHAPTER X

Monitoring & Evaluation (M&E) System of the PASDEP

10.1 Background

As the PASDEP is a continuation of the SDPRP, the M&E system is not a new invention. Rather, it is built on the existing Welfare Monitoring System Program (WMSP), which was in place even before the advent of the PRSP process. The Welfare Monitoring System was established in 1996, and the Welfare Monitoring Unit (WMU of MoFED) was established to implement the system. The poverty reduction strategy M&E system represents a strengthening and broadening of the existing WMSP.

Accordingly, surveys that will be conducted by the CSA and the analytical studies, which will be undertaken by MoFED based on the data and information generated through such surveys are indicated in the WMSP. The Program is designed with the main objective of providing the necessary socio-economic data and information for the PASDEP M&E system.

Other elements of the SDPRP and hence PASDEP M&E system include the use of specialized surveys; the development of a matrix of indicators to track progress on inputs, outputs, and outcomes; the implementation of new instruments such as the Participatory Poverty Assessment; and the use of routine data generated by sectoral ministries and local governments. These sources are supplemented through information generated by civil society institutions, such as the findings of the Citizen's Report Card recently produced by the PANE.

10.2 The Monitoring & Evaluation System of the PASDEP

The roles played by the major actors of the PASDEP M&E system are outlined below:

10.2.1 The Role of the MoFED

In terms of the institutional set up of the WMSP, the MoFED is the coordinator/chair of the Welfare Monitoring Steering Committee (WMSC) as well as Welfare Monitoring Technical Committee (WMTC) members. To this end, the Ministry coordinates the preparation of the PASDEP as well as the WMSP. The background reports prepared by the WMTC members of the poverty-oriented federal executing bodies serve as a basis for the reports prepared by MoFED. In addition, sectoral annual implementation, monitoring and evaluation reports serve in generating output and input indicators while reports prepared by CSA based on information from surveys serve to generate outcome and impact indicators. Accordingly, based on the available information from surveys as well as from administrative sources, MoFED prepares implementation assessment reports as an input to the WMSP and for distribution to the relevant government authorities as well as to non-governmental bodies.

10.2.2 The Role of Federal Executive Bodies

As indicated earlier, federal implementing bodies prepare and submit annual progress/implementation assessment reports to MoFED. As the M&E capacity of the federal implementing bodies is very much variable, the information base needs to be further strengthened for the preparation of such reports. The sectoral monitoring systems for education, road, health, water and sanitation in that order are relatively more systematized and well linked to the grass root level than the monitoring system for other sectors. The M&E system for agriculture (save that of food security) is relatively weaker and needs to be strengthened. The formulation of sector development programs for those sectors since the latter period of the 1990s has helped establish linkages with sub-national counterpart executive bodies and thereby help strengthen their M&E system. Accordingly, during the PASDEP period, emphasis will be given to strengthening sectoral M&E systems.

10.2.3 The Role of CSA

The CSA is established with the main objective of gathering and distributing socio-economic data and information as an input for the preparation of development strategies, to help evaluate public programs, and to feed into policy designs. The 5-year National Medium-term Statistical Program, jointly prepared by the CSA and MoFED, for the period 2003/04-2007/08 on a rolling basis, governs the Agency's activity. Furthermore, to satisfy the data needs of the M&E system, the work of the CSA, as the main data producer, has been reoriented to prioritize surveys and other data sources in accordance with the PASDEP process. The CSA is also pursuing the process of establishing the Information and Communication Technology Department in order to effectively implement the strategies of the Program and its M&E system. Moreover, the National Statistics Council is established to link the Agency with the end users of information. Efforts are also being made to establish a national statistical framework with the aim of setting up a structured flow of data and information.

The surveys conducted and planned to be conducted by the Agency include the following. Among others:

- The development of a series of very successful WMSs, being conducted every two years that helps measure the non-income dimension of welfare and living conditions in Ethiopia; and of the major HICESs, conducted every five years, which helps measure the income dimension of poverty. Significant progress has been made over time on both surveys in terms of the methodologies adopted, making utmost use of the available data sets disaggregated by region and gender and with rural-urban dimensions, handling the data and undertaking the analysis, and issuing the results within a reasonable timeframe. To date, the WMU and the CSA have conducted three HICESs (1995/96, 1999/00, 2004/05). The WMSs were conducted in those years when the HICES are conducted as well. Based on these survey results, two major poverty reports were produced, the first in 1999, and the second, which underpinned SDPRP in 2002, based on the 1999/00 HICES

- and WMS data sets. The PASDEP strategy is informed by the findings of the recent 2004 WMS and the 2004/05 HICES as well;
- A *woreda*-level WMS is planned for 2007/08. This will be a major step towards providing poverty statistics at lower levels of desegregation, allowing local-level planners to base their interventions and programs on concrete information that could be monitored. The CSA also has a plan to organize administrative data via its established infrastructure to facilitate the availability of routine data to users, including to local-level users via the *woreda*-net infrastructure being implemented by the Government;
 - It is believed that the fourth HICES, which is planned to be conducted in 2009/10, will generate data sets that will serve as an instrument to evaluate and monitor the implementation of the PASDEP;
 - The DHS conducted in 2004/05 generated health and demographic information data, among other related issues, for monitoring progress on the implementation of SDPRP and hence the PASDEP. The Survey will be conducted again in 2009/10 and will be a good opportunity to evaluate the achievements during the PASDEP period;
 - The CSA has made the necessary preliminary preparations in terms of setting up the counting map and gathering topographic information to conduct the third Population and Housing Census in 2006/07. The effort would enable to produce a map with a greater range of data and information that is correlated with the GIS. Related to this, based on the latest (2004/05) HICES data sets and the results of the WMS and the upcoming (2006/07) Population and Housing Census, the WMU in collaboration with the CSA and other stakeholders will construct a poverty map of Ethiopia to enable project poverty estimates at least at the *woreda*-level. Preparation for this undertaking is due to start during 2007/08;
 - The availability of the results of the 2001/02 *woreda*-level Ethiopian Agricultural Sample Enumeration (EASE), which has provided an enormous amount of data on agricultural production, livestock, agricultural inputs, agricultural practices and land use, etc. The census was the first of its kind that provided information at *woreda* level, which would also facilitate decentralized planning; and,
 - CSA, as part of the regular statistics produced through the National Integrated Household Survey Program (NIHSP), has been coordinating, conducting, and distributing crop production and price surveys, pre and post harvest loss surveys, in addition to surveys of state and private commercial firms, of manufacturing, trade, services and construction, of small-scale manufacturing industries, and of employment, and an annual international comparison survey.

As indicated earlier, various sample and census studies have been conducted within the framework of the National Medium-term Statistical Program. However, there is a need to intensify the scope of the studies in order to evaluate and monitor the country's development strategies and the impact of the ongoing socio-economic transformation in the various sectors. The Agency must also be capacitated for the timely generation of an updated socioeconomic and census data and information with enhanced quality, and wider coverage to inform the M&E system. In this regard, measures expected to be undertaken are the following:

a) Developing the Roadmap Document for Statistical Work in Ethiopia

This is an integrated plan for the strategic development of the country's national statistical system encompassing the main data producers (outside of the CSA for the administrative data) and users. The main purpose of preparing the National Strategy for the Development of Statistics (NSDS) is to define the best national long-term strategy to develop an efficient and sustainable statistical system in the country. Accordingly, the preparation of the NSDS in collaboration with the World Bank is among the priority tasks to be undertaken in the coming years.

b) Improvement in the Provision of Timely and Quality Information

In order to enhance and facilitate data collection, storage and dissemination in the CSA, a number of activities have been initiated with the financial support from the Development Assistance Group (DAG) and through government budget. The CSA has already begun to disseminate data through electronic media including the current WMS results. In addition, connecting the head office within itself and with its 25 branch statistical offices has been commenced by installing the Local Area Network (LAN) in the head office. The Wide Area Network (WAN) will be installed during subsequent years. This will facilitate the activities listed below:

- Decentralized timely data coordination;
- Increasing the quality of the data by easily correcting technical problems encountered in organizing the data; and,
- To undertake Computer Aided Personal Interview (CAPI) at least for studies related to small-scale enterprises and consumer price index.

In order to structure statistical survey results in a standardized manner, there is a need to prepare a statistical standard guideline that includes internationally accepted classification, meta data standardization, national coding system as well as description of major items. The guideline would be beneficial to link and analyze statistical data and information obtained from administrative sources and surveys.

c) Establishment of the Central Data Bank

Preparatory activities to establish the Central Data Bank, intended to serve as a one-stop data warehouse including census data, household and non-household based survey data, and administrative data with state-of-the art data management system, is underway. Finalization of this infrastructure would enable a user-friendly data access to the M&E system. In addition, in order to enhance the distribution and quality of publications, the agency is expected to improve and standardize its printing services.

d) Further Strengthening Sectoral Monitoring Systems

As the WMU, which coordinates the overall M&E system, is being fed with information from two principal sources: the CSA for primary sources, and the various sectoral monitoring systems that are functionally linked to lower level executive bodies, the existing system, particularly the systems that generates routine administrative data, needs to be strengthened and reporting requirements further reinforced.

In this regard, it is worth noting the three major challenges that still need to be addressed: (i) better integrating the wealth of routine data already generated by various federal and regional institutions into the common M&E system, so that the findings are known to all actors and can be fed into policy discussions; (ii) better dissemination of the findings of M&E so that they feed into the thinking of senior policy-makers; and (iii) greater gender desegregation of data, and effective use of that data for planning and policy analysis. The other challenge is taking the next step to move from monitoring of outcomes to the evaluation of programs and interventions.

e) Strengthening Monitoring and Evaluation of the PASDEP and MDGs Implementation

The focus on the M&E of the PASDEP (2005/06-2009/10) and the Ethiopian MDGs (2005/06-2014/15) strengthens the need for, and attention to, M&E to track the medium-term development agenda and progress towards the MDG targets. In this regard, the most notable development in the last year has been the formulation and adoption of the M&E Action Plan entitled "*Strengthening SDPRP and Ethiopian MDGs Monitoring and Evaluation Action Plan*" encompassing the period 2004/05-2009/10. The M&E Action Plan is designed to:

- Monitor input and process indicators across levels of government (e.g. public spending, adoption of reforms) as a measure of implementation;
- Monitor output indicators (e.g. education, health, infrastructure) at various levels of aggregation (household, *woreda*, national) as a measure of institutional efficiency;
- Monitor developmental outcomes and final objectives to track overall progress;
- Relate performance to indicators of reform processes for decentralization and capacity building to provide information on the effectiveness of the reform process in improving outcomes; and,
- Evaluate impact to determine the effectiveness of key government policies and programs in reaching desired objectives.

The Action Plan was presented to donors and civil society on the May 2004 M&E workshop. Subsequently, a Memorandum of Understanding (MOU) has been signed between MoFED and donors (DAG) to support the implementation of the M&E Action Plan at a total cost of US\$8.5 million, covering the activities during the coming five years of both the WMU and the CSA.

Discussion on survey plans/questionnaires to render user-oriented data will also be pursued in the course of implementing the M&E Action Plan. The CSA regularly holds stakeholder workshops on its survey instruments and, as a result, has recently strengthened them to further capture gender dimensions, HIV/AIDS, asset building to reduce vulnerability, and particularly with respect to basic data on the income dimensions of poverty.

