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Foreword

As Ethiopia progresses towards sustainable economic development within the context of liberalizing and decentralizing economic management, the need for reliable and timely statistical data has become more crucial than ever before. Given the current situation, where the Ethiopian economy is registering an impressive growth rate of over 10% per annum, the government of Ethiopia has recognized the need for a strong National Statistical System (NSS) in managing socio-economic changes taking place in the country.

The government of Ethiopia has committed itself to an agenda of results and, to realize this, almost all public institutions are currently designing, or are in the process of implementing, Business Process Re-engineering (BPR) to bring about fundamental change in their services and pave the way for performance (results) management. Moreover, the government is implementing the poverty reduction strategy i.e. a Plan for Accelerated and Sustainable Development to End Poverty (PASDEP), the Millennium Development Goals (MDGs) and other national, regional and sectoral development plans. All these require clear and systematic measurement, monitoring and evaluation of the achievement of outputs, outcomes and the impact of development policies and plan targets.

In this respect, the government of Ethiopia, recognizing the need for strengthening the National Statistical System (NSS) to improve the monitoring and evaluation of development outcomes and good governance, has allocated a progressively significant budget for various socio-economic and demographic sample surveys and censuses.

As a focal point for all socio-economic statistics and related statistical development

endeavours, it is the government's belief that the Central Statistics Agency (CSA) will continue to play a crucial role in coordinating and delivering the National Statistical System, which will be central to the monitoring and evaluation of the PASDEP and all other development processes and initiatives.

In order to provide a framework for strengthening the National Statistical System and to reinforce the coordinating role of the CSA, the design of this five year National Statistical Development Strategy (NSDS) was decided by the Statistical Council of the country. This National Statistical Strategy is expected to provide a road map for building capacity and work programmes across the whole National Statistical System to meet prioritized data-user needs, and will serve as a framework for harnessing resources to support the said statistical strategic development.

In this respect, it is my sincere hope that, in addition to the government of Ethiopia, development partners will support this NSDS implementation, so that the government's effort of monitoring and evaluation of the development initiatives can be realised.

Finally, I would like to express my sincere appreciation to the World Bank for its financial contribution to this NSDS project. I would also like to thank all the stakeholders who have cooperated and participated in developing the document and, of course, the CSA staff and senior management in playing the leading role in coordinating and finalizing the production of this statistical strategic plan.

Sufian Ahmed

Minister for Ministry of Finance and Economic Development

A Statement by the Director General of the CSA

It falls on the role of the National Statistical System to build publicly accessible and reliable statistics, which effectively provide a relevant and sound management information system to aid informed decision-making at the highest level of government, as well as the individual citizen of the country. Improving the National Statistical System will play a very important role, as not only a basic data input for planning, designing, evaluating and monitoring or reviewing of policies, programmes and strategies, but also as information that is indispensable to the public as a whole for making rational decisions. Therefore, it is necessary to develop steadily an official statistical system that is compatible with socio-economic policies and changes, and provide quality data with internationally comparable standards and in an easy-to-use format. This will, in turn, contribute to efficient and effective governance through the implementation and follow-up of policies, programmes and strategies based on empirical data.

Ethiopia has a long history of planning and conducting socio-economic and demographic sample surveys on a wider scale. In this connection, especially in the last ten years, the government of Ethiopia has allocated a progressively significant budget for implementing these statistical plans. This was operationally possible due to the establishment of a properly functioning statistical system in the country, under the National Integrated Household Survey Programme (NIHSP) by the Central Statistical Agency (CSA). Moreover, in order to address the problems of the national statistical system through a more comprehensive approach, the Medium Term Statistical Programme (MTSP), from 2003/04 – 2007/08, was set up and implemented.

The new National Statistical Development Strategy (NSDS) for the country covers the period 2009/10 – 2013/14. This statistical development strategy differs in content, scope and coverage from the already completed MTSP. The new NSDS provides the country with a strategy for strengthening statistical capacity across the entire National Statistical System. The new NSDS document examines the likely problems in implementing the new statistical development strategy and the outcomes of the past MTSP, and then provides information on the strategic teams and prioritized work programme to be addressed during the five years' implementation period.

Accordingly, a number of system-wide improvements are included in the new strategy, such as the coordination role of the CSA, ethical quality standards and classifications. Improvements in economic establishment surveys and household surveys are also carefully designed. A more comprehensive use of new technologies than ever before will improve the quality and timeliness of surveys, censuses and data from administrative sources that are properly designed to be implemented before the end of the NSDS plan period.

The Business Process Reengineering (BPR) process is due to be implemented in the plan period and the NSDS provides an input into this process by providing a framework, work programme and targets against which progress can be monitored and evaluated.

Development partners are expected to support the implementation of this NSDS by providing well-coordinated technical and financial assistance in a manner that meets the principles of the Paris Declaration. In this respect, I would like to thank the World Bank for providing financial assistance for the design of this NSDS document and for the participation and cooperation by all national and international stakeholders. I wish to express also my appreciation for the commitment made by the senior management

and staff of the CSA and the consultants in preparing, finalizing and making various initiatives in order to release this NSDS document.

Last but not least, on behalf of the CSA, I would like to request all the family of the National Statistical System, i.e. data producers, users, respondents and the public at large, to unite in our good will towards making this statistical strategic development plan a huge success.

Samia Zekaria,
Director General of the Central Statistical Agency

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ABBREVIATIONS

ADLI	Sustainable Development and Poverty Eradication Programme
ART	Antiretroviral Treatment
BPR	Business Process Re-engineering
CATI	Computer aided Telephone Interview
CPI	Consumer Price Index
CSA	Central Statistical Agency (of Ethiopia)
CWIQ	Core Welfare Indicators Questionnaire Survey
DAG	Development Assistance Group
DHS	Demographic Health Survey
DPT3	Immunisation coverage involving three doses of vaccine against Diphtheria Pertussis and Tetanus
DQAF	Data Quality Assessment Framework (IMF)
DTS	Distributive Trade and Services industries
EA	Enumeration Area
EIC	Ethiopian Insurance Corporation
EMIS	Educational Management Information System
GDDS	General Data Dissemination System
GDP	Gross Domestic Product
GIS	Geographic Information Systems
GPEN	Gross Primary Enrolment Ratio
HEWS	Health Extension Workers
HICE	Household Income and Expenditure Consumption Survey
HMIS	Health Management Information System
IMF	International Monetary Fund
MDA	Ministries, Departments and Agencies
MDG	Millennium Development Goals
MPA	Macroeconomic Poverty Assessment
MIS	Management Information System
MoFED	Ministry of Finance and Economic Development

ABBREVIATIONS

MoH	Ministry of Health
MoU	Memorandum of Understanding
MTSS	Medium Term Statistical Strategy
NIHSP	National Integrated Household Survey Programme
NSDS	National Statistical Development Strategy
NSS	National Statistical System
PANE	Poverty Action Network of civil society organisations in Ethiopia
PASDEP	Plan for Accelerated and Sustained Development to End Poverty
PHC	Population and Housing Census
PPA	Participatory Poverty Assessment
PPI	Producer Price Index
RIHS	Rural Integrated Household Survey
SMART	Specific, Measurable, Achievable, Realistic, Timed
SWOT	Strengths, Weaknesses, Opportunities and Threats
TVET	Technical and Vocational Education and Training
UEAP	Universal Electricity Access Programme
UNECA	United Nations Economic Commission for Africa
ULCPs	Ultra Low Cost PC's
UMPC	Ultra-Mobile Portable Computer
VCT	Voluntary Counselling and Testing for HIV/AIDS
WMS	Welfare Monitoring Survey
WMSP	Welfare Monitoring System Programme
WMU	Welfare Monitoring Unit

EXECUTIVE SUMMARY

1. The National Statistical Development Strategy (NSDS) for Ethiopia covers the period 2009/10 to 2013/14. It follows on from the Medium Term Statistical Programme (MTSP) for the Central Statistical Agency (CSA) that ended in 2008, but it differs in scope. The NSDS covers statistical development in the entire statistical system, not just that of the CSA.

2. This NSDS document has been developed through a series of stages. Accordingly, the main objectives of developing this NSDS document were, among others, formulating a framework strategy and work programme for the whole national statistical system of the country for the next five years. Preparations for the NSDS started early in 2008 with the formation of sector working groups which were charged with determining the gaps in national statistics. The gaps identified by sector working groups were extensive and insufficiently prioritised for immediate use. Their work was further refined by asking key statistical user organisations to identify their three priorities for improvement, and to identify three, new, unmet data needs. In addition, each statistical domain was subjected to a light data quality assessment, using a simplified version of the IMF's Data Quality Assessment Framework (DQAF). This assessment was carried out by the sector working groups, and applied to all sectoral data in each of the 24 statistical domains that were grouped for this purpose. These assessments were used to consider data quality problems, and informed discussion at the NSDS Stakeholders' Workshop held in October 2008. The stakeholders' workshop considered the priority data gaps and the quality issues, and made recommendations for the NSDS. The recommendations were of three types: filling urgent data gaps, solving data quality problems and coordinating the National Statistical System (NSS).