In addition, both the CSA and WMU have commenced preparations for the development of data/information management and dissemination systems. Furthermore, there is a need to strengthen the ETHIO-INFO Data Base in order to generate and analyze sectoral socio-economic time series data. Capacity strengthening of the WMU is ongoing through the hiring of additional staff. Consultative process has been put in place with donors and civil society within the frameworks of the welfare monitoring structure.

10.3 PASDEP Monitoring and Evaluation Policy Matrix

In relation to the indicated sectoral socio-economic development targets of the PASDEP, a policy matrix is provided, which presents a list of actions or policy measures and annual quantitative targets for the M&E of the achievements/drawbacks during the program period. The matrix will be refined as the program proceeds, and updated during the preparation of APRs. A major consideration in making adjustments is the availability of data, and the feasibility of measuring progress against indicators.

10.4 Seeking Results through Learning – A New Emphasis on Evaluation

A major part of the PASDEP strategy is an intensified emphasis on results and effectiveness, with a sharper focus on outcomes.

The faster growth trajectory is bound to raise uncertainties, because of both the speed of actions required, and the scaling-up of activities in different sectors. Attaining fast growth across a wide spectrum, stretching from the small farmer to the modern private sector in urban areas, with growth poles spread throughout the country, involves a more complex set of policies and interventions than in the past, and in this environment learning from experience and results is critically important.

The move to accelerate growth under PASDEP embodies a number of critical factors for Ethiopia: in the balance of private and public partnerships; toward export-led growth in selected manufacturing and agricultural products; in switching farm households into business firms; in making towns complementary engine of growth; and in the modernization of agricultural marketing. All of these introduce uncertainties, and may result in unexpected poverty outcomes in the short-term. Careful evaluation of outcomes will thus be critically important, to adjust policies as we go along.

Scaling-up, whether in infrastructure, in education, in health, or in agriculture, also entails uncertainties, which cannot be fully understood at the start-up phase. Constant and critical M&E -especially evaluation of effectiveness- will be an important part of

tracking the expansion, and deciding on re-ordering of priorities, and making mid-stream adjustments.

In all of these cases, learning requires a willingness to be guided by results. Results obtained on the ground will be used to assess the desirability of change in terms of implementation, program choice, and strategic direction. An important aspect of this approach will be the need for institutions to be flexible in terms of practice, norms, and organization to provide a positive environment for learning. As part of the M&E system, intensive evaluation studies will be undertaken on selected PASDEP interventions and policies, so that adjustments can be evidence-based. How to do this institutionally in the best way still needs to be worked out, and that is one of the challenges during the early phase of the PASDEP.

Annexes

**Annex Table 6.1: Projection of Macroeconomic Performance During the PASDEP
Period
(In Million Birr)**

Item	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
Real sector and prices						
GDP at CMP	98,397.9	115,543	132,874	152,539	175,030	198,359
GDP annual growth rate	10.6	8.5	6.8	7.1	6.5	6.7
Total consumption expenditure	92,066.9	108,392	123,639	138,476	155,093	172,463
Investment (GDCF)	20,165.3	25,475	30,519	37,446	44,365	51,719
Total export	15,578.8	18,726	22,433	27,368	32,521	39,052
Total imports	33,728.7	37,050	43,717	50,751	56,949	61,792
Resource gap	-18,149.9	-18,324	-21,284	-23,383	-24,428	-22,740
Gross domestic saving	6,331.1	7,151	9,235	14,063	19,937	25,896
Inflation	6.8	8.6	8.2	8.1	8.5	8.1
Monetary sector						
Money supply (broad money)	40,452	47,450	60,690	71,633	81,029	92,440
External sector						
Exports (merchandise)	7,076	9,134	110,540	11,798	13,352	15,039
Imports (merchandise)	31434	35504	37880	47699	57422	67,044
Trade balance	-24,358	-26,370	-27,340	-35,901	-44,070	-52,005
Fiscal sector						
Domestic revenue	15,582	22,465	24,604	27,887	32,633	38,229
Total revenue including grants	20,147	29,686	31,523	35,726	40,544	46,816
Gross government expenditure	24,803	36,552	45,066	47,218	49,797	53,461
Overall balance (including grants)	-4,655	-6,866	-13,543	-11,492	-9,253	-6,645

As a Ratio to GDP (%) at CMP

Item	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	5-Year Average
Total consumption expenditure	96.3	93.8	93.0	90.8	88.6	86.9	90.6
Investment (GDCF)	21.6	22.0	23.0	24.5	25.3	26.1	24.2
Total exports	15.8	16.2	16.9	17.9	18.6	19.7	17.9
Total imports	33.7	32.1	32.9	33.3	32.5	31.2	32.4
Resource gap	-17.9	-15.9	-16.0	-15.3	-14	-11.5	-14.5
Gross domestic saving	3.7	6.2	7	9.2	11.4	13.1	9.4
Monetary sector							
Money supply (broad money)	41.1	42.0	44.2	46.6	49.1	52.5	46.9
External sector							
Exports (merchandise)	7.2	8.2	9.6	10.2	10.9	11.6	10.1
Imports (merchandise)	31.9	35.2	32.8	34.2	35.7	37.2	35.0
Trade balance	-24.8	-27.0	-23.2	-24.0	-24.8	-25.6	-24.9
Fiscal sector							
Domestic revenue	16	19	19	18	19	19	19
Total revenue including grants	20	26	24	23	23	24	24
Total government expenditure	25	32	34	31	28	27	30
Overall balance (including grants)	-5	-6	-10	-8	-5	-3	-6

**Annex Table 7.1: Agricultural Sector Targets
A: Crop Research Targets**

Development Potentials	Technology	Unit	Source of Technology		Target	Availability of Technology				
			Local	External		2005/06	2006/07	2007/08	2008/09	2009/10
Regions with adequate rain fall	Crops	N ^o .		√	1	1	-	-	-	-
” ” ”	Pulses	N ^o .		√	7	2	1	2	1	1
” ” ”	Oil seeds	N ^o .		√	3	-	-	1	1	1
” ” ”	Fiber crops	N ^o .		√	2		1		1	
” ” ”	Vegetables and flowers	N ^o .		√	2	1	-	-	1	-
” ” ”	Spices	N ^o .		√	4		1	1	1	1
” ” ”	Root crops	N ^o .		√	4		1	1	1	1
” ” ”	Tea	N ^o .		√	2				1	1
Regions with inadequate rain fall	Cereals	N ^o .		√	3	3	-	-	-	-
” ” ”	Pulses	N ^o .		√	3	1	-	1	-	1
” ” ”	Oil seeds	N ^o .		√	3	-	-	2	1	-
” ” ”	Fiber crops	N ^o .		√	2				1	1
” ” ”	Fruits	N ^o .		√	2				1	1
” ” ”	Root crops	N ^o .		√	4		1	1	1	1
Irrigable areas	Oil seeds	N ^o .		√	2				1	1
” ” ”	Fiber crops	N ^o .		√	3		1	1	1	
” ” ”	Vegetables and flowers	N ^o .		√	1	-	1	-	-	-
” ” ”	Fruits	N ^o .		√	7		1	2	2	2
” ” ”	Cereals	N ^o .	√		2	-	1	-	1	-
” ” ”	Oil seeds	N ^o .	√		2				1	1
” ” ”	Fiber crops	N ^o .	√		2				1	1
” ” ”	Vegetables	N ^o .	√		2	1	-	-	1	-
” ” ”	Fruits	N ^o .	√		8	1	1	2	2	2
Regions with adequate rain fall	Cereals	N ^o .	√		27	6	6	6	5	4
” ” ”	Pulses	N ^o .	√		8	2	1	2	1	2
” ” ”	Oil seeds	N ^o .	√		5	1	1	1	1	1
” ” ”	Fiber crops	N ^o .	√		2				1	1
” ” ”	Vegetables	N ^o .	√		4	2	-	1	-	1
” ” ”	Fruits	N ^o .	√		2				1	1
” ” ”	Root crops	N ^o .	√		4		1	1	1	1
” ” ”	Tea	N ^o .	√		2				1	1
” ” ”	Coffee	N ^o .	√		3			1	1	1
Regions with inadequate rain fall	Cereals	N ^o .	√		21	3	8	4	4	2
” ” ”	Pulses	N ^o .	√		5	1	1	1	1	1
” ” ”	Oil seeds	N ^o .	√		2	-	-	-	1	1

Development Potentials	Technology	Unit	Source of Technology		Target	Availability of Technology				
			Local	External		2005/06	2006/07	2007/08	2008/09	2009/10
For 'Belg' season	Cereals	N ^o .	√		3			1	1	1
” ” ”	Pulses	N ^o .	√		3			1	1	1
For all types	Cereal crops conservation technology	N ^o .	√		19		6	4	3	6
” ” ”	Pulse conservation technology	N ^o .	√		13		2	5	3	3
” ” ”	Oil seeds conservation technology	N ^o .	√		5		1	2	1	1
” ” ”	Fiber conservation technology	N ^o .	√		2				1	1
” ” ”	Vegetables and flowers conservation technology	N ^o .	√		43	14	1	12	1	15
” ” ”	Fruits conservation technology	N ^o .	√		9	1	4	1	1	2
” ” ”	Spices conservation technology	N ^o .	√		4		2	1		1
” ” ”	Root crops conservation technology	N ^o .	√		8			4		4
” ” ”	Coffee and tea crop conservation technology	N ^o .	√		3			1	1	1
” ” ”	Cereales conservation technology	N ^o .	√		17	-	3	7	6	1
” ” ”	Pulses conservation technology	N ^o .	√		4	-	-	-	2	2
” ” ”	Oil seeds conservation technology	N ^o .	√		3	-	-	-	1	2
” ” ”	Fibre conservation technology	N ^o .	√		4			1	2	1
” ” ”	Vegetables and flowers conservation technology	N ^o .	√		3	-	1	-	1	1
” ” ”	Fruits conservation technology	N ^o .	√		10	2	2	2	2	2
” ” ”	Roots crops conservation technology	N ^o .	√		6			2	2	2
” ” ”	Tea conservation technology	N ^o .	√		3			1	1	1
” ” ”	Coffee conservation technology	N ^o .	√		4				2	2
	Technical manual for cereal crops	N ^o .	√		6	-	3	2	1	-
	Technical manual for oil seeds	N ^o .	√		3	-	-	2	-	1
	Technical manual for vegetables	N ^o .	√		3	-	1	-	1	1
	Technical manual for fruits	N ^o .	√		7	1	1	1	2	2
	Technical manual for crops used for aroma and medicine	N ^o .	√		1			1		
	Technical manual for tea	N ^o .	√		1			1		