3. To gain a better understanding of the likely problems in implementing an NSDS, the outcomes of the MTSP were examined. The major reasons for non-implementation of some of the plan's objectives were said to be capacity constraints and decisions made after the publication of the MTSP not giving statistical activities a sufficiently high priority.

4. The recommendations from the stakeholders' workshop gave rise to six Strategic Themes for the NSDS. These are set out fully in Chapter 8, but are briefly described below.

Strategic Theme 1: Implementation of the Statistics Law

The first theme relates to the coordination of the National Statistical System, and requires the establishment of an NSS coordination unit in the CSA. This unit would manage the development of common standards, classifications and definitions; negotiate service level agreements between each NSS partner and the CSA; agree any support to be given to the partner by the CSA; and manage the data quality assessment process.

The sub-themes described fully in Chapter 8 are:

1.1 The establishment of an NSS methodological and support unit in the CSA for quality assessment and NSS capacity building.

1.2 The development of common standards, classifications & definitions for the NSS for consideration by the Council as legal decrees for official statistics.

1.3 The introduction of memoranda of understanding between the CSA and its NSS partners.

1.4 The coordination of donor relations and statistical initiatives in the NSS.

Strategic Theme 2: Develop data quality procedures

The stakeholders' workshop agreed that data quality standards appropriate to the National Statistical System of the country should be developed. The standards would go beyond methodological considerations and involve the full range of DQAF elements. Quality assessments would be the responsibility of a special NSS coordination unit located at the CSA, reporting directly to one of the Deputy Director Generals. Each statistical data collection should be quality assessed periodically, according to a pre-determined timetable. The results should be made available and an improvement programme agreed. Members of the quality assessment panels may include experts in the subject matter from academia or research establishments, as well as suitably qualified professionals from relevant ministries and agencies, trained in the use of the quality assessment framework. To aid quality improvements and adherence to the statistical standards, ministry/agency statistical units should be established in each NSS partner.

Sub-themes

2.1 Developing a data quality assessment framework for Ethiopia (DQAF-E)

2.2 The development and support of ministry/agency statistical units in NSS partners

2.3 The strengthening of an NSS quality and support unit in the CSA for quality assessment and NSS capacity building

Strategic Theme 3: Enhance advocacy and use of statistics

The NSDS preparatory process highlighted problems in stakeholders' knowledge of the availability of statistics. More publicity for statistical products is required, dissemination calendars should be made available for major NSS products, and statistical releases should be accompanied by press conferences to raise the users' awareness of statistical products. Access and use of data should be enhanced by a common

website for the NSS that provides a one-stop-shop to users, and more training given to users. The training would include hands-on support to use survey databases and software.

Sub-themes

- 3.1 Developing an appropriate shared website for the NSS
- 3.2 Improving statistical launch procedures and press relations
- 3.3 Training for data users including the media
- 3.4 Establishing regular consultations with data users

Strategic Theme 4: Methodological improvements & statistical modernisation

These areas of data priorities for NSS emerged from the stakeholder consultations. Not only were data gaps identified, but also issues emerged relating to the duplication of effort in surveys, and the need to rationalise the survey programme. The gaps which were agreed as priorities were for statistics relating to the environment and commercial farming; non-sedentary populations about whom little data are available; and for a range of price and economic statistics, particularly the construction sector and import and export indices. Improvements in the business register and integrating register data sources are recommended as a first step, as is developing modelling techniques for ‘difficult’ sectors. Improving demographic projections at a lower level and vital registration are a priority for NSS partners who need accurate denominators in order to express statistics obtained from registers and administrative records as ratios or percentages.

The agricultural and population censuses would continue to be conducted on a 10 yearly cycle. Sample survey programmes would continue on a cycle similar to the MTNSP, but the contents of the Household Income, Consumption and Expenditure (HICE), Welfare Monitoring Survey (WMS), Labour Force (LFS) and other surveys would be rationalised and expanded to include more information about the informal sector, cottage industries and small-scale farming of spices and vegetable crops.

Sub-themes

- 4.1 Rationalise the household survey programme and its interface with improving routine systems
- 4.2 Agriculture & environment statistics - improve methodology and expand coverage to commercial farms, non-sedentary populations and to environmental affairs and natural resources
- 4.3 Continue to undertake agricultural censuses to maintain the basis for agricultural sampling and to provide robust agricultural estimates periodically
- 4.4 Welfare measurement - improve methodology, consider a modular approach and expand coverage
- 4.5 Improve business register and integrate data sources

4.6 Develop import / export indices

4.7 Demographic projections, vital events and improved tourism information

Strategic Theme 5: Capacity developments in the NSS

New investments will be required in the statistical system to cope with the increased demand for statistics, and to promote greater use of statistics in policy development and monitoring. Development of analytical skills is required, as too little analysis of the existing statistical data is taking place. This is due, in part, to lack of analytical skills, knowledge of the databases and analytical software.

The supply of trained statistical staff will need to be increased, as staff retention is becoming problematic. ICT staff are particularly difficult to appoint and retain in the government service, and they are essential to upgrading and improving statistics in ministries/agencies statistical units. The problems of staff retention should be researched, and a paper submitted to the Statistical Council recommending a retention package, involving their conditions of service and appointment procedures. In addition, continuous upgrading of skills is important, and training can act as an incentive to staff to remain within the government service. A full training needs analysis of the NSS will be required, and an in-service training programme put in place.

Due to the high turnover of staff, knowledge management is vital. Systems are required to document fully the statistical value chain and to maintain up-to-date metadata. This will ensure continuity even when staff move on from their current positions.

Technological improvements can vastly improve data quality, timeliness and accessibility. A programme of technological improvement is proposed, including computer assisted data capture and improving networking in the NSS. Satellite imagery has proved to be helpful in improving statistical activities.

The physical environment in the CSA is not conducive to modern technological application and efficient management. Additional space and better facilities will be required to provide for improved user access to NSS resources, for in-service training and for improved team working. The current configuration also hampers the installation of technological improvements. New or refurbished buildings will be required for the CSA's operations.

Sub-themes

5.1 Development of analytical skills in the NSS

5.2 Increasing the supply of statisticians and associated ICT staff

5.3 In-service training and knowledge management in the NSS

5.4 Strengthening the statistical associations and a professional body for NSS staff

5.5 Technological requirements

5.6 Improvement of the buildings and physical work environment for statistics

Strategic Theme 6: Relationship of NSDS to the Monitoring and Evaluation of PASDEP and other interventions

The process of defining official statistics is an important consideration requiring constant review. The NSDS is concerned with regular sustainable statistics and ad hoc statistical activities that fall outside the remit of official statistics. While ad hoc surveys are outside the remit of the NSDS, they may still be published by government bodies, and development partners should be alerted about the CSA's role in coordinating statistics and commenting on statistical quality. It is important that all research of a statistical nature is included on the NSS website. The policy needs of statistics should be under regular review to ensure that priority needs are met and changing priorities catered for.

Sub-themes

6.1 Remit of the NSDS for official statistics

6.2 Adequacy of NSDS statistics to populate monitoring systems in the PASDEP

6.3 Process for quality assurance of monitoring and evaluation surveys

System wide improvements

5. A number of system-wide improvements are included in the strategy. These include coordination of all official statistics, the establishment of ethical and quality standards, and the agreement of common classifications and definitions for the NSS. A data quality assessment framework for Ethiopia (DQAF-E) will be developed and agreed with stakeholders. The framework will be fully tested, staffed and funded before being submitted to the Statistical Council for approval as a legally valid instrument.

6. Improvements are needed in the business register, which will form the basis for better data collection in economic statistics. Modelling for difficult industries data collection will be introduced and training in these techniques will be needed for members of the NSS.

7. Household surveys will be better integrated and more carefully designed to include users' needs in the minimum number of surveys. The introduction of new technologies will be tested to improve the quality of fieldwork and to reduce time taken for data capture and editing. Informal sector and detailed labour force information will be collected more regularly and systematically, and be included in the Welfare Monitoring Survey / Household Income and Expenditure Consumption Survey (WMS/HICE) series. A modular survey programme will be considered.

8. The technological improvements including Global Positioning System (GPS), Ultra-Mobile Portable Computer (UMPCs), satellite imagery and Computer Aided Telephone Interview (CATI) techniques are planned to be introduced and strengthened. All the CSA regional offices should be networked before the end of the plan period.

9. Development partners will be requested to support the NSDS in a manner that meets the principles of the Paris Declaration. To promote donor harmonisation and alignment, a donor committee for statistics is recommended, and, to ease negotiations and reporting arrangements, common systems should be agreed.

Plan implementation

10. The Business Process Reengineering process is due to start in the CSA in the near future and the NSDS should provide input into this process. The NSDS provides a work programme and performance targets against which progress can be monitored. These targets should be monitored on a six-monthly basis and an annual report prepared on progress for the Council and for development partners. Performance management will be considered as part of the BPR process.

11. The capacity building needs are set out in the strategy, as is the budget for the implementation.

CHAPTER 1

INTRODUCTION TO THE COUNTRY'S PROFILE

1.1 History

12. Ethiopia is an ancient country with a rich diversity of peoples and cultures and a unique alphabet that has existed for more than 3,000 years. Palaeontological studies identify Ethiopia as one of the cradles of humankind. “Dinknesh” or “Lucy,” one of the earliest and most complete hominoids discovered through archaeological excavations, dates back to 3.5 million years. Ethiopia’s geographical and historical factors have had a great influence on the distribution of its peoples and languages. The country is situated at the cross roads between the Middle East and Africa. Through its long history, Ethiopia has become a melting pot of diverse customs and varied cultures, some of which are extremely ancient. Ethiopia embraces a complex variety of nations, nationalities and peoples, and linguistic groups. Altogether, its peoples speak over 80 different languages, comprising 12 Semitic, 22 Cushitic, 18 Omotic and 18 Nilo-Saharan languages (MOI, 2004).

13. The country has always maintained its independence, even during the colonial era in Africa. Ethiopia is one of the founding members of the United Nations and has been playing an active role in African affairs, specifically in a pioneering role in the formation of the Organization of African Unity (OAU). In fact, the capital city, Addis Ababa, has been a seat for the OAU since its establishment and continues serving as the seat for the African Union (AU) today.

14. Ethiopia was ruled by successive emperors and kings with a feudal system of government until 1974. In 1974, the military took over the reign of rule by force and administered the country until May 1991. Currently, a federal system of government exists and political leaders are elected every five years. The government is made up of two tiers of parliament: the House of Peoples’ Representatives and the House of the Federation. Major changes in the administrative boundaries within the country have been made three times since the mid -1970s, and, at present, Ethiopia is administratively structured into nine regional states, namely, Tigray, Afar, Amhara, Oromia, Somali, Benishangul-Gumuz, Southern Nations, Nationalities and Peoples, Gambela and Harari regional states and two city administrations, that is, Addis Ababa and Dire Dawa Administration Council.

1.2 Geography

15. Ethiopia is situated in the Horn of Africa between 3 and 15 degrees north latitude and 33 and 48 degrees east longitude. It is a country with great geographical diversity: its topographic features range from the highest peak at Ras Dashen, which is 4,550 metres above sea level, down to the Afar Depression at 110 metres below sea level (CSA, 2000). The climatic condition of the country varies with the topography, with temperatures as high as 47 degrees Celsius in the Afar Depression and as low as 10 degrees Celsius in

the highlands. The total area of the country is about 1.1 million square kilometres and Djibouti, Eritrea, Sudan, Kenya, and Somalia border it.

16. A large part of the country consists of high plateaux and mountain ranges, with precipitous edges dissected by rushing streams of tributaries of famous rivers like the Abay (The Blue Nile), Tekeze, Awash, Omo, the Wabe Shebelie and the Baro-Akobo (Ministry of Information 2004). As the country is located within the tropics, its physical conditions and variations in altitude have resulted in great diversity of terrain, climate, soil, flora, and fauna. Ethiopia's major physical features are the result of extensive and spectacular faulting that cracked the old crystalline block of the African continent along the eastern side, producing the Great Rift Valley that stretches from the eastern end of the Mediterranean Basin down to Mozambique in the south eastern part of our continent (MOI, 2004). There are three principal climatic groups in Ethiopia, namely the tropical rainy, dry, and warm temperate climates. In Ethiopia, the mean maximum and minimum temperatures vary spatially and temporally. Generally, the mean maximum temperature is higher from March to May and the mean minimum temperature is lower from November to December, compared to the other months (MOI, 2004). Ethiopia's mean annual distribution of rainfall is influenced by the direction of both westerly and south easterly winds. Thus, in Ethiopia, the general pattern of annual rainfall distribution remains seasonal, varying in amount, space, and time, as the rain moves from the southwest to the northeast of the country (MOI, 2004).

1.3 Macroeconomic Developments - Real sector and prices

17. The Ethiopian economy has registered an average growth rate of 11.8% over the last five years ending 2007/08. While the Plan for Accelerated and Sustained Development to End Poverty (PASDEP) target under the base case was 7% on average over the planning horizon, overall, real GDP growth rate for the first two years of the PASDEP (2005/06 through 2006/07) averaged 11.5%. Although the major source of growth in the economy has been agriculture, this has also been complemented by strong performances in the manufacturing, construction, and service sectors (particularly trade and tourism, banking and insurance, and real estate, as well as education and health). Small and medium enterprise developments have also been enhanced during this period.

18. The construction boom, supported by a significant push in private sector investment expansion and increased public investment in infrastructure (roads development and food security, including the productive safety net programme, telecom, power, and irrigation, etc.), has helped enhance the income-earning capacity of both the rural and urban poor. Improved infrastructure (roads) and rural connectivity (telecom), coupled with the development of cooperatives, have also helped improve farmers' bargaining power in selling their produce at local markets. On-farm and off-farm diversification has also helped farmers augment their income. These new developments have not been fully captured in the outcomes of the analysis work based on the 2004/05 Household Income, Consumption and Expenditure (HICE) and Welfare Monitoring (WMS) surveys data sets, but are expected to emerge in the results of the next survey in the series.

19. However, this impressive growth has been accompanied by inflationary pressure, particularly since 2005/06. Inflation, which was on average in single digits in 2003/04 and 2004/05, accelerated by the end of 2006/07 and averaged 17.8%. Food inflation, which is the main driving force, was 11.8% and 7.7%

in 2003/04 and 2004/05 respectively, and picked up to 18.8% by the end of 2006/07. The source of the increase in average price levels in recent years (particularly since 2005/06) is still under study. The likely potential factors are: demand pressures, caused by higher disposable incomes of small farmers, which improve their purchasing power; the ongoing improvements in crop marketing systems through cooperatives; and the expansion of telephone infrastructure in rural areas, which, in turn, improves information communication. There is also the expansion of microfinance and the productive safety net programme, which have helped reduce desperate sales by small farmers. An improvement in the road network has also increased the producers' price margin for crops. The suspension of in-kind food aid and the introduction of local purchases for emergency aid may also have contributed to the demand pressure on food price inflation. The agro-processing activities taking place (e.g. farmers' sales of wheat, barley, etc. to local processors) as the economy transforms may also be contributing to the overall demand pressure. These are all policy-related issues with direct bearing on data requirements and need to be addressed in the statistical programme of the CSA and other data producers in the country.

20. All these factors may have pushed prices of grains up to their international parity level. In addition, there is a boom in the construction industry, which has increased employment opportunities and which, in turn, has increased income and purchasing power. Other potential factors include: the construction and opening up of universities across almost all regions of the country; the increase in income of farmers as they have become able to sell their produce at market prices; and the increasing trends in the return of the Diaspora, who are now engaged in different socioeconomic investment activities. Finally, the recent increase in the international oil price has also both a direct and an indirect impact on the general price inflation. The above-mentioned factors are still under investigation and various studies and research activities are being conducted towards clearly identifying the major source factors for the recent pressure on prices. These proposals are included in the statistics strategy.

21. It should be noted here that the increase in inflation has not been only a monetary phenomenon, as reflected by the growth of broad money supply and nominal GDP growth rate, as the growth in money supply has not exceeded the growth in nominal GDP.

1.4 Performance in financing poverty-oriented programmes

22. The share of total spending on poverty-targeted sectors (both recurrent and capital from all sources) increased from about 42% of total expenditure in 2002/03 to over 64.1% by the end of 2007/08. Increases have been witnessed in spending across all poverty-oriented sectors during 2006/07, recurrent poverty-targeted spending increasing by 20.1% over 2005/06, and capital by 31.3%. These are largely due to the steady increase in spending on most poverty-oriented sectors, in particular the federal food security programme.

23. As noted earlier, during the Sustainable Development and Poverty Reduction Programme (SDPRP) and now the PASDEP period, government resource allocation and implementation have been geared towards investments on growth enhancing (infrastructure) and pro-poor social sectors. As indicated in Table 1.1 below, from the total public expenditure, spending on poverty-oriented sectors has been increasing over time (from 43% in 2001/02 to 64.1% in 2007/08). In 2007/08, spending on poverty-

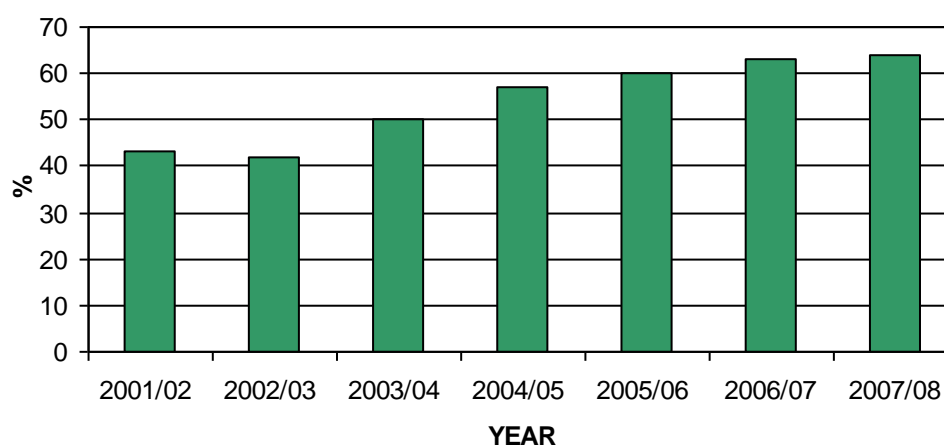
oriented sectors increased by nearly four percentage points compared to the first year of PASDEP implementation (from 60.1% in 2005/06 to 64.1% in 2007/08).