B: Livestock Research Targets

Development Potentials	Type of Technology/Information	Unit	Source of Technology		Target	Availability of Technology				
			Local	External		2005/06	2006/07	2007/08	2008/09	2009/10
Regions with adequate and inadequate rain fall	Develop improved laying hens producing more than 200 eggs per year and hybrid meat hens producing 150-200 eggs per annum	N ^o .		√	4				2	2
Regions with three agro-ecological zones	Develop and practice non-electrical incubators	N ^o .		√	2				1	1
” ” ”	Adopt technology for 'Koroso' fish using cage culture (floating technology)	N ^o .		√	6	-	1	1	2	2
Regions with adequate rain fall	Develop animal feed technology for ruminants to improve milk and meat production as well as their breeding behaviors	N ^o .	√		4	1	1	1	1	-
” ” ”	Develop forage feed technology to improve the utilization of agricultural and industrial by-products	N ^o .	√		8	2	2	2	1	1
” ” ”	Develop improved production technology for forage crops, foliage, root crops and forage tree varieties		√		11	-	3	2	3	3
” ” ”	Develop improved information management and utilization techniques for honey production to enhance results from bee, honey and wax productivity	N ^o .	√		10	1	3	1	2	3
” ” ”	Develop information on specifics and distribution of 'Tasma' honey bees	N ^o .	√		1	-	-	-	1	-
” ” ”	Develop strategy to identify and monitor FMD and BVTB cattle diseases	N ^o .	√		2	-	-	1	1	-
Regions with adequate and inadequate rain fall	Develop monitoring strategy for poultry diseases	N ^o .	√		1	-	-	-	1	-
For all types	Identify problems on the quality and sanitation of milk and meat products	N ^o .	√		3	-	1	1	1	-
” ” ”	Develop examination techniques for cattle tape-worm disease	N ^o .	√		1	-	1	-	-	-

Development Potentials	Type of Technology/Information	Unit	Source of Technology		Target	Availability of Technology				
			Local	External		2005/06	2006/07	2007/08	2008/09	2009/10
" " "	Develop information for the monitoring of East Coast Fever so that it does not enter into country through Sudan and Kenya borders	Nº.	√		3	-	-	-	-	3
Regions with adequate and inadequate rain fall	Identification of local cattle species that resist 'Gendi' disease and that provide better production	Nº.	√		2	-	-	1	-	1
For all types	Initiate information by identifying the quality and curing capacity of animal pharmaceuticals in the market to inform policy makers	Nº.	√		4	-	1	1	1	1
" " "	Conduct sample tests on export animals and animal products for the purpose of identifying transmitted diseases	Nº.	√		5,600	-	1,400	1,400	1,400	1,400
Regions with adequate and inadequate rain fall	Develop one meat sheep species weighing 30 k.g. per year	Nº.	√		1					1
Regions with three agro-ecological zones	Develop technology to standardize quality of sheep, goat and cattle meat as well as hides and skin products for exports	Nº.	√		3				2	1
" " "	Identification of cattle species and productivity suitable for mechanized animal fattening	Nº.	√		1					1
" " "	Develop information to standardize the quality of meat as well as hides and skin products	Nº.	√		1			1		
" " "	Develop fish food and feeding technology to promote fish production in artificial methods	Nº.	√		1	-	-	1	-	-
" " "	Develop fish, agriculture and farm cultivation technology in an integrated manner	Nº.	√		1	-	-	1	-	-
Regions with adequate and inadequate rain fall	Develop market information on the potentials of fish production ("Koroso", "Amabaza" and "Duba") in Tanna, Zewai, Langano and Koka lakes as well as developing techniques for its proper utilization	Nº.	√		9	-	1	2	3	3
Regions with three agro-ecological zones	Develop information indicating fish species located in Black Nile, White Nile, Omo, Gibe, Wabishebele, and Tekeze rivers as well as in Rift Valley and Tana lakes	Nº.	√		7	-	1	2	2	2

Development Potentials	Type of Technology/Information	Unit	Source of Technology		Target	Availability of Technology				
			Local	External		2005/06	2006/07	2007/08	2008/09	2009/10
Regions with adequate and inadequate rain fall	Develop information indicating the scope and cause of inefficient utilization of fish production in Zewai, Koka and Tanna lakes in line with its protection mechanisms	Nº.	√		3	-	-	1	1	1
Regions with adequate rain fall	Develop information on conservation and reproduction methods to increase production and productivity of hybrid milk cows	Nº.	√		6	-	1	1	2	2
” ” ”	Develop technologies that conserve milk and milk products by using spices from natural plant species	Nº.	√		2	-	1	-	1	-
” ” ”	Develop information on the fleshiness of local and hybrid oxen	Nº.	√		3	1	-	1	-	1
” ” ”	Develop ploughing information on compatability of farm oxen and horses with different farming instruments	Nº.	√		4	-	1	2	-	1

C: Agricultural Research Targets for Inadequate Rainfall Areas

Development Potentials	Expected Outcome	Unit	Source of Technology		Target	Availability of Technology				
			Local	External		2005/06	2006/07	2007/08	2008/09	2009/10
Regions with inadequate rain fall	Draught resistant high productivity finger-millet species			√	1		1			
” ” ”	Draught resistant 'Masho' species with high productivity		√	√	2		2			
” ” ”	Draught resistant sorghum species with high productivity		√		4		1	1	1	1
” ” ”	Improved maize species		√		8	2	2	2	2	2
” ” ”	High productivity rice species developed with irrigation		√		5		1	2	1	1
” ” ”	Draught resistant 'Teff' species with high productivity		√		3	1		1	1	
” ” ”	Draught resistant 'Degera' species with high productivity		√		1		1			
” ” ”	Draught resistant 'Ergib' field peas" species with high productivity		√		1		1			

Development Potentials	Expected Outcome	Unit	Source of Technology		Target	Availability of Technology				
			Local	External		2005/06	2006/07	2007/08	2008/09	2009/10
” ” ”	Provision of one sesame species with high productivity for Eastern Harari		√		1					1
” ” ”	Ground nuts species that will ripe/mature in short period of time		√		1				1	
” ” ”	Improved water shed conservation technology, improved crop production system, type and amount of fertilizer used per hectare, and improved crop management system		√		10		4	3	2	1
” ” ”	Rain forecasting model for reliable decisions, provision of national weather map that supports agricultural research, provision of metrology information and provision of information on water availability for major crops in Melkasa area and in rain inadequate areas		√		5		1	1	2	1
” ” ”	Activities of water harvesting		√		2				1	1
” ” ”	Integrated soil fertility and crop nutrient utilization		√		2				1	1
Pastoral areas	One cereal and mixuture of forage developer		√		2				1	1
” ” ”	One forage crops plantation and cutting		√							
” ” ”	Green forage and grass species		√		7			2	3	2
	Provision of information for improved forage for goats, milk production, information on sheep behavior in Afar region, information on camel breeding and milk production in Afar and Somali regions , information on transmission of camels' TB disease, information on camel breeding and marketing in Dire Dawa and Somali regions and information on impacts of poisonous plants on camel breeding		√		6				2	4

D: Soil and Water Sector Research Targets

Development Potentials	Expected Outcomes	Unit	Source of Technology		Target	Availability of Technology				
			Local	Eternal		2005/06	2006/07	2007/08	2008/09	2009/10
Regions with adequate rain fall	Five species of trees with a good potential of soil conservation will be brought from abroad and be on trial plantation			√	5			2	2	1
” ” ”	Additional irrigation water usage in Holeta (tomato), Ginchi (chick peas), Bekoji (onion and potato)		√		5		2	1	2	
” ” ”	Production of potato in Jeldu area using water harvesting technique and drip irrigation system		√		1			1		
” ” ”	Information on local soil & water conservation methodologies in Jima, Debre Zeit, and Pawe		√		3	2		1		
” ” ”	Expanded water coverage and coordinated work in Yerere, Bisheda and Arsi area		√		3				3	
” ” ”	Eroded land rehabilitation in Chefe Donsa area		√		1		1			
” ” ”	Wet farm land management on Nitosole soil in Holeta		√		1			1		
” ” ”	Information on land utilization in Alemaya and suitability study on Lake Adele for agriculture		√		1			1		
” ” ”	Different assessment studies on soil and water conservation methodologies in Yerere and Aru		√		2		1			1
Regions with inadequate rain fall	Successful water harvesting works in Debre zeit, Chefe Donsa and Aldege areas		√		2		1			1
” ” ”	Run-off water and soil erosion assessment data for Measso area		√		1			1		
Irrigable areas	Middle Awash Basin (rice, cotton and onion), Upper Awash basin (orange and mandarin), in the rift valley (maize, haricot beans, sorghum, potato, onion, tomato), in Wondo Genet (rosemary & mint) amount and the time of irrigation		√		13		2	5	2	4

Development Potentials	Expected Outcomes	Unit	Source of Technology		Target	Availability of Technology				
			Local	Eternal		2005/06	2006/07	2007/08	2008/09	2009/10
	water									
” ” ”	Provision of crops irrigation water needs assessment study & crops information in the Middle Awash (cotton & sesame), in the rift valley (maize, haricot beans, sorghum, onion, tomato)		√		7		2	2	3	
” ” ”	Awash river water quality assessment study on how the suitability of irrigation is affected by the sewerage from coffee washing water		√		2			2		
” ” ”	Assessment and M&E information on large & small size irrigated farms for future research work use		√		5					5
Regions with adequate rain fall	Collect samples from red soil, cambisoil, and fluvisoil to identify the micro nutrient content of the soils where wheat, maize, 'Teff' & fruits grow		√		4		1	1	1	1
” ” ”	Identification of the effect of manufactured fertilizers on wheat, 'Teff', faba beans production in west and SW Shewa		√		4		1	1	1	1
” ” ”	Based on soil research, application of standard amount of fertilizer on wheat and 'Teff' that grows in different agro ecological zones		√		2		1	1		
” ” ”	Identification of the response of Teff to potassium fertilizer in Akaki, Alem Tena and Minjar areas		√		1			1		
” ” ”	Identification of micro nutrient content of soils from samples collected from pilot soil study sites		√		1			1		
” ” ”	Identification of the amount of nitrogen & phosphorous fertilizers to be applied on		√		1			1		

Development Potentials	Expected Outcomes	Unit	Source of Technology		Target	Availability of Technology				
			Local	Eternal		2005/06	2006/07	2007/08	2008/09	2009/10
	linseed farms in Kumsa area									
” ” ”	Provision of alternative technology for acidic soil areas		√		1				1	
” ” ”	Identification of three micro particles which can increase supply of phosphorous for soils which have phosphorous retention problem and preparation a fertilizer from them		√		3	1		1		1
” ” ”	Preparation of a fertilizer from six micro particles which can produce nitrogen nutrient from air for faba beans, peas, chick peas, lentils, soya beans, grass peas and fenugreek		√		7			3		4
” ” ”	Identification of three micro particles which can be used to prepare a fertilizer from dead bodies and introduce the scientific method of preparing 'kizel' to users		√		3		1		1	1
Regions with inadequate rain fall	Identification of the effect of gypsum & nitrogen on cotton production in Worere area		√		1		1			
” ” ”	Identification of three micro particles which can be used to prepare a fertilizer from dead bodies and introduce the scientific method of preparing 'kizel' to users		√		3		1		1	1
” ” ”	Prepare a fertilizer for haricot beans and ground nuts from one micro particle which can produce nitrogen nutrient		√		2	1		1		
Regions with adequate rain fall	Preparation of soil map for Debre Birhan, Wondo genet and Asosa research centers				3		3			
” ” ”	Preparation of soil map for Humera, Axum and Mitsemeri research centers				3		3			
” ” ”	Preparation of soil map for Bonga, Gambella and Yabelo research centers				3			3		
Regions with inadequate rain fall	Preparation of soil map for Gode and Semera research centers				2					2