Table 1.1 Trends in pro-poor sector spending in total public spending

Sector	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08
Education	14.2	16.1	20.4	19.7	21.8	23.7	21.3
Health	5.9	4.9	4.3	4.8	4.6	6.6	7.3
Agriculture and food security	9.2	8.1	13.4	16.3	16.8	12.5	11.7
Road	10.7	9.9	9.6	11.3	12.5	14.1	17.7
Water and sanitation	2.8	2.9	2.0	4.5	4.4	6.0	6.1
Total	43	42	50	57	60.1	62.9	64.1

Source: MoFED

Figure 1.1 Trend in poverty-oriented spending to total government expenditure (%)



Source: MoFED.

1.5 Agriculture and food security

24. Owing to its size, the influence of the agriculture sector on the Ethiopian economy has been overwhelming. It influences the path of the economy both in terms of its impact on the overall output and on employment. Being the dominant sector, agriculture contributes about 50% to the overall GDP, generates 90% of export earnings and supplies about 70% of the country's raw material to the secondary activities. The recent growth in the agriculture sector is a response to the Agriculture Development-Led Industrialisation (ADLI) strategy that has been under implementation since 1994, as reflected in the then SDPRP (2002/03–2004/05) and its successor (PASDEP), which spans the five-year period, 2005/06–2009/10.

25. Overall, agriculture value added has been increasing at the rate of 11.7% over the five-year period ending in 2007/08. The agricultural sector has made encouraging progress which has focused on crop production and productivity; diversification of agricultural production; establishment of an agricultural marketing system; research and extension services; supply of agricultural inputs, such as fertiliser and improved seed utilisation; expansion of small and medium-scale irrigation schemes; and better management and utilisation of natural resources. The challenges remaining are to realise the full-scale productivity potential in the country, both in crop and livestock sub-sectors.

26. The main season (*Meher*) production of major crops by private peasant holdings accounted, on average, for over 90% of the total output of major crops and 93% of the cultivated area in any one year. The total area cultivated under major crops during the main (*Meher*) season increased from 10.6 million hectares in 2006/07 to 11.0 million hectares in 2007/08 (nearly a 3.6% increase over 2006/07).

27. With regard to the volume of crop production, the total production of major crops by private peasant holdings during the main season increased from nearly 149 million quintals in 2006/07 to 165 million quintals in 2007/08. This amounts to a 10.8% increase over the production level in 2006/07. Both volume of production and yield per hectare have also shown consistent increase for almost all categories of major crops during 2007/08, while the area cultivated under major crops has only shown a modest increase of about 3.6% in 2007/08. The area cultivated under major crops has been increasing at a smaller rate since 2004/05. Thus, the increase in production has been largely attributed to increases in productivity over the last two years (Table 1.2).

Table 1.2 Area and production of major crops: Percent change over the previous year (%)

Item	Area Cultivated				Production			
	2004/05	2005/06	2006/07	2007/08	2004/05	2005/06	2006/07	2007/08
Cereals	9.3	5.7	4.7	3.2	11.5	15.8	10.7	10.1
Pulses	22.7	-4.2	6.4	10.4	30.1	-5.8	24.1	12.3
Oil Seeds	44.6	-3.5	-7.2	-4.3	68.3	-7.6	2.1	24.2
Total	13.3	3.6	4.0	3.6	15.1	12.3	12.0	10.8

Source: CSA

28. In order to sustain the growth in the agricultural sector, complementary efforts have been continuing in capacity building interventions via agricultural extension packages and research; promotion of agricultural exports; agricultural input utilisation; irrigation development and natural resource conservation.

1.6 Human development

29. Education: the number of students in primary schools has increased to 15 million, taking the gross primary enrolment ratio (GPER) to 96.7% by the end of 2007/08. The net primary enrolment ratio for school-age children (7–14) has increased to 84.4%. Gross first cycle secondary enrolment reached 39.1%

in the same year. The annual intake capacity of TVET centres increased to 226,894 (male 118,625; female 108,625), while the annual intake capacity of higher education has increased to 59,079 (male 41,941 and female 17,138). With these encouraging achievements across the whole level of the education sector, the major challenges have been twofold. The first is in improving quality and achieving regional equity, as access is still low in the regions of Afar and Somali. Dropout rates and repetition rates in primary schools have remained high, and pupil-section and pupil-teacher ratios in secondary schools are still too high. These two problems are the result of limitations in the quality of education. The issue related to equity is the low level of access to primary education in emerging regions such as Afar and Somali Regional States.

30. Health: achievements have been realised in the sector that have increased access to, coverage of and improved health care outcomes. As a result, primary health coverage reached 89% by the end of 2006/07. Coverage for DPT3, measles, and full immunisation of children showed a consistent increase from 51%, 42%, and 30% in 2001/02 to 81%, 72%, and 63% respectively in 2007/08. Owing to the rigorous prevention and control measures undertaken, no malaria epidemic occurred during the fiscal year under consideration, and the proportion of households in malaria-prone areas with access to malaria-treated bed nets increased from 43% in 2005/06 to 100% in 2007/08. The national TB treatment success rate has reached 85%, which is in line with the international standard¹.

31. This has been made possible partly by the increased expansion of the Health Extension Workers' Programme. The total number of health extension workers (HEWs) deployed by the end of 2007/08 has reached 24,571, accounting for nearly 81% of the total national requirement of 30,000. During 2006/07 alone, 3,723 health posts were established.

32. HIV/AIDS: because of the Government's policy interventions and strategies to address the epidemic in a holistic manner, the national single point HIV prevalence estimate stood at 2.1% by the end of 2006/07, from 7.3% in 2000/01. The disaggregated prevalence rate stood at 1.7% for males and 2.6% for females; while the urban and rural prevalence rates stood at 7.7% and 0.9%, respectively, by the end of 2006/07. The number of VCT service-providing centres increased to 1,898,191; the proportion of health facilities (hospitals, health centres, and private clinics) providing an ART service increased to 271; and the number of people living with HIV/AIDS who started ART treatment had increased to 97,299 by 2006/07.

1.7 Infrastructure development

33. Roads: the total length of road network reached 44,359 km by 2007/08. The proportion of road network in good condition and road density per 1,000 km² all increased; at national level, road density increased from 29 km/1,000 km² in 2000/01 to 40.1 km/1,000 km² by the end of 2007/08. About 992 km of new rural roads were added to the network in 2006/07 alone. Taking account of community contributions, 24,353 km of low-level rural roads were constructed in different regions of the country, and the proportion of areas further than 5 km away from all-weather roads had been reduced to 68%. The average time taken to reach all-weather roads had also been reduced to 4.2 hours in 2007/08.

1. Note: these statistics are obtained from routine data systems that will be quality assured during the plan period.

34. Telecom: the number of subscribers to regular fixed telephone lines, mobile phones and internet lines has increased; subscriptions reached 890,741, 1,208,498, and 31,400 respectively by the end of 2006/07. Some of the achievements included:

- population with access to telecommunication centre/services (within 5 km radius) increased from 13% in 2004/05 to 49.3% by the end of 2006/07;
- the country's telecom penetration (tele-density for fixed lines or number of telephone subscribers per 100 inhabitants) increased to 1.20 by the end of 2006/07 from about 0.65 in the early 2000s. The number of rural *kebeles* with basic telecom service reached 7,389. The number of *Woreda*-net, School-net and Agri-net sites reached 513, 175 and 29, respectively;
- The total number of public telephone stations reached 936 by the end of 2006/07.

35. Power: the Universal Electricity Access Programme (UEAP) planned to connect 869 towns and villages located across the country, and 758 of them were connected by the end of 2006/07. This brings the number of towns and villages with access to electricity to 1,620. Accordingly, total electricity coverage of the country has increased to 22%. Some of the activities undertaken include the construction of five main hydroelectric power generation stations with a total capacity of about 3,000 MW; new power transmission lines and substations are being built while old ones are being strengthened. A programme to develop geothermal resources is also being carried out.

1.8 Processes for official policy formulation and implementation monitoring

36. The major statistical needs of a country are usually determined by the policy environment. Previous work carried out as part of the NSDS process identified specific user-needs groups. The major users of data in Ethiopia were asked to indicate how they used statistics in their organisations. The results show that policy monitoring and design are the major use.²

Table 1.3 Purpose of statistics for user organisations in Ethiopia

Use of data by organisation	
Monitor policy implementation	65%
Government policy design	60%
International reporting obligations	53%
Geographical resource allocation	40%
Inform democratic debate	28%
Foreign investment decisions	28%
Business & household decisions	14%

Source: Taken from user-needs survey: CSA 2008.

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2. Of course, this analysis ignores the intermediate use of statistics by CSA and MoFED for statistical frameworks such as national accounts and the balance of payments.