E: Forest Sector Research Targets

Development Potentials	Technology	Unit	Source of Technology		Target	Availability of Technology				
			Local	Eternal		2005/06	2006/07	2007/08	2008/09	2009/10
Regions with adequate rain fall	For the prevention of Juniperous pests, four types of wasp insects will be brought from abroad for breeding purposes to identify and produce information on their ability to prevent Juniperous infections	Information		√	1				1	
Regions with adequate and inadequate rain fall	To bring different species of trees from abroad to check their suitability for different areas and study their growth behavior to get a better tree species	Type of tree		√	8		3		4	1
Regions with adequate rain fall	Identify species with a better growth potential for local Juniperous, Gravilia and 'Tikur inchet'	N ^o . of species	√		6		2	2		2
Regions with adequate and inadequate rain fall	Identification of multi purpose species of trees and forest plant species on 'Koticha' soil type of the central 'Kola' & 'Dega' areas of the country	Type of tree/shrubs	√		11		2	6		3
Regions with adequate rain fall	Preparation and dissemination of a manual (model) to identify the maturity date and management of foreign Juniperous for better production	N ^o . of manuals	√		1		1			
” ” ”	Provision of suitable technology for manual breeding and trial plantation of the unutilized local species of trees (Bamboo, Trilipsum and Vitilaria)	N ^o . of species	√		4				2	2
” ” ”	Provision of technology for improving productivity and production rates of four types of crops besides different species of forest plants that improve farm land fertility	N ^o . of technology	√		5		1	2		2
” ” ”	Provision of documented land suitability information for mixed farming practices for different fruit types with trees	Amount of land	√		3			3		

Development Potentials	Technology	Unit	Source of Technology		Target	Availability of Technology				
			Local	Eternal		2005/06	2006/07	2007/08	2008/09	2009/10
” ” ”	Provision of technology for enhancing the natural growth potential of 'Shemele'	N ^o . of technology	√		1	1				
” ” ”	A study on lumber produced from 9 domestic and 3 foreign species of trees about the resistance of the lumber from ant and fungus invasion as well as provision of technology to make the lumber durable	N ^o . of technology	√	□	2			1	1	
” ” ”	Report/data on selected local tree species about circulation of minerals, suitability of trees for fire wood provision and forage for animals	Information/data	√		3		3			
” ” ”	Coverage, quality and natural growth behavior data on local tree species that are available in the dispersed forests of the country	Type of tree	√		2				1	1
” ” ”	Assessing the effect of cutting age of foreign Juniperous trees, plantation area preference and management on the quality of timber produced	Information/data	√		1				1	
” ” ”	Provision of technology for the production of mushrooms for food and medicine from agricultural and forest by products	N ^o . of technology	√		2		1		1	
” ” ”	Provision of technology for multi purpose use of timber from Deglupta Eucalyptus tree and local Juniperous tree	N ^o . of technology	√		2		2			
” ” ”	Provision of technology for intensified and diversified use of Bamboo timber for making home and office furniture	N ^o . of technology	√		1					1
” ” ”	Provision of technology for the production of pillars that are used in construction works and which are made from four weak and strong type of timber trees clustered together	N ^o . of technology	√		1		1			
” ” ”	Provision of technology for the production of strong wall boards from agricultural and forest by products, which will be used for building houses	N ^o . of technology	√		1				1	

Development Potentials	Technology	Unit	Source of Technology		Target	Availability of Technology				
			Local	Eternal		2005/06	2006/07	2007/08	2008/09	2009/10
” ” ”	Data on the identification of non-wood type produces available in natural forests, their socio-economic use and their interaction with forest and environmental development	Data	√		3		1	1		1
” ” ”	Data on the production techniques, quality and quantity of essential oils from different tree species	Technology/ data	√		4		1	1		2
” ” ”	Provision of technology for enhancing growth potential and imperishability as well as generation of data on local species of trees in terms of their flowering, fruiting and harvesting season in different ecological zones	Type of tree	√		11		6	4	1	
” ” ”	Identification of seed & seedling growth potential, difference between different local tree species in the different ecological zones and preparation of a report on improved seed findings.	Type of tree	√		3	3				
Regions with inadequate rain fall	Prepare a pot size seedling machine for the plantation of red eucalyptus tree and local Juniperous tree seedlings	N ^o . of technology	√		2	1	1			
” ” ”	Data on local and foreign mixture of trees to cover degraded land and data on seedling bag size for seedlings	N ^o . of technology	√		4		2	1	1	
” ” ”	Provision of techniques to enhance productivity and production level besides forest plants for two crop types which have a potential for improving soil fertility	N ^o . of technology	√		2		1		1	
” ” ”	Provision of technology for the conservation of Acacia forests which are becoming extinct as well as for the rehabilitation of degraded mountains	N ^o . of technology	√		4				1	3

Development Potentials	Technology	Unit	Source of Technology		Target	Availability of Technology				
			Local	Eternal		2005/06	2006/07	2007/08	2008/09	2009/10
Pastoral areas	Preparation of a research report on behavior of growth of seedlings in nurseries and plating areas of the tree species which could be used for animal forage in Borena area	Nº. of technology	√		2			2		
” ” ”	Documentation of type of trees and shrubs in terms of their quality, quantity, behavior and, production methodology that could be used for the production of Gums and insane,	Information/ technology	√		4				2	2

F: Biotechnology Research Targets

Sector/Program/Project	Unit	Source of Technology		Target	Availability of Technology				
		Local	External		2005/06	2006/07	2007/08	2008/09	2009/10
Preparation of efficient production protocol for coffee, pine apple, Hale, 'black pepper, cassava, vanilla, potato, 'Insete', geranium, 'Teyritrem', citrus, banana and garlic	Nº. of technology	√		16	2	3	4	4	3
Nº of pine apple seedlings	Nº in million	√		7.3	0.001	0.6	2.2	2.2	2.3
Nº of potato seedlings	Nº in million	√		0.6		0.02	0.03	0.05	0.5
Nº of Coffee seedlings	Nº in million	√		3.1			0.1	0.5	2.5
Provision of technology for rapid breeding of hybrid cattle through the technique of transplantation of fetus	Nº. of technology	√		2		1		1	
Provision of technology for the use of Risobium bacteria for enhancing productivity	Nº. of technology	√		2		1		1	
Microbial biotechnology for preparation of Risobium inoculants for fertilizer	Amount in k.g.	√		4.1		0.1	0.5	1.5	2

G: Agricultural Mechanization Targets

Development Potentials	Technology	Unit	Source of Technology		Target	Availability of Technology				
			Local	External		2005/06	2006/07	2007/08	2008/09	2009/10
Regions with adequate rain fall	Cotton sowing		√		1	1				
” ” ”	Collector for 'Yee'		√	√	1	1				
Regions with inadequate rain fall	Tomato seed separator		√		1	1				
Regions with adequate rain fall	'Amecho' cutter			√	1		1			
Regions with adequate rain fall	Cotton seed separator		√	√	1			1		
” ” ”	Cereal and pulses cleaner		√	√	1				1	
” ” ”	Extruder		√	√	1					1
” ” ”	Combiner		√	√	1					1
Pastoral areas	Forage mixer		√		1					1
Regions with adequate rain fall and pastoral areas	Production catalogue/ specification, user manual with a price tag/		√	√	2	1				1

H: Food Science and Post Harvest Technologies Research Goals

Development Potentials	Technology	Unit	Source of Technology		Target	Availability of Technology				
			Local	External		2005/06	2006/07	2007/08	2008/09	2009/10
For all types	Technologies for fruits and vegetables preservation		√		4	1	1	1	1	
” ” ”	Children food preparation technologies		√	√	2			1	1	
” ” ”	Food quality indicator technologies		√	√	2	1		1		
” ” ”	Information on food processing quality characteristics depending on crop varieties		√	√	5	1	1	1	1	1

I: Socio-economic Research Goals

Outcome/Output	Unit	Source of Information		Target	Availability of Technology				
		Local	External		2005/06	2006/07	2007/08	2008/09	2009/10
Conduct impact assessment on the adapted technologies for milk cows, linseed, bread wheat, haricot bean, and the changes observed on the livelihood of the farmer		√		4		2	2		
Information kit on the changes in productivity and livelihood of farmers due to the adoption of new technologies		√		1				1	
Research document on the acceptance of four new disseminated technologies (2002/03-2005/06)		√		1					1
Information kit on agricultural outputs produced in Arsi, Rift valley, East & West Showa and Asosa areas and on marketing condition/profitability of the products		√		5	1	1		2	1
Cost and benefit analysis on Adea Liben woreda small irrigation scheme production and market profitability activity		√		1	1				
Economical analysis on the benefit to use manure as fertilizer rather than for fuel purpose		√		1			1		
Economic analysis on disaster prevention and resistance alternatives for the farmers of East and West Showa zones		√		1				1	
Produce information on the kind of food prepared from potatoes/chips and its marketing condition		√		1	1				
Market research of livestock market in the border of neighboring countries		√		1		1			
Study on central Ethiopia seed multiplier organizations as well as on their working and marketing system		√		1		1			
Market research on cattle and meat export		√		1					1
Research on major local and foreign high market demand products processing and marketing condition		√		1	1				
Identification of ways to produce and supply market oriented products in the growing agricultural products		√		1	1				
Information on cultural, natural, and institutional agricultural problems to enhance productivity in 'Dega', 'Weynadega' and 'Kola' ecological zones of the country		√		2		1	1		

Provision of information on research, development, extension and policy alternatives on local and foreign high market demand agricultural products and on agro ecological producing methods to enhance farmers productivity		√		1				1	
Information kit on enhanced utilization of natural resources and on challenges in the process of preserving natural resources in 'Dega' 'Weynadega' and 'Kola' ecological zones of the country		√		1					1

J: Livestock, Crops, and Forest Seed Variety Expected to be Multiplied in the PASDEP Period 5 and Agricultural Mechanization Equipments

Development Potentials	Type	Unit	Seed Category	Target	2005/06	2006/07	2007/08	2008/09	2009/10
Crop Type									
Irrigable areas	Cotton	Qt.	Basic	2,500	300	400	500	600	700
” ” ”	Cotton	Qt.	Pre basic	1,500	200	250	300	350	400
” ” ”	Root crops	Qt.	Pre basic	650	75	100	125	150	200
” ” ”	Spices	Qt.	Pre basic	100	10	15	20	25	30
” ” ”	Cereals	Qt.	Pre basic	2,600	100	250	500	750	1,000
” ” ”	Plants for essential oils and pharmaceutical purpose	Seedling/pieces	Pre basic	45	-	-	10	15	20
” ” ”	Cotton	Qt.	Seed multiplier	360	50	60	70	80	100
” ” ”	Root crops	Qt.	Seed multiplier	500	50	75	100	125	150
” ” ”	Plants for essential oil and medicine purpose	Seedlings/pieces	Seed multiplier	42.5	-	5	10	12.5	15
” ” ”	Plants for essential oil and medicine purpose	Seedlings/pieces	Seed multiplier	6,500		1,000	2,000	3,000	500
Regions with adequate rain fall	Fruits	Nº.	Seedlings	100,000	10,000	15,000	20,000	25,000	30,000
” ” ”	Coffee	Nº.	Seedlings	50,000	5,000	7,500	10,000	125,00	15,000