37. The Macroeconomic Fiscal Framework (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 (Nov/Dec), indicating expected resource mobilisation 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.

38. 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 procedures 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 programme actual spending on the PASDEP for the three-year cycle.

39. Expenditure allocation in the MEFF process involves an assessment of new expenditure demands, reallocation 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.

40. As the PASDEP is a continuation of the SDPRP, the monitoring and evaluation (M&E) system is not a new invention. Rather, it is built on the existing Welfare Monitoring System Programme (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 the MoFED) was established to implement the system.

41. Other elements of the SDPRP, and hence the PASDEP M&E system, include the use of specialised 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 (PPA); and the use of routine data generated by sectoral ministries and local governments. These sources are supplemented by information generated by civil society institutions, such as the findings of the citizen's report card recently produced by the Poverty Action Network of civil society organisations in Ethiopia (PANE).

1.9 The monitoring and evaluation system of the PASDEP

42. The roles played by the major actors of the PASDEP M&E system are outlined in the following paragraphs.

43. 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 the Welfare Monitoring Technical Committee (WMTc). The background reports prepared by the WMTc members of the poverty-oriented federal executing bodies serve as a basis for the reports prepared by the MoFED. In addition, sectoral annual implementation, monitoring and evaluation reports serve to generate output and input indicators, while reports prepared by the Central Statistical Agency of Ethiopia (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, the 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.

44. The role of Federal Executive Bodies is to prepare and submit annual progress/implementation assessment reports to the MoFED. The M&E capacity of the federal implementing bodies is variable. The sectoral monitoring systems for education, road, health, water and sanitation (in that order) are relatively more systematised 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 weak and needs to be strengthened. The formulation of sector development programmes 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.

45. The National Statistics Council has been established to link the CSA with the end users of information in government. The CSA will house the databases for the monitoring and evaluation system. This national statistical strategy will establish a national statistical framework with the aim of setting up a structured flow of data and information.

46. The M&E Action Plan is designed to:

- a. monitor input and process indicators across levels of government (e.g. public spending, adoption of reforms) as a measure of implementation;
- b. monitor output indicators (e.g. education, health, infrastructure) at various levels of aggregation (household, *woreda*, national) as a measure of institutional efficiency;
- c. monitor developmental outcomes and final objectives to track overall progress;
- d. relate performance to indicators of reform processes for decentralisation and capacity building to provide information on the effectiveness of the reform process in improving outcomes; and
- e. evaluate the impact to determine the effectiveness of key government policies and programmes in reaching desired objectives.

47. The action plan was presented to donors and civil society at the May 2004 M&E workshop. Subsequently, a memorandum of understanding (MOU) has been signed between the MoFED and donors Development Assistance Group (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.

48. 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 database in order to generate and analyse sectoral socioeconomic time series data. Capacity strengthening of the WMU is ongoing through the hiring of additional staff. A consultative process has been put in place with donors and civil society, within the frameworks of the welfare monitoring structure.

1.10 PASDEP monitoring and evaluation policy matrix

49. In relation to the indicated sectoral socioeconomic 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 programme period.

Table 1.4 Overview of progress to date on key PASDEP/MDGs targets

Sector/Indicator	Base Line (Achievements by end of 2004/05)	2005/06	2006/07	2007/0 8	PASDEP Target (2009/10)
Macro Economy					
GDP growth rate (%)	10.6	11.6	11.4	11.6	Period average of 7.3% per annum
Gross domestic investment as % of GDP	20.5	24.2	25	21.2	26.1
Gross domestic saving as % of GDP	3.7	3.7	5.6	3.2	13.1
Export of goods & services as % of GDP	15.8	13.8	12.8	11.5	19.7
Imports of goods & services as % of GDP	34.3	36.5	32.2	31.2	31.2
Domestic revenue as % of GDP	15.8	14.8	12.8	12.1	18.7
Tax revenue as % of GDP	12.5	10.8	10.2	9.7	17.0
Total expenditure as % of GDP	25.2	22.3	20.8	19.1	27.0
Total poverty-oriented expenditure as % of GDP	14.2	13.4	13.1	12.2	22.3
Capital expenditure as % of GDP	11.8	10.7	10.8	9.8	15.8
Poverty/Welfare					
Total poverty head count (%)	39	36.6	34.6	32.7	29
Food poverty head count (%)	38	35.6	33.5	31.6	28
Agriculture					
Growth of agricultural value added (%)	13.5	10.9	9.4	7.5	Period average of 6.2% per annum
% Share of agriculture & allied activities in GDP	47.4	47.0	46.3	44.6	43.9
Major crops production ('000 quintal)	119,127	133,818	149,404	165,512	382,000 ³ (level by end of 2009/10)
Meat export (1,000 metric tons)	8	8	5.8	-	62 (level by end of 2009/10)
Industry					

3. The plan refers to production of major crops by all producing entities while performance refers to production by private small holder farmers during the main (*Meher*) season.

Growth rate of industry value added (%)	9.4	10.2	11.0	10.4	Period average 11.5% per annum
Share of industry in GDP (%)	13.6	13.0	13.4	13.1	16.5
Human Development					
Education					
Gross primary enrolment (1 to 8) (%)	79.8	91.3	91.6	96.7	100
Primary school completion rate (%)	34.0	41.7	42.9	-	63
Ratio of girls to boys (in primary school)	0.87	0.89	0.93	0.91	0.97
Pupil: text book ratio	2 to 1	1.5 to 1	1.25 to 1	1.25 to 1	1:1
Pupil: classroom ratio	1:69	1:70	1:64	-	1:50
Grade 1 drop-out rate	22.40	20.6	21.8	18.3	6.3
Health					
Potential health service coverage (%)	70	72	89	-	100
Infant mortality rate	95/1,000	77/1,000	-	-	45/1,000
Maternal mortality rate	871/100,000	673/100,000	-	-	600/100,000
CPR (%)	15	36	33	51	80
Adult incidence of HIV	0.68	0.35	0.26	-	0.52
DPT 3 vaccination coverage (%)	70	79	73	81	80
Share of births attended by skilled health personnel (%)	9	16	16	20.3	32
Infrastructure Development					
Roads					
Average time taken to all-weather road (hours)	5.7	5.3	4.5	4.2	3.6
Road density (km/1,000 km ²)	34	35.9	38.6	40.1	54.1
Roads in acceptable condition%	64	69	71	73	84
Power					
Population with access to electricity (%)	16	17	22	27	50
Water Supply					
National access to clean water supply	35.5	47.3	52.5	56.5	80
Rural access to clean water supply	-	41.2	46.4	53.3	-
Urban access to clean water supply	-	78.8	82.0	86.2	92.5
Telecommunications					
Telephone density /mobile	0.58	1.15	1.57	2.6	8.1
Telephone density/fixed lines (per 100)	0.85	0.99	1.16	1.22	3.87

Percent of population with access to telecom centre/services (within 5 km radius) (%)	13	44	49.3	-	100
Number of kebeles with telephone access	3,000	4674	7389	-	15,000
Fixed telephone subscribers	620,000	740,257	890,741	-	3,,230,000
Mobile telephone subscribers	410,000	866,700	1,208,498	-	6,761,000
Internet service subscribers	17,375	25,724	31,400	-	193,100

CHAPTER II

GOVERNANCE OF THE NATIONAL STATISTICAL SYSTEM

2.1 Current statistical law

50. The current law was passed on 20 April 2005, and is cited as the Central Statistics Authority Establishment Proclamation No. 442/2005. This established the CSA as an autonomous federal agency having its own personality. The Authority is responsible to the Minister of Finance and Economic Development. It must have its headquarters in Addis Ababa but may have branch offices elsewhere in the country.

50. The CSA has two objectives. Firstly, to collect, process, analyse and disseminate statistical data; and, secondly, to provide technical guidance and assistance to government agencies and institutions in building administrative systems and registers. This includes building capacity and providing directives for database creation and proper management of administrative records. The CSA is reporting to the Minister of Finance and Economic Development. The Minister recommends the General Manager and Deputy General Managers to the Prime Minister who appoints them. Other employees are appointed according to the civil service regulations applicable to the general public service.

51. The statistical Council members are also appointed by the Minister in consultation with the Director General of the CSA and the Statistical Council must meet at least once a year. The Minister is the chairperson and other members comprise government officials from federal, regional and city administrations.

52. The annual work programme is prepared by the CSA and submitted to the Minister by the Director General. The Statistical Council then approves the programme.

53. The CSA has the authority to ‘prescribe the system for the collection, compilation, classification and flow of statistical data: determine the type and particulars of statistical data to be collected and the period of collection; and monitor the execution of the same.’ (paragraph 7.7 of the law). This gives the CSA authority to develop an NSDS and to develop common standards. The CSA’s powers rely primarily on cooperation between producers in the National Statistical System, but may be enforced by proclamation or regulation.

54. The law does not prescribe the responsibilities of other agencies in the NSS. However, the CSA does have the authority to ‘issue and follow up the implementation of programmes and directives with a view to improving the country’s statistical system and to avoid duplication of efforts in statistical activities’ (paragraph 7.6) and ‘to design and monitor the implementation of statistical recording and reporting systems to be followed by government agencies or institutions or other organisations’. The Council may also ‘issue directives on the improvement of the National Statistical System’.