” ” ”	Fruits	Nº.	Branch	100,000	10,000	15,000	20,000	25,000	30,000
” ” ”	Cereals	Qt.	Basic	25,000	4,000	4,500	5,000	5,500	6,000
” ” ”	Pulses	Qt.	Basic	7,500	1,000	1,250	1,500	1,750	2,000
” ” ”	Oil seeds	Qt.	Basic	6,250	750	1,000	1,250	1,500	1,750
” ” ”	Vegetables	Qt.	Basic	62	7	10	12	15	18
” ” ”	Coffee	Qt.	Basic	450	80	85	90	95	100
” ” ”	Potato	Nº.	Basic	3,500	600	650	700	750	800
” ” ”	Fruits	Nº.	Pieces	100,000	10,000	15,000	20,000	25,000	30,000
” ” ”	Cereals	Qt.	Pre basic	15,000	2,000	2,500	3,000	3,500	4,000
” ” ”	Pulses	Qt.	Pre basic	2,500	400	450	500	550	600
” ” ”	Oil seeds	Qt.	Pre basic	1,750	250	300	350	400	450
” ” ”	Vegetables	Qt.	Pre basic	36	5	6	7	8	10
” ” ”	Potato	Nº.	Pre basic	2,500	400	450	500	550	600
” ” ”	Cereals	Qt.	Seed Multiplier	585	100	110	120	125	130
” ” ”	Pulses	Qt.	Seed Multiplier	600	100	110	120	130	140
” ” ”	Oil seeds	Qt.	Seed Multiplier	175	25	30	35	40	45
” ” ”	Vegetables	Qt.	Seed Multiplier	15	1	2	3	4	5
” ” ”	Potato	Nº.	Seed Multiplier	1,500	200	250	300	350	400
Livestock Technology									
Regions with adequate rain fall	Hybrid cow	Nº.		200	30	35	40	45	50
” ” ”	Improved bull	Nº.		50	10	10	10	10	10
” ” ”	Chickens	Nº.		7,500	1,000	1,200	1,500	1,800	2,000
” ” ”	Developed egg	Nº.		4,950	500	750	1,000	1,200	1,500
” ” ”	Fish....			100,000	10,000	15,000	20,000	25,000	30,000
Forest Tree Varsity									
Regions with adequate rain fall	Collect and distribute 40 foreign and local tree varieties and	kg.		40,000	8,000	8,000	8,000	8,000	8,000
” ” ”	Forest tree seed	Tone		46	7	8	9	10	12

” ” ”	Forest tree seedlings	N ^o .		57,500	5,000	7,500	10,000	15,000	20,000
” ” ”	Establish new seed supply center to collect qualified and improved seed variety	Hectare		40		5	10	15	10
Mechanized Agriculture Equipments									
Regions with inadequate rain fall	Cotton sawing	N ^o .		3	3				
” ” ”	'Yee' collector	N ^o .		5	5				
” ” ”	Tomato seed identifier	N ^o .		3	3				
Regions with adequate rain fall	'Amcho' chopper	N ^o .		3		3			
Regions with inadequate rain fall	Cotton seed identifier	N ^o .		3			3		

K: Evaluation Activities of Technologies on Selected Farm Plots

Development Potentials	Improved Technology	Unit	Target	Year				
				2005/06	2006/07	2007/08	2008/09	2009/10
Regions with adequate and inadequate rain fall	Pre-extension technology evaluation and transition activity	N ^o . of technology	150*	36	38	43	46	47
” ” ”	Preparation and provision of trainings on improved agricultural technology for development agents and farmers' representatives	N ^o . of trainee	10,956	1,660	2,062	2,175	2,425	2,634
For all types	Preparation and provision of trainings on different food processing technologies as well as introducing the technologies for the beneficiary	N ^o . of trainings	6	1	2	1	1	1
Regions with adequate and inadequate rain fall	Preparation and provision manuals and brochures on agricultural extension materials and technology utilization methods	N ^o . of material	139	30	19	11	41	38
” ” ”	Preparation of consultation, experience sharing and information exchange forums among stakeholders /workshops, exhibition and field visits		75	39	39	39	39	39

*One technology can be introduced over one year in different areas hence number of technologies in each year does not add together.

L: Model Technology Introducing and Scaling-up Activity of Improved and Profitable Agricultural Technologies

Development Potentials	Improved Technology	Unit	Target	Year				
				2005/06	2006/07	2007/08	2008/09	2009/10
Regions with adequate rain fall	Pulses (haricot bean, lentils, chick peas, faba beans, field peas, soya bean) and for micro organisms that improve soil fertility	N ^o . of participants	3,522	690	759	835	918	1,010
Regions with inadequate rain fall		N ^o . of participants	1,822	300	330	363	399	430
Regions with adequate rain fall	Cereals (macaroni wheat, finger millet, maize, barley and sorghum)	N ^o . of participants	2,936	481	529	582	640	704
Regions with inadequate rain fall		N ^o . of participants	4,965	814	895	984	1,082	1,190
Regions with adequate rain fall	Oil seeds (sesame, ground nuts, 'Neug', rape seed, linseed)	N ^o . of participants	1,220	200	220	242	266	292
Regions with inadequate rain fall		N ^o . of participants	492	81	89	98	107	117
Regions with adequate rain fall/irrigable areas	Vegetables (onion)	N ^o . of participants	791	130	143	157	172	189
Regions with adequate rain fall	Root crops (sweet potatoes, potatoes, cassava)	N ^o . of participants	1,589	261	287	315	346	380
” ” ”	Fruits (papaya, avocado, banana, pineapple)	N ^o . of participants	757	124	136	150	165	182
” ” ”	Plants for essential oil and pharmaceutical purpose (Pyrethrum ,Artemisia)	No. of participants	1,831	300	330	363	399	439
” ” ”	Provision of technology kits on animal forage, animal feeding techniques, "Fayomi" poultry, mechanized sheep, cattle and milk cows	N ^o . of participants	2,060	260	290	312	436	762
Pastoral areas	Provision of technology kits on animal forage, animal feeding techniques, "Fayomi" poultry, mechanized sheep, cattle and milk cows	No. of participants	766	125	138	152	167	184
Regions with adequate rain fall	Poultry	N ^o . of participants	85	7	10	15	23	30
Addis Ababa and its surrounding areas	Animal health, hides and skin and disease control	N ^o . of participants	304	50	55	60	66	73
Regions with adequate rain fall	Soil, water and acidic soil conservation	N ^o . of participants	1,463	240	264	290	319	350
Regions with inadequate rain fall	Provision of forest technology (Boswellia (incense) tapping technology, Acacia Senegal,	N ^o . of participants	304	50	55	60	66	73

	Eucalyptus, degraded land rehabilitation frame forestry)							
Regions with adequate rain fall	Fishery	Nº. of participants	95	15	17	19	21	23

Annex Table 7.2: Education Sector Development Targets

Linkage with the MDGs	Expected Result	Indicator	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
MDGs	1. Increase 1 st cycle primary education enrolment rate	Primary education 1 st cycle gross enrolment coverage (1-4) (%)	102.7	111.6	121.3	126.4	123.9	118.3
		➤ Female	95.5	106.2	117.3	123.4	121.7	116.7
		➤ Male	109.8	116.9	125.2	129.3	126.1	120.0
		Primary education 1 st cycle gross enrolment coverage (1-4) in less developed two regions (%)						
		➤ Afar	30.7	44.8	63.0	84.0	104.8	122.5
		➤ Somali	23.3	40.8	60.0	84.0	104.8	122.5
		Primary education 1 st cycle net enrolment coverage (1-4) (%)	67.6	70.6	74.6	78.6	82.6	86.6
		➤ Female	65.1	68.3	72.3	76.3	80.3	84.3
		➤ Male	69.9	72.9	76.9	80.9	84.9	88.9
	2 Increase 2 nd cycle primary education enrolment rate	Primary education 2 nd cycle gross enrolment coverage (5-8) (%)	52.5	58.2	62.6	69.6	84.5	100.2
		➤ Female	42.6	51.8	59.3	68.8	86.5	104.2
		➤ Male	62.0	64.4	65.8	70.3	82.6	96.3
		Primary education 2 nd cycle net enrolment coverage (5-8) (%)	33.9	39.9	45.8	51.8	57.8	63.8
		➤ Female	29.4	35.3	41.3	47.3	53.3	59.3
		➤ Male	38.3	44.0	50.0	56.0	62.0	68.0
	3. Increase 1 st cycle secondary education enrolment rate	Secondary education 1 st cycle gross enrolment coverage (9-10) (%)	27.3	30.0	32.4	34.4	36.2	39.0
		➤ Female	19.8	21.7	23.9	26.9	30.1	36.1
		➤ Male	34.6	35.3	36.0	37.3	38.4	39.7
4. Increase preparatory secondary school acceptance/enrolment capacity	Preparatory secondary school gross acceptance/enrolment capacity (11)	45,671	72,658	121,309	158,574	181,915	212,807	
	➤ Female	14,582	18,131	44,084	58,543	71,750	89,299	
	➤ Male	31,582	54,527	77,225	100,031	110,165	123,507	
MDGs 2,3,4,6	5. TVET acceptance/enrolment capacity	TVET acceptance/enrolment capacity	94,592	137,625	243,009	265,044	304,058	312,826
		➤ Female	48,431	70,464	124,421	135,703	155,678	160,167
		➤ Male	46,161	67,161	118,588	129,342	148,380	152,659
	6. Increase higher education under graduate program acceptance/enrolment	Higher education under graduate program acceptance/enrolment capacity	36,405	40,440	41,050	70,043	116,097	150,077
		➤ Female	8,883	10,514	11,904	25,916	44,117	58,530