55. Other government agencies are also obligated to supply information and data to the CSA. This gives a devolved, but rather voluntary, flavour to the wider National Statistical System. The Act in use does not obligate the other statistical agencies to submit their statistics to the CSA for quality endorsement. This strategy will address measures to quality assure official statistics in the country; to ensure that data quality standards are maintained and that competing and contradictory statistical estimates are minimised. This is essential to maintaining trust in official statistics among data users.

2.2 Relevance of the legal framework to the UN Fundamental Principles of Official Statistics

56. The UN Fundamental Principles of Official Statistics are a set of guidelines for the proper governance of a National Statistical System agreed by the UN Statistics Commission. Box 1 shows a list of these principles.

Box 1. Fundamental Principles of Official Statistics

Official statistics provide an indispensable element in the information system of a democratic society, serving the Government, the economy and the public with data about the economic, demographic, social and environmental situation. To this end, official statistics that meet the test of practical utility are to be compiled and made available on an impartial basis by official statistical agencies to honour citizens' entitlement to public information.

To retain trust in official statistics, the statistical agencies need to decide according to strictly professional considerations, including scientific principles and professional ethics, on the methods and procedures for the collection, processing, storage and presentation of statistical data.

To facilitate a correct interpretation of the data, the statistical agencies are to present information according to scientific standards on the sources, methods and procedures of the statistics.

The statistical agencies are entitled to comment on erroneous interpretation and misuse of statistics.

Data for statistical purposes may be drawn from all types of sources, be they statistical surveys or administrative records. Statistical agencies are to choose the source with regard to quality, timeliness, costs and the burden on respondents.

Individual data collected by statistical agencies for statistical compilation, whether they refer to natural or legal persons, are to be strictly confidential and used exclusively for statistical purposes.

The laws, regulations and measures under which the statistical systems operate are to be made public.

Coordination among statistical agencies within countries is essential to achieve consistency and efficiency in the statistical system.

The use by statistical agencies in each country of international concepts, classifications and methods promotes the consistency and efficiency of statistical systems at all official levels.

Bilateral and multilateral cooperation in statistics contributes to the improvement of systems of official statistics in all countries.

57. The first principle requires that statistics be compiled on an impartial basis. Official statistics are currently compiled on an impartial basis. There needs to be a system in place whereby this impartiality is protected in all circumstances, present and future. A system of joint quality reviews is included in this strategy.

58. Currently, access to reports and publications is not constrained. Reports are sold on a cost recovery basis, as are special tabulations. Access to the microdata underlying these reports and tabulations is administered by a data release protocol, Directive No. 1 of 2004, which describes the principles and costs of users accessing unit record information.

59. The second and third principles, which involve using scientific methods, are observed by the CSA, but other producers in the NSS do not routinely supply metadata. The CSA's publications contain methodological chapters and annexes, and the methodologies are developed using scientific principles. This is not always the case for publications of official statistics produced by NSS partners. In future, all published NSS data should have metadata publicly available.

60. Principle 4 relates to the power of the statistical authority to comment on erroneous interpretation of data. The current law does not include any clause that explicitly entitles the CSA to comment on any erroneous or misuse of data. This might be added to any amended statistics law or future proclamation.

61. Principle 5, relating to choice of method, appears unproblematic.

62. Principle 6, relating to confidentiality, is covered by the law, although it does permit identification of individuals if ordered to do so by a court of law. The law applies to all statistical data collections by the CSA. The confidentiality conditions under which the data are transferred to the CSA by other data producers, and the conditions under which it passes data to users need to be spelled out more clearly. This will be covered by the process of agreeing on the contents of the MoU with other data producers and users in the NSS.

63. In addition, and this will provide greater clarity, statistical officers in all authorities need to be bound by the upcoming Statistics Code of Practice to ensure that personal or unit record information is not released to the public or shared between government agencies except for valid statistical purposes.

64. Principle 7, regarding access to the law, is not problematic; the laws relating to data access are found on the CSA website.

65. Principle 8 concerns coordination between statistical producers, which is an activity that must be strengthened and clearly explained in the organisational structure of the CSA, and by formal agreements with other data producers. The means by which this will occur are covered in this strategy.

66. One particularly important point - described in the UN Handbook - is that 'All members (of the statistical system) should be bound to the same rules and safeguards under which individual information can be shared for purposes of statistical integration and generally for effective analytical work'. This would point to a code of conduct for all those engaged in statistical activities in the NSS. The CSA will need a dedicated unit to deal with matters concerning the rest of the NSS. A list of organisations, which currently form part of the de facto National Statistical System, is included in Annex A.

67. Principle 9 suggests that there should be standard concepts, definitions and classifications in place among data producers. The process by which this will occur is described in section 9.1 of this strategy.

68. Principle 10 appears unproblematic in respect of the legal framework; the part of external partners in the implementation of the strategy is described in section 9.5.7 of this strategy.

2.3 UN principles of statistical coordination

70. The UN handbook on statistical organisation asks the question, ‘How does the central statistical agency decide whether the particular cell is, or should be, a bona fide member of the statistical system?’ It makes suggestions on how to provide for this from a legal point of view. Ideally, the following minimum legal provisions would apply:

- all members of a statistical system should have a legal basis for their collection operations;
- all members should have provisions defining their legitimacy, accountability and obligation to hold individual information in trust, as well as the sanctions to be applied if those obligations are not heeded;
- all members should be bound to the same rules and safeguards under which individual information can be shared for purposes of statistical integration and generally for effective analytical work;
- the act should contain provisions acknowledging the need for, and definition of, statistical coordination, as well as guidelines on how it is carried out.

71. The principles set out above will be used in describing the new systems for NSS coordination.

CHAPTER III

CURRENT SITUATION

3.1 Historical background

72. The use of statistical information in Ethiopia can be traced back as far as the 1960s. Demand for statistical information for the purpose of economic management grew after 1957, and, by 1960, a UNECA resolution to which Ethiopia was a signatory meant that statistics became a regular government activity. The Statistics unit was originally located in the Ministry of Commerce, Industry and Tourism. Then, in 1963, regular statistical activities became the mandate of a newly structured and autonomous organisation called the Central Statistical Office (CSO). The CSO was responsible to the Ministry of Planning and Development, and later to the Planning Commission up until 1964. When the CSO was re-established in 1972 by proclamation, number 303/1972, it was still under the authority of the Planning Commission. In 1989, it was restructured and became the Central Statistical Authority (CSA) and was accountable to the Council of Ministers. On October 1996, the CSA became responsible to the Ministry of Economic Development and Cooperation and, since September 2001, to the Ministry of Finance and Economic Development. This benefits the CSA, as the parent ministry gains a clear understanding of statistical needs and problems. The CSA has been well funded by the Government for many years.

73. The 1980s and 1990s were important periods in the development of statistical work in Ethiopia. At this time, the National Integrated Household Survey Programme (NIHSP) was developed, as well as two major population and housing censuses (1984, 1994) being carried out. The first ever Ethiopian Agricultural Sample Enumeration was undertaken in 2001/2 and the CSA completed the third population and housing census in 2007. In recent years, several new surveys have been included in the CSA's programme, as demand for data has increased. Meeting the demand for data at lower geographical levels has often been dealt with by increasing sample sizes. One of the data gaps perceived now is the shortage of indicators at *woreda* level. A key issue for the NSDS is whether this should be achieved by larger and larger samples, or whether other techniques can be employed, for example modelling or greater reliance on administrative records.

74. Not only has the improved management capability of the CSA enabled larger sample surveys to be conducted, but the timeliness of data releases has also improved. One challenge that remains is statistical coordination. The CSA has 'central authority' for the collection, compilation, analysis and dissemination of official statistics, and takes precedence regarding conceptual and definitional matters; however, this needs to be fully implemented.

75. The CSA is responsible for the organisation and implementation of the population census, and a range of economic and social statistics, including compilation, processing and dissemination of the consumer price index, international trade statistics and production statistics. The Ministry of Finance and Economic Development carries out the work related to the compilation of national accounts statistics.

76. The National Bank of Ethiopia is the other agency responsible for some statistical compilation. It compiles annual balance of payments and money and banking statistics, using data mainly from administrative sources e.g. records of the Ministry of Finance and the Customs Department, monetary and

banking institutions, etc. The Budget Department of the Ministry of Finance and Economic Development is responsible for compiling government financial statistics. It also has the authority to collect data on the annual estimates of government revenues, development receipts, loans and grants, annual estimates of government expenditures, including recurrent development and public debt services and budgetary explanatory notes. These data are required for preparing and monitoring the budget in cooperation with line ministries. Revenue and expenditure statistics for the budget sector and financing statistics are prepared on a monthly basis.

77. For compilation of national accounts, the Ministry of Finance and Economic Development obtains information from various sources, including the CSA and the Ministries of Trade and Industry, Commerce, and Agriculture and Rural Development.