Linkage with the MDGs	Expected Result	Indicator	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
	capacity	➤ Male	27,522	29,925	29,145	44,127	71,980	91,547
	7. Increase post graduate education acceptance/enrolment capacity	Post graduate education acceptance/enrolment capacity	3,884	6,550	11,413	16,275	21,138	26,000
		➤ Female (%)	24	26	29	37	38	39
	8. Decrease dropout rate	➤ Male (%)	76	74	71	63	62	61
		Grade one dropout rate (%)	22.4	19.1	15.9	12.7	9.5	6.3
		➤ Female	22.0	18.8	15.7	12.5	9.3	6.2
		➤ Male	22.7	19.4	16.1	12.9	9.6	6.3
		Primary education dropout rate (girls) (%)	13.6	11.2	9.1	6.9	5.3	3.8
		Repetition rate (4-8) (%)	5.3	4.7	4.1	3.5	2.9	2.3
		Repetition rate (4-8) (girls) (%)	6.2	5.4	4.7	3.9	3.3	2.6
MDGs 2	9. Increase 1 st cycle primary education completion rate	Primary education completion rate for grade 5 (%)	57.4	78.4	77.8	88.7	121.1	136.6
	10. Increase 2 nd cycle primary education completion rate	Primary education completion rate for grade 8 (%)	34.3	38.7	41.6	44.5	58.1	62.7
MDGs 2	11. Improve pupil/classroom ratio	Primary and secondary education pupil/classroom ratio						
		➤ Primary 1 st cycle education pupil/classroom ratio	71.0	66.8	62.6	58.4	54.2	50.0
		➤ Primary 2 nd cycle education pupil/classroom ratio	68.4	64.7	61.1	57.4	53.7	50.0
		➤ Secondary education pupil/classroom ratio	78.0	73.9	67.9	61.9	56.0	50.0
	12. Improve primary education pupil/textbook ratio	Primary education pupil/textbook ratio	2:1	1.5:1	1:1	1:1	1:1	1:1
	13. Improve pupil/teacher ratio	Primary 1 st cycle education pupil/teacher ratio	71	69	65	61	58	54
		Primary 2 nd cycle education pupil/teacher ratio	55	55	52	50	47	45
		Secondary 1 st cycle education pupil/teacher ratio	56	50	48	45	43	40
MDGs 3	14. Decrease the gender gap at the various steps	Primary 1 st cycle education gender gap indicator (1-4)	0.87	0.91	0.94	0.95	0.97	0.97
		Primary 2 nd cycle education gender gap indicator (5-8)	0.69	0.80	0.90	0.98	1.00	1.00
		Secondary education gender gap indicator (9-10)	0.57	0.61	0.66	0.72	0.78	0.91
	15. Incase the rate of trained teachers at the various levels	Rate of trained primary 1 st cycle education teachers (1-4) (%)	97.1	98.3	99.2	99.8	99.8	99.8
		Rate of trained primary 2 nd cycle education teachers (5-8) (%)	55	63	69	74	87	95
		Rate of trained secondary education teachers (9-12) (%)	41	51	61	66	71	88
	16. Share of education	Share of public education budget from total public expenditure (%)	16.7	18.1	15.3	15.2	15.3	14.5

Linkage with the MDGs	Expected Result	Indicator	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
	budget from the total national budget							
	17. Education input	Classrooms built for primary education		23,358	25,375	28,322	41,376	32,395
		Classrooms built for secondary education		2,960	2,960	2,960	2,960	8,047

Annex Table 7.3: Health Sector Development Targets

Indicators	Base Line (Achievements by the End of 2004/05)	PASDEP Targets (2009/10)
Infant mortality rate	77/1,000	45/1,000
Under five mortality rate	140/1,000 (2003/04)	85/1,000
Maternal mortality rate	871/100,000 (2003/04)	600/100,000
Proportion of patients cured from TB (%)	76	85
DPT 3 coverage (%)	70	80
CPR (%)	15	60
Deliveries attended by skilled attendants (%)	9	32
Out-patient visits per capita	0.3	0.6
Proportion of households in malaria exposed areas with bed nets properly utilized (%)	1	100
Doctor/population ratio	1: 26,527	1: 14,662
Health extension workers/population ratio	1: 25,000	1: 2,500

Annex Table 7.4: HIV/AIDS PASDEP Targets

Indicators	Target					
	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
Prevalence rate among 15-24 years old pregnant women	8.6	8.6	8.6	8.6	8.4	8.4
Percentage of HIV positive pregnant women receiving complete course of ARV	42	42	44	46	48	50
Percentage of people aged 15-24 years reporting the use of condom during last sexual intercourse with non regular partners	-	45	47	50	55	60
Percentage of people with advanced HIV receiving ART	10	10	30	50	60	70
Ratio of current school attendance among orphans to that of non orphans age 10-14	-	55	60	70	80	80
Percentage of annual government budget allocated for HIV/AIDS	-	1.5	1.6	1.8	2	2
Percentage of institutions (state & non state) having HIV/AIDS work place policies and strategies	-	15	20	40	60	80

Annex Table 7.5: Water Supply Targets for the PASDEP Period

I. Urban Water Supply PASDEP Targets

Indicator	2005/06	2006/07	2007/08	2008/09	2009/10	Total
Percentage of population with access to potable water within 0.5 km	80.3	83.5	86.09	89.18	92.52	
Urban water supply centers						
Study and design	69	211	177	116	63	636
Construction	47	103	103	90	114	457
Rehabilitation	36	64	77	70	54	321
Projected cost						
Study and design	17,950	24,775	22,875	11,675	3,500	
Construction	795,856	2,312,461	1,412,735	1,021,073	11,512,656	
Rehabilitation	75,910	49,125	75,395	43,235	30,000	
Total cost	889,716	2,206,361	1,511,008	1,075,983	1,184,766	

II. Urban Water Supply PASDEP Targets Regional Distribution (%)

Region	2005/06	2006/07	2007/08	2008/09	2009/10
Oromia	84	86.5	89.1	91.8	94.5
Amhara	96	96.8	97.5	98.3	99.1
SNNPR	52	58	64.6	72.1	80.4
Tigray	64	69	74.6	80.6	87
Somali	60	65.4	71.3	77.7	84.7
Afar	56	61.6	67.7	74.5	82
Benshangul -Gumuz	66	70.6	75.6	80.5	86.5
Gambella	35	78	82.7	87.6	92.9
Addis Ababa	93	94.4	95.8	97.2	98.7
DireDawa	62	67.3	79.2	86	93.2
Harari	34.2	34.2	34.2	50	70

III. Regional Distribution of Major Activities for Urban Water Supply in the PASDEP Period

Region	Activities	2005/06	2006/07	2007/08	2008/09	2009/10	Total
Oromia	Study and design	7	78	79	39	-	
	Construction	8	30	27	30	38	
	Rehabilitation	9	43	41	41	40	
Amhara	Study and design	14	48	29	29	27	
	Construction	14	18	41	25	27	
	Rehabilitation	5	3	6	4	2	
SNNPR	Study and design	15	25	26	32	25	
	Construction	7	15	12	14	20	
	Rehabilitation	7	7	12	12	12	
Tigray	Study and design	21	19	15	-	-	
	Construction	4	15	6	9	11	
	Rehabilitation	15	3	5	5	-	
Somali	Study and design	2	14	7	-	-	
	Construction	3	4	5	3	5	
	Rehabilitation	-	4	4	5	-	
Afar	Study and design	-	7	-	-	-	
	Construction	1	-	2	-	-	
	Rehabilitation	-	4	2	-	-	
Benshangul - Gumuz	Study and design	8	8	9	16	11	
	Construction	6	9	8	9	16	
	Rehabilitation	-	-	-	-	-	
Gambella	Study and design	-	12	12	-	-	
	Construction	1	12	2	-	-	
	Rehabilitation	-	-	7	3	-	
Addis Ababa	Study and design	1	-	-	-	-	
	Construction	1	-	-	-	-	
	Rehabilitation	-	-	-	-	-	
Dire Dawa	Study and design	1	-	-	-	-	
	Construction	1	-	-	-	-	
	Rehabilitation	-	-	-	-	-	
Harari	Study and design	-	-	-	-	-	
	Construction	1	-	-	-	-	
	Rehabilitation	-	-	-	-	-	
Total	Study and design	69	211	116	63	71	470
	Construction	47	103	90	114	53	407
	Rehabilitation	36	77	70	54	57	294

**IV. Number of Rural Water Supply Centers for Construction and Upgrading
Regional Distribution and Projected Cost**

Region	Activity		Projected Cost
	Construction	Rehabilitation	
Amhara	40,369	18,533	1,623,066
Benshangul -Gumuz	1,063	156	64,006
Gambella	466	59	27,936
Harari	189	133	12,747
Tigray	6,577	2,489	664,510
Oromia	37,596	23,576	2,707,000
SNNPR	15,680	1,990	1,599,457
Afar	1,724	1,153	115,464
Somali	2,562	316	936,587
Dire Dawa	169	103	10,394
Total	106,446	48,510	5,837,168
Secured Fund			2,689,358
Resource Gap			3,147,810

V. Urban Water Supply PASDEP Targets Regional Distribution (%)

Year	Amhara	Benshangul -Gumuz	Gambella	Harari	Tigray	Oromia	SNNPR	Afar	Somali	Dire Dawa
2004/05	34	38	29	22	33	38	34	23	19	41
2005/06	43	46	39	33	43	47	44	30	26	49
2006/07	53	55	49	44	52	56	53	37	34	58
2007/08	62	64	59	55	62	65	62	43	41	66
2008/09	72	73	70	67	71	73	72	50	48	75
2009/10	81	82	80	78	81	82	81	57	55	83

VI. Irrigation Development PASDEP Targets

Activity	Irrigated Land (ha)					Total
	2005/06	2006/07	2007/08	2008/09	2009/10	
Assessment	177,998					17,998
Study and design	95,413	146,966	179,176	30,032.2	12,464	464,051
Construction	32,684	94,603	122,955	100,302	79,517	430,061

VII. Irrigation Development Projected Cost

	2005/06	2006/07	2007/08	2008/09	2009/10	Total
Projected cost	1,887	5,144	5,879	5,151	3,579	21,740
Secured Fund						6,472
External sources						972
Government						5,500
Resource Gap						15,268

VIII. PASDEP Irrigation Development Regional Distribution

Region	Project Name	Irrigated Land (ha)
Amhara	Megech	31,821
	Reab	19,925
	Angereb	23,000
	Gumera	13,976
	Tana Zuria	51,077
	Kobo Gerana	17,000
	Koga	7,200
	EFD Small Scale Irrigation	1,298
Total		165,297
Oromia	Anger	26,563
	Negeso	23,000
	Gelana	5,700
	Orgo Dedesa	14,280
	Belate	500
	Gedabo	5,000
	Ererena Gololcha	11,920
	EFD Small Scale Irrigation	1,075
	Adea Underground Water Study	
	Zeway Irrigation	15,000
	Laygnaw Guder	3,500
	Yadot	3,300
Bale Grdula	5,500	
Welmel	10,000	
Total		125,338
Tigray	Humera	42,965

	EFD Small Scale Irrigation	601
	Rift Vally	18,000
	Dedebet	30,000
	Total	91,566
SNNPR	EFD Small Scale Irrigation	1,455
	Belate	10,200
	Gelana	500
	Amorate	8,700
	Total	20,855
Afar	Keseme Tendaho	90,000
	Awash Flood Protection	
	Alaydege Underground Water Study	
	Total	90,000
Benshangul Gumuz	Laygnaw Beles	53,000
	Dabus	4,335
	Total	57,335
Somali		32,000
	Total	32,000
Gambella	Alwero	10,400
	Total	10,400

Annex Table 7.6: Road Development PASDEP Targets

Target	Indicator	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	Source
1. Increased accessibility	Decreasing the time it takes to reach at all weather roads	5	4.9	4.5	4.1	3.6	3.2	Road Sector Development Reports
	Decreasing areas that require more than 5 hours to reach at all weather roads	72	71	69	67	63	59	Road Sector Development Reports
	Decreasing areas that require more than 2 hours to reach at all weather roads	88	87	86	85	83	81	Road Sector Development Reports
2. Increased road network density	Road network density including public roads (km./1,000 km ²)	33.6	34.9	37.8	41.7	47.5	54.1	Road Sector Development Reports
	Road network density including public roads (km./1,000 people)	0.51	0.51	0.54	0.59	0.65	0.72	Road Sector Development Reports
3. Improved quality of road network	Share of acceptable road network	64	66	71	75	80	84	Road Sector Development Reports
	Share of road development budget from the total budget	22	24	26	28	30	32	Road Sector Development Reports
4. Roads to be constructed	Distance including federal and regional low level roads (km.)	552	1,367	3,160	4,362	6,354	7,214	Project Reports
5. Increase participation of the private sector in road development	Share of the private sector in road construction and rehabilitation (%)	60	75	80	85	85	85	Implementation Report
6. Increase in road traffic activities	Annual average distance traveled by vehicles (in million km.)	5.604	5.884	6.178	6.487	6.811	7.151	Road Traffic Study Reports

Annex Table 7.7: Regional Distribution of Landline and Mobile Phones

Regions	Landline		Mobil	
	By the end of 2004/05	By the end of 2009/10	By the end of 2004/05	By the end of 2009/10
Tigray	29,850	215,247	**	350,000
Afar	2,745	36,448		110,000
Amhara	64,345	623,764		1,300,000
Oromia	117,391	977,424		1,660,000
Somali	5,307	191,833		270,000
Benshangul - Gumuz	1,936	17,851		60,000
SNNPR	42,264	386,144		890,000
Gambella	1,797	12,127		40,000
Harari	7,691	29,204		50,000
Addis Ababa	332,369	681,711		1,660,000
Dire Dawa	14,305	71,590		80,000
Total	620,000	3,243,343	560,000	6,470,000

** The current mobile phones distribution is not specified, as it was not possible to indicate the figure under the prevailing circumstances by regions/administrative cities.