3.2 Evaluation of the Medium Term National Statistical Programme for the CSA

78. The first serious attempt to address the National Statistical System through a programme approach was the statistical priority study in 1993/94. This was revitalised in 1997 and, in March 2003, the Medium Term Statistical Programme was launched as the Government's effort to address statistical problems in a more comprehensive and coherent way. This underlines the sustained importance that the Government has attached to statistical capacity in the country. The objectives of the programme were as stated below:

- fulfilling the statistical data requirements essential for planning, policy formulation, monitoring and evaluation, socioeconomic policy analysis and research
- setting up systems and mechanisms to ensure a sustainable flow of statistical data in Ethiopia and, thereby, wherever possible, bridge existing statistical data gaps during the medium term.

79. The basis for the formulation of the Medium Term Programme in each socioeconomic sector was a prior assessment of the existing database, a review of data requirements and identification of gaps through user-producer interactions.

80. The sector-working committees created by the CSA to develop this NSDS have undertaken an evaluation of the results of the Medium Term Programme as part of the preparations for this NSDS. Of the 75 anticipated planned outputs, 33 were fully achieved, 16 partly achieved and 26 not achieved (see Table 3.1). The major reasons for not achieving the objectives are set out in Table 3.2. These show the major problems to be:

- lack of capacity
- lack of a suitable methodology
- problems with source data.

81. The lack of capacity described in the review of the Medium Term Programme applied largely to programme objectives in agricultural statistics, while the lack of appropriate methods applied to both

agriculture and environmental statistics. Problems with source data applied to a wide range of domains including fishing, labour, health, construction and transport.

Table 3.1 Achievement of Medium Term Programme objectives

Domain	No	Partial	Yes	Grand Total
Water	-	2	-	2
Industry, Trade and Tourism	1	-	6	7
Mining and Quarrying	1	3	1	5
Social Sector	2	2	6	10
Transport and Communication	1	1	2	4
Prices, Indices & Household Budget	2	1	4	7
Population	2	1	3	6
Construction	1	2	-	3
Agriculture	6	2	8	16
Prices, Indices & Household Budget	5	2	3	10
Environment and Natural resources	5	-	-	5
Grand Total	26	16	33	75

Table 3.2 Reasons for not achieving programme objectives

Count of MTPM	Achieved		
Why not fully achieved	No	Grand Total	
Administrative problems (legal and structural)	1	-	1
Agriculture by its nature cannot be done on a quarterly basis—the monthly producers' price index of agriculture will be produced, starting from this fiscal year	-	1	1
Capacity problem	2	5	7
Difficulty in developing a workable methodology	7	-	7
It is on the development stage by regional states	-	1	1
It was not a priority	11	3	14
Problem of data quality	-	2	2
Problem of data/source of data	3	4	7
The survey on migration was expected to be included in the census	1	-	1
Grand Total	254	16	41

-
4. The reason was not stated in one case.

82. The lessons learned from the problems with the implementation should be taken forward into the new strategy to ensure that constraints are fully addressed. The low priority given to some objectives has been solved at a strategic level by consultations and priority setting at the October 2008 stakeholders' workshop.

3.3 Statistical resources in the CSA

83. Over the previous plan period, the resources made available to the CSA are set out in Table 3.3. Development partners also contributed to the costs of the population census and other surveys, which are shown in Table 3.3 and Table 3.4 below.

84. The recurrent budget relates only to permanent staff remuneration and the running costs of the CSA, and represents some 15% of the total costs. The remaining costs reflect the costs of data collection and are particularly high in 2006/7 when the population census was conducted.

Table 3.3 cost allocated for the period from 2003/04 - 2007/8 (birr)

Cost	Year 1	Year 2	Year 3	Year 4	Year 5	
Category	2003/04	2004/05	2005/06 **	2006/07 ***	2007/08***	Total
Recurrent Budget						
Salary	13,324,200	13,314,200	15,278,449	17,699,840	24,742,126	84,358,815
Operational	1,578,900	1,327,700	2,379,051	2,995,766	2,487,600	10,769,017
Sub Total	14,903,100	14,641,900	17,657,500	20,695,606	27,229,726	95,127,832
Capital Budget						
Salary	13,522,300	15,560,000	24,004,290	25,144,955	20,362,000	98,593,545
Operational	21,639,200	17,311,200	54,502,450	283,692,845	50,121,183	427,266,878
Sub Total	35,161,500	32,871,200	78,506,740	308,837,800	70,483,183	525,860,423
Grand Total	50,064,600	47,513,100	96,164,240	329,533,406	97,712,909	620,988,255

** 50 field vehicles were purchased in 2005/06 for the population census.

*** The operational cost for the period of 2006/07–2007/08 has increased because of the population census.

Table 3.4 Donor Contribution for the period from 2003/04 - 2007/08 (Eth.birr)

Cost	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Category	2003/04	2004/05	2005/06 **	2006/07	2007/08 ***	

UNFPA						
Operational	341,456	536,300	1,966,200	372,579	969,005	4,185,540
Pop. Census					37,900,000	37,900,000
sub total	341,456	536,300	1,966,200	372,579	38,869,005	42,085,540
DFID						
Operational					42,140,000	42,140,000
sub total					42,140,000	42,140,000
Grand Total	341,456	536,300	1,966,200	372,579	81,009,005	84,225,540

Table 3.5 Contribution by other Governmental & International Organizations for collaborative work

Cost	Year 1	Year 2	Year 3	Year 4	Year 5	
Category	2003/04	2004/05	2005/06 **	2006/07 *	2007/08 ***	Total
HIV Behavioural						
Surveillance Survey						
Operational		1,777,620				1,777,620
Commercialization						
Operational		1,760,461				
Food Security						
Operational				999,080	3,038,487	4,037,567
Investment Climate Survey						
Operational				870,750		870,750
International Comparison						
Programme						
Operational			1,948,562			1,948,562
sub total		3,538,081	3,726,182	1,869,830	3,038,487	8,634,499
Grand Total		3,538,081	3,726,182	1,869,830	3,038,487	8,634,499

Human Resources in the CSA

85. The CSA has a permanent establishment of 3,078 posts, of which 712 (23%) are professional, 1,275 sub-professional (41%), and a further 1,091 (35%) supporting posts. The actual number of staff in post is much smaller, and stands at 1,705 staff (2000 Ethiopian calendar). The largest number of staff is

located in field operations and branch offices (72%). Of the current staff, 15% are professional, a further 47% sub-professional and 37% are support staff. The lower proportion of professional staff, compared to other statistical offices in the world, reflects recruitment difficulties and has to be resolved in the upcoming BPR.

86. The CSA is a comparatively large establishment compared with some reformed agencies in the region (e.g. Tanzania), although staffing is at a similar level to that of Statistics South Africa. Obviously, the modalities of handling fieldwork are different in each case, and these staffing estimates exclude statisticians in other ministries and data-producing agencies.

87. The number of staff seems, at first sight, to be adequate. The rather high number of support and non-professional staff may reflect the realities of data collection in Ethiopia, which may be more reliant on clerical staff than some other countries. The introduction of new technologies may reduce the need for many non-professional staff and make savings in the cost of the recurrent budget after this strategy has been implemented. The strengthening of the NSS coordination will require additional professional staff which will have a direct impact on the number of new surveys that are possible.

3.4 The organisational structure of the CSA

Box 2. Organisation of the CSA

A Director General and three Deputy Director Generals currently head the Central Statistical Agency.

The Deputy Director General for Economic Statistics leads three technical departments, namely:

- Natural Resources and Agricultural Statistics;
- Industry, Trade and Services Statistics; and
- Household Budget, Welfare Monitoring & Price Statistics

The Deputy Director General for Social and Demographic Statistics leads:

- Population and Housing Statistics;
- Vital Statistics; and
- Manpower and Social Statistics.

The Deputy Director General for Operation, Methodology and Data Processing leads:

- The Statistical Methodology
- The field Operations
- The data Processing
- ICT
- Printing Unit

88. In addition to the above-mentioned departments headed by the Deputy Director Generals, 10 support units are directly accountable to the Director General. These are:

- legal services
- public relations and data dissemination department
- the women's affairs department
- the plan and programme department

- the human resource management department
- the finance department
- the audit and inspection department
- technical and material resource administration department
- ethics and anti-corruption service
- civil service reform office

Note that, due to the Director General's heavy work load, the public relations & data dissemination and plan & programme departments are officially delegated to the Economic Statistics Deputy Director General.

89. The agency also has 25 statistical branch offices that implement the work programme. These branch statistical offices are responsible for coordinating the data collection activities in rural and urban sample sites (enumeration areas). Moreover, for the execution of the first ever National Agricultural Sample Census Enumeration, additional branch statistical offices were established which raised the number to 47, at that time. In future, branch offices will undertake more data processing, and will be a source for statistical dissemination in the regions.

90. In past years, the CSA has been able to both increase sample sizes and improve the timeliness of its production. It now needs to develop the capacity to lead the National Statistical System more effectively. This will require an additional work stream related to building statistical capacity in other NSS users to build quality and to promote results management. Consideration should be given not only to the CSA's role in coordinating and quality-assuring national statistics, but also to its role in publishing and disseminating the information. There will also be an additional role in assuring the availability of metadata for various statistics generated from alternative sources.