Source: Ethiopian Telecommunication Corporation

Note:

- The need for landlines is projected based on the regions/administrative cities annual population growth.
- The need for mobile phones is projected based on regions/administrative cities GNP.

**Annex Table 8.1: Projected PASDEP Recurrent and Capital Program Cost Requirement Based on the MDGs Needs Assessment
(In Million Birr)**

Sector	2005/06			2006/07			2007/08			2008/09			2009/10			Grand Total		
	Recurrent	Capital	Total	Recurrent	Capital	Total	Recurrent	Capital	Total	Recurrent	Capital	Total	Recurrent	Capital	Total	Recurrent	Capital	Total
Education	4,612	3,624	8,236	5,717	3,655	9,372	6,619	4,993	11,612	7,572	5,048	12,620	8,331	3,571	11,902	32,851	20,890	53,742
Health	1,169	3,555	4,724	2,382	3,295	5,677	3,703	3,169	6,872	5,090	3,043	8,133	6,692	2,782	9,474	19,036	15,844	34,880
Agriculture & Rural Development	1,254	3,763	5,017	946	2,838	3,784	877	2,630	3,506	988	2,965	3,953	1,450	4349	5798	5,515	16,544	22,058
Roads	411	4,715	5,126	316	5,991	6,307	477	9,056	9,533	545	10,362	10,907	564	10,723	11,287	2,313	40,847	43,160
Water & Sanitation	954	2862	3816	1,044	3,131	4,175	1,004	3,012	4,016	442	1,326	1,769	454	1,361	1,815	3,897	11,692	15,590
Irrigation	538	1613	2150	946	2,839	3,785	877	2,630	3,507	1,258	3,773	5,031	1,571	4,712	6,282	5,189	15,566	20,755
HIV/AIDS	52	526	578	79	802	881	109	1,105	1,214	137	1389	1,526	180	1821	2001	558	5,642	6,200
Population & Development	6	93	99	6	660	666	7	186	193	8	232	240	9	106	115	36	1,277	1,313
Power	1,113	8,615	9728	950	11,014	11,964	850	9,091	9,941	1,100	10,219	11,319	980	6,690	7,670	4,993	45,629	50,622
Private Sector Development	821	1,916	2737	821	1,916	2,737	1,318	1,975	3,293	1,318	1,975	3,293	1,318	1,975	3,293	5,594	9,758	15,352
Urban Development	1,454	3,396	4,850	1,454	3,396	4,850	2,335	3,500	5,834	2,335	3,500	5,834	3,500	5,834	93,34.3	11,078	19,625	30,703
Gender & Development	74	87	161	69	62	130	66	55	120	78	34	112	22	96	118	308	333	641
Telecommunication	1,250	3,430	4,680	1,375	4,466	5,841	1,513	7,053	8,566	1,664	7,985	9,649	1,830	6,984	8,814	7,632	29,918	37,550
Grand Total	13,708	38,193	51,901	16,105	4,4063	60,168	19,753	48,454	68,207	22,534	51,852	74,386	26,899	51,003	77,903	98,999	233,566	332,565
GDP at CMP (MDG)			115,543			132,874			152,539			175,030			198,359	30	70	100
Memorandum Items: Others*	900	2,096	2,996	896	2,638	3,533	1,390	2,216	3,606	1,403	2,242	3,645	1,348	2,177	3,526	5,938	11,368	17,306

* Others include private sector development, population & development, and gender & development.

Annex Table 8.2: Projected PASDEP Program Cost Requirements Based on the MDGs Needs Assessment as a Ratio to GDP (%)

Sector	2005/06			2006/07			2007/08			2008/09			2009/10			Average		
	Recurrent	Capital	Total	Recurrent	Capital	Total	Recurrent	Capital	Total	Recurrent	Capital	Total	Recurrent	Capital	Total	Recurrent	Capital	Total
Education	4.0	3.1	7.1	4.3	2.8	7.1	4.3	3.3	7.6	4.3	2.9	7.2	4.2	1.8	6.0	3.5	2.3	5.8
Health	1.0	3.1	4.1	1.8	2.5	4.3	2.4	2.1	4.5	2.9	1.7	4.6	3.4	1.4	4.8	1.9	1.8	3.7
Agriculture & Rural Development	1.1	3.3	4.3	0.7	2.1	2.8	0.6	1.7	2.3	0.6	1.7	2.3	0.7	2.2	2.9	0.6	1.8	2.4
Roads	0.4	4.1	4.4	0.2	4.5	4.7	0.3	5.9	6.2	0.3	5.9	6.2	0.3	5.4	5.7	0.3	4.3	4.6
Water & Sanitation	0.8	2.5	3.3	0.8	2.4	3.1	0.7	2.0	2.6	0.3	0.8	1.0	0.2	0.7	0.9	0.5	1.4	1.8
Irrigation	0.5	1.4	1.9	0.7	2.1	2.8	0.6	1.7	2.3	0.7	2.2	2.9	0.8	2.4	3.2	0.5	1.6	2.2
HIV/AIDS	0.0	0.5	0.5	0.1	0.6	0.7	0.1	0.7	0.8	0.1	0.8	0.9	0.1	0.9	1.0	0.1	0.6	0.6
Population & Development	0.0	0.1	0.1	0.0	0.5	0.5	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.2
Power	1.0	7.5	8.4	0.7	8.3	9.0	0.6	6.0	6.5	0.6	5.8	6.5	0.5	3.4	3.9	0.6	5.2	5.7
Private Sector Development	0.7	1.7	2.4	0.6	1.4	2.1	0.9	1.3	2.2	0.8	1.1	1.9	0.7	1.0	1.7	0.6	1.1	1.7
Urban Development	1.3	2.9	4.2	1.1	2.6	3.7	1.5	2.3	3.8	1.3	2.0	3.3	1.8	2.9	4.7	1.2	2.1	3.3
Gender & Development	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.1
Telecommunication	1.1	3.0	4.1	1.0	3.4	4.4	1.0	4.6	5.6	1.0	4.6	5.5	0.9	3.5	4.4	0.8	3.2	4.0
Grand Total	11.9	33.1	45	12.1	33.2	45.3	13.0	31.8	44.7	12.9	29.6	42.5	13.6	25.7	39.3	10.6	25.6	36.1

**Annex Table 8.3: PASDEP Program Cost Aligned with MEFF
(In Million Birr)**

Sector	2005/06			2006/07			2007/08			2008/09			2009/10			Grand Total		
	Recurrent	Capital	Total	Recurrent	Capital	Total	Recurrent	Capital	Total	Recurrent	Capital	Total	Recurrent	Capital	Total	Recurrent	Capital	Total
Education	4,103	2,515	6,618	4,244	2,601	6,846	4,443	2,723	7,166	4,797	2,940	7,737	4,821	2,955	7,776	22,408	13,734	36,142
Health	702	589	1,291	1,405	1,150	2,555	1,739	1,423	3,161	2,102	1,720	3,822	2,501	2,046	4,547	8,449	6,927	15,376
Agriculture & Rural Development	1,146	3,438	4,584	836	2,507	3,343	789	2,366	3,155	890	2,669	3,558	1,305	3,914	5,218	4,965	14,894	19,858
Roads	207	3,940	4,147	266	5,051	5,317	438	8,323	8,761	509	9,678	10,187	529	10,058	10,587	1,950	37,049	38,999
Water & Sanitation	677	2,032	2,709	731	2,192	2,923	703	2,108	2,811	442	1,326	1,768	454	1,361	1,815	3,006	9,019	12,026
Irrigation	491	1,474	1,965	883	2,648	3,530	816	2,447	3,262	1,182	3,547	4,729	1,414	4,241	5,654	4,785	14,355	19,140
HIV/AIDS				20	200	220	27	276	304	34	347	382	45	455	500	126	1,279	1,406
Power		1,610	1,610	0	3,027	3,027	0	2,023	2,023	0	1,426	1,426	0	1,024	1,024	0	9,110	9,110
Urban Development			0	1,222	2,173	3,395	1,512	2,688	4,200	1,533	2,726	4,259	2,178	3,871	6,049	6,445	11,458	17,903
Telecommunication	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Others*	0	0	0	353	1,024	1,377	399	806	1,206	398	835	1,233	397	753	1,150	1,547	3,419	4,966
Grand Total	7,327	15,597	22,923	9,959	22,573	32,532	10,865	25,183	36,049	11,888	27,214	39,102	13,643	30,677	44,319	53,681	121,244	174,925
GDP at CMP (MDG)			115,543			132,874			152,539			175,030			198,359			100

* Others include private sector development, population & development, and gender & development.