91. One feature that the Ethiopian NSS lacks is a regular assessment of user needs outside the strategy or programme development period. This point emerged during the data quality assessments. Steps should be taken to incorporate regular user consultation in the period of plan implementation. Not only should user consultations be held at least annually, but also, during the quality assessment process that is to be developed, the involvement of stakeholders should be strengthened.

3.5 Statistical resources - NSS

Table 3.6 Statistical resources in the NSS

Name of Ministry Dept or Agency	Ministry of Finance and Economic Development	Ministry of Federal Affairs	Ministry of Water Resource	Ethiopian Customs Authority	Ministry of Trade and Industry	Oromia Bureau of Finance and Economic	National Bank of Ethiopia	Ministry of Culture and Tourism	Ethiopian Health and Nutrition Research Institute	Ministry of Education	HAPCO	Ministry of Health (PPD)	Higher Education Relevance and Quality Agency	Addis Ababa University	Ethiopian Mapping Agency	Ethiopian Electric and Power Corporation	Federal Police	Ethiopian Road Authority	TOTAL
Designated unit for producing statistics? Y/N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	18
Solely for producing statistics Y/N?	Y	Y	Y	N	N	N		N	N	Y	N		Y	Y	N		Y		12
Post statistics on a ministerial website? Y/N	Y	N	Y	Y	N	N	Y	N	N	Y	Y	Y	N	N	N	N	N	N	8
How many people are in the unit? are working mainly on statistics	12	5	4	5	3	8	26	5	8	2	12	11	1	4	0	33	10	75	224
Number of professional statisticians in unit?	3	0	1	3	2	5	4	3	4	2	2	3	0	1	0	2	5	3	43
Number of professional IT specialists?	0	0	2	2	1	1	0	0	0	0	2	7	0	3	0	0	0	7	25
Number of computers in unit?	12	4	3	5	2	10	26	5	15	3	12	11	1	4	0	2	3	50	168

92. Eighteen ministries and agencies have designated units for producing statistics, employing a total of 224 staff, 48 of whom are professional statisticians. The number of IT specialists is very low, and this must limit the quality of the statistical systems. One unit reported that the high entry requirements for IT staff (qualifications and number of years' service) and the salaries paid made government posts very

unattractive compared with the other sectors. The lack of qualified IT staff is an issue which will require a solution if the NSS is to reach its potential.

3.6 Quality assessment of the National Statistical System

93. The National Statistical System is very complex in Ethiopia. As part of the NSDS preparatory process, the CSA has collected details of all data producers and publications currently in use. There are more than 40 organisations currently participating in the NSS (see Annex A).

94. The main activity of the CSA is conducting, processing and publishing the results of surveys and censuses. These are in the form of both household and enterprise surveys. It also has a major role to play in providing vital statistical infrastructure in the form of sampling frames, maps, geo-informational data, statistical techniques and standards. Other producers in the NSS produce statistics that are a by-product of their mandates, although, in the case of MoFED, it produces national accounts and other statistical analyses as an activity. The CSA is the only statistics producer in the system whose statistics are neutral, in that they do not refer to the CSA's own performance in the delivery of its services or functions.

95. As part of the development of the NSDS, the sector working group teams were asked to carry out a quality assessment of 24 statistical domains. The teams used a light version of the IMF's Data Quality Assessment Framework (DQAF). This is the international standard for data quality assessment, although regional groupings and individual countries apply variants of this system⁵. It should be noted that the teams did not carry out a full DQAF. This normally requires several weeks of work by a specialist team of experts. The quality assessment carried out was an indicative exercise to enable some quality issues to be raised as part of the NSDS process, and to sensitise NSS partners to the full range of quality issues and the need for quality assessment in Ethiopia.

96. Not all statistics in Ethiopia are produced by the CSA. The majority of statistical publications in Ethiopia are the sole responsibility of the CSA. The application of quality standards to all statistical collections is important if users are to trust the data. This is not to say that statistics are untrustworthy in Ethiopia but, as with every quality standard, its application builds trust and confidence among consumers.

97. The results of the light DQAF exercise have been compiled and a mean score derived for each element. These mean scores can be found below in Table 3.5. The table also shows the full range of elements which are involved in statistical quality assessments.

98. While the users' workshop had some serious doubts about the quality assessment process that took place, and called for the preparation of an Ethiopian data quality assessment standard, the results do indicate some common weaknesses in statistics. Looking across the mean scores of all the statistical

5. The tool used was the IMF's Data Quality Assessment Framework (DQAF). This was developed by PARIS21 as Indicators of Statistical Capacity Building that use the scoring method and benchmark descriptions. Other quality frameworks exist which have strong similarities to the DQAF: one is in use by the European Union member states; South Africa has recently developed its own SASQAF.

domains, the serviceability of statistics is the weakest of the five sections: this includes the timeliness of data, user consultation processes, frequency of measurement and the way in which data are integrated into the policy process. The accessibility of data is also rather weak, with just 10 of the 24 domains in the wider NSS claiming that metadata were available, and only half of the domains using internet dissemination for some of its series.

99. The DQAF covers a wide range of issues, which go beyond the methodological considerations of data collections. It includes the legal basis for collection, the resources available for the work, the serviceability and accessibility of the data and the way in which the data are disseminated. Although the CSA routinely publishes its methodologies, the full range of DQAF elements is not reported on.

100. Each element in the DQAF is given a score from 1 to 4 as follows, and scores are based on benchmark descriptions. The meaning of the scoring is as follows:

4 = current practices generally meet or achieve the objectives of DQAF internationally accepted practices without any significant deficiencies;

3 = some deficiencies, but these are not seen as sufficient to raise doubts about the authorities' ability to observe the DQAF practices;

2 = significant departures, and the authorities will have to take significant action to achieve observance;

1 = most DQAF practices are not met.

Table 3.7 Statistical quality assessment by element

Data Quality Scores for Elements of Quality—out of a maximum of 5	
0. Prerequisites of quality	
0.1 Collection of information and preservation of quality guaranteed by law and effective	3.0
0.2 Effective coordination of statistics	2.9
0.3 Staff level and expertise adequacy	2.7
0.4 Buildings, equipment and internet support adequacy	2.6
0.5 Planning, monitoring and evaluation mechanisms implemented	2.8
0.6 Organisational focus on quality	2.7
1. Assurance of integrity	
1.1 Independence of statistical operations	2.8
1.2 Culture of professional and ethical standards	2.7
2. Methodological soundness	
2.1 International/regional standards implemented	2.8
3. Accuracy and reliability	
3.1 Adequacy of source data	2.8
3.2 Response monitoring	2.7
3.3 Validation of administrative data	2.8
3.4 Validation of data sources and of intermediate and final outputs	2.6
4. Serviceability	
4.1 User consultation	2.5
4.2 Timeliness of statistical outputs	2.3
4.3 Periodicity of statistical outputs	2.5
4.4 Integration of statistical outputs into the policy process	2.4
5. Accessibility	
5.1 Effectiveness of dissemination	2.6
5.2 Updated metadata	2.5

CHAPTER IV

STRENGTHS, WEAKNESSES, OPPORTUNITIES AND THREATS (SWOT) OF THE NATIONAL STATISTICAL SYSTEM

4.1 The SWOT and strategy development

101. In the preparation of a strategy, a SWOT process is recommended to give strategic direction. The strengths of the system should be used to make progress, the weaknesses addressed, the opportunities built on and the threats averted. The results of the SWOT analysis have been used in the development of the strategic themes.

102. The National Statistical System in Ethiopia is still in its infancy: this SWOT applies to a system that is not yet established. Therefore, a number of weaknesses are identified in this system, which are addressed by the strategy in the sections that follow.

4.2 Strengths of the National Statistical System

- Well-resourced by Government over a long period of years
- Business process reengineering and public sector reform is improving some statistical activities
- Long tradition of quality data production in the country
- The CSA publications routinely include metadata and sampling errors
- Reasonable number of trained statisticians at the centre of the statistical system at the CSA
- Well-established interagency statistical groups in the planning process, which can be developed in a future NSS
- Well-managed and disciplined organisation at centre of the statistical system at the CSA
- Tradition of medium-term planning in statistics
- Recent population and housing census
- Established programme of surveys with standard question forms
- Results of surveys are delivered in time for policy development and PRSP monitoring
- Well-developed website and testing of ICT in the CSA
- Data archive established in the CSA.

4.3 Weaknesses

- Limited focus on in-depth analysis of results and research
- Not enough publicity about statistical products and services leading to underutilised data
- Too few skills in data analysis across the public service
- Business sampling frames require improvements
- Too many gaps in the source data for national accounts
- Some duplication of material in household surveys
- Large sample sizes can compromise the quality of results by increasing non-sampling errors
- Too many surveys planned were not implemented due to capacity problems
- No established quality-assurance procedures for statistics published by producers other than the CSA
- Insufficient data coordination - contradictory estimates exist from data producers on similar variables
- Lack of timeliness in some of the data production activities
- No single focal point for all national statistics, or single database for statistics produced by all ministries, and weakness in coordinating the National Statistical system
- Many statistics are not presented as time series, leading