**Annex Table 8.4: Projected PASDEP Program Costs Aligned with the MEFF as a Ratio to GDP
(%)**

Sector	2005/06			2006/07			2007/08			2008/09			2009/10			Average		
	Recurrent	Capital	Total	Recurrent	Capital	Total	Recurrent	Capital	Total	Recurrent	Capital	Total	Recurrent	Capital	Total	Recurrent	Capital	Total
Education	3.6	2.2	5.7	3.2	2.0	5.2	2.9	1.8	4.7	2.7	1.7	4.4	2.4	1.5	3.9	2.5	1.5	4.0
Health	0.6	0.5	1.1	1.1	0.9	1.9	1.1	0.9	2.1	1.2	1.0	2.2	1.3	1.0	2.3	0.9	0.7	1.6
Agriculture & Rural Development	1.0	3.0	4.0	0.6	1.9	2.5	0.5	1.6	2.1	0.5	1.5	2.0	0.7	2.0	2.6	0.6	1.7	2.2
Roads	0.2	3.4	3.6	0.2	3.8	4.0	0.3	5.5	5.7	0.3	5.5	5.8	0.3	5.1	5.3	0.2	3.9	4.1
Water & Sanitation	0.6	1.8	2.3	0.6	1.6	2.2	0.5	1.4	1.8	0.3	0.8	1.0	0.2	0.7	0.9	0.3	1.0	1.4
Irrigation	0.4	1.3	1.7	0.7	2.0	2.7	0.5	1.6	2.1	0.7	2.0	2.7	0.7	2.1	2.9	0.5	1.5	2.0
HIV/AIDS	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.2	0.2	0.0	0.2	0.2	0.0	0.2	0.3	0.0	0.1	0.1
Power	0.0	1.4	1.4	0.0	2.3	2.3	0.0	1.3	1.3	0.0	0.8	0.8	0.0	0.5	0.5	0.0	1.1	1.1
Urban Development	0.0	0.0	0.0	0.9	1.6	2.6	1.0	1.8	2.8	0.9	1.6	2.4	1.1	2.0	3.0	0.6	1.2	1.8
Telecommunication	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Others*	0.0	0.0	0.0	0.3	0.8	1.0	0.3	0.5	0.8	0.2	0.5	0.7	0.2	0.4	0.6	0.2	0.4	0.5
Grand Total	6.3	13.5	19.8	7.5	17.0	24.5	7.1	16.5	23.6	6.8	15.5	22.3	6.9	15.5	22.3	5.8	13.0	18.8

* Others include private sector development, population & development, and gender & development.

Annex Table 8.5: PASDEP Projected Cost Requirement as per the MEFF as a Ratio to Total Required Cost (%)

Sector	2005/06			2006/07			2007/08			2008/09			2009/10			Average		
	Recurrent	Capital	Total	Recurrent	Capital	Total	Recurrent	Capital	Total	Recurrent	Capital	Total	Recurrent	Capital	Total	Recurrent	Capital	Total
Education	89	69	80	74	71	73	67	55	62	63	58	61	58	83	65	68	66	67
Health	60	17	27	59	35	45	47	45	46	41	57	47	37	74	48	44	44	44
Agriculture & Rural Development	91	91	91	88	88	88	90	90	90	90	90	90	90	90	90	90	90	90
Roads	50	84	81	84	84	84	92	92	92	93	93	93	94	94	94	84	91	90
Water & Sanitation	71	71	71	70	70	70	70	70	70	100	100	100	100	100	100	77	77	77
Irrigation	91	91	91	93	93	93	93	93	93	94	94	94	90	90	90	92	92	92
HIV/AIDS	0	0	0	25	25	25	25	25	25	25	25	25	25	25	25	23	23	23
Power	0	19	17	0	27	25	0	22	20	0	14	13	0	15	13	0	20	18
Urban Development	0	0	0	84	64	70	65	77	72	66	78	73	62	66	65	58	58	58
Telecommunication	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Others*	0	0	0	39	39	39	29	36	33	28	37	34	29	35	33	26	30	29
Grand Total	53	41	44	62	51	54	55	52	53	53	52	53	51	60	57	54	52	53

* Others include private sector development, population & development, and gender & development.

**Annex Table 8.6: PASDEP MEFF for the Base-Case Scenario
(Real GDP Growth Rate 7% Per annum)
(In Million Birr)**

Items	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	5-Year Total
Domestic revenue	13,916	15,582	22,465	24,604	27,887	32,633	38,229	145,818
Tax revenue	10,906	12,398	16,164	20,270	24,121	28,680	34,129	123,364
Non tax revenue	3,010	3,184	6,301	4,334	3,766	3,953	4,100	22,454
External grant	4,002	4,565	7,221	6,919	7,839	7,911	8,587	38,477
Domestic revenue and grants	17,918	20,147	29,686	31,523	35,726	40,544	46,816	184,295
Total expenditure	20,520	24,803	36,552	45,066	47,218	49,797	53,461	232,094
Recurrent expenditure	11,977	13,235	16,557	18,873	19,584	20,505	22,118	97,636
Defense expenditure	2,452	2,920	3,000	3,000	3,000	3,000	3,000	15,000
Poverty-oriented recurrent expenditures	4,184	5,342	7,327	9,959	10,865	11,888	13,643	53,681
Agriculture & rural development	870	1,158	1,146	836	789	890	1,305	4,965
Irrigation			491	883	816	1,182	1,414	4,785
Education	2,511	2,981	4,103	4,244	4,443	4,797	4,821	22,408
Health	532	696	702	1,405	1,739	2,102	2,501	8,449
HIV/AIDS				20	27	34	45	126
Water & sanitation	139	375	677	731	703	442	454	3,006
Roads	132	132	207	266	438	509	529	1,950
Urban development				1,222	1,512	1,533	2,178	6,445
Others (poverty-oriented)				353	399	398	397	1,547
Interest payments	1,080	1,011	1,335	1,350	1,417	1,530	1,569	7,201
Domestic	576	525	796	745	738	731	724	3,733
External	504	486	539	605	680	800	845	3,468
External grant (food & related)	699	721	744	525	371	262	185	2,086
Others	3,701	3,616	4,151	4,039	3,931	3,825	3,722	19,668
Capital expenditure	8,271	11,343	19,995	26,193	27,634	29,292	31,343	134,457
Central treasury	5,403	8,376	15,050	19,715	20,799	22,047	23,590	101,201
External Assistance	1,047	1,513	2,386	3,125	3,297	3,495	3,739	16,042
External loan	1,821	1,454	2,560	3,353	3,538	3,750	4,013	17,214
Poverty-oriented capital expenditures	6,130	9,036	15,597	22,573	25,183	27,214	30,677	121,244
Agriculture & rural development	1,875.6	2,888.8	3,438	2,507	2,366	2,669	3,914	1,4894
Irrigation			1,474	2,648	2,447	3,547	4,241	14,355
Education	1,666	1,895.6	2,515	2,601	2,723	2,940	2,955	13,734
Health	346.3	505.4	589	1,150	1,423	1,720	2,046	6,927
HIV/AIDS				200	276	347	455	1,279
Water & sanitation	405	1,109.3	2,032	2,192	2,108	1,326	1,361	9,019
Roads	1,836.4	2,637	3,940	5,051	8,323	9,678	10,058	37,049
Power (rural electrification)			1,610	3,027	2,023	1,426	1,024	9,110
Urban development				2,173	2,688	2,726	3,871	11,458
Others (poverty-oriented)				1,024	806	835	753	3,419
Overall balance including grants	-2,602	-4,655	-6,866	-13,543	-11,492	-9,253	-6,645	-47,799
Overall balance excluding grants	-6,603	-9,220	-14,087	-21,336	-20,952	-19,519	-18,823	-94,716
Gap financed	2,602	4,655	6,865	7,124	8,019	9,083	6,537	37,628

External (net)	2,399	2,384	2,083	2,371	2,633	3,088	3,532	13,707
Domestic (net)			4,782	4,753	5,386	5,995	3,005	23,921
Gap remaining to be financed	2,147	3,492	0	6,419	3,473	170	108	10,170
GDP (CMP)	81,754.5	98,397.9	115,543	132,874	152,539	175,030	198,359	
Total poverty-oriented expenditures	10,174	14,004	22,924	32,532	36,049	39,102	44,319	174,926

**Annex Table 8.7: PASDEP MEFF for the High-Case Scenario
(Real GDP Growth Rate 10% Per annum)
(In Million Birr)**

Items	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	5-Year Total
Domestic revenue	13,916	15,582	22,465	25,590	31,135	38,958	48,906	167,053
Tax revenue	10,906	12,398	16,164	21,256	27,369	35,005	44,806	144,599
Non tax revenue	3,010	3,184	6,301	4,334	3,766	3,953	4,100	22,454
External grant	4,002	4,565	7,221	6,919	7,839	7,911	8,587	38,477
Domestic revenue and grants	17,918	20,147	29,686	32,509	38,974	46,869	57,493	205,530
Total expenditure	20,520	24,803	36,552	45,066	47,218	49,797	53,461	232,094
Recurrent expenditure	11,977	13,235	16,557	18873	19,584	20,505	22,118	97,637
Defense expenditure	2,452	2,920	3,000	3,000	3,000	3,000	3,000	15,000
Poverty-oriented recurrent expenditures	4,184	5,342	7,327	9,959	10,865	11,888	13,643	53,681
Agriculture & rural development	870	1,158	1,146	836	789	890	1,305	4,965
Irrigation			491	883	816	1,182	1,414	4,785
Education	2,511	2,981	4,103	4,244	4,443	4,797	4,821	22,408
Health	532	696	702	1,405	1,739	2,102	2,501	8,449
HIV/AIDS				20	27	34	45	126
Water & sanitation	139	375	677	731	703	442	454	3,006
Roads	132	132	207	266	438	509	529	1,950
Urban development				1,222	1,512	1,533	2,178	6,445
Others (poverty-oriented)				353	399	398	397	1,547
Interest payments	1,080	1,011	1,335	1,350	1,417	1,530	1,569	7,201
Domestic	576	525	796	745	738	731	724	3,733
External	504	486	539	605	680	800	845	3,468
External grant (food & related)	699	721	744	350	165	78	36	1,372
Others	3,701	3,616	4,151	4,039	3,931	3,825	3,722	19,668
Capital expenditure	8,271	11,343	19,995	25,894	29,260	32,625	35,006	142,779
Central treasury	5,403	8,376	15,050	19,489	22,023	24,555	26,348	107,464
External assistance	1,047	1,513	2,386	3,089	3,491	3,892	4,177	17,035
External loan	1,821	1,454	2,560	3,315	3,746	4,177	4,482	18,280
Poverty-oriented capital expenditures	6,130	9,036	15,597	22,573	25,183	27,214	30,677	121,244
Agriculture & rural development	1,875.6	2,888.8	3,438	2,507	2,366	2,669	3,914	14,894
Irrigation			1,474	2,648	2,447	3,547	4,241	14,355
Education	1,666	1,895.6	2,515	2,601	2,723	2,940	2,955	13,734
Health	346.3	505.4	589	1,150	1,423	1,720	2,046	6,927
HIV/AIDS				200	276	347	455	1,279
Water & sanitation	405	1,109.3	2,032	2,192	2,108	1,326	1,361	9,019
Roads	1,836.4	2,637	3,940	5,051	8,323	9,678	10,058	37,049
Power (rural electrification)			1,610	3,027	2,023	1,426	1,024	9,110
Urban development				2,173	2,688	2,726	3,871	11,458
Others (poverty-oriented)				1,024	806	835	753	3,419
Overall balance including grants	-2,602	-4,655	-6,866	-12,558	-8,244	-2,928	4,032	-26,564
Overall balance excluding grants	-6,603	-9,220	-14,087	-19,271	-18,919	-17,034	-13,919	-83,229
Gap financed	2,602	4,655	6,865	7,124	6,953	1,939	6,409	29,290

External (net)	2,399	2,384	2,083	,2371	2,633	1,042	2,452	10,581
Domestic (net)			4,782	4,753	4,320	897	3,957	18,709
Gap remaining to be financed	2,147	3,492	0.0	5,134	1,291	989	-2,377	5,037
GDP (CMP)	81,754.5	98,397.9	118,269	144,660	173,452	204,644	241,179	
Total poverty-oriented expenditures	10,174	14,004	22,924	32,532	36,049	39,102	44,319	174,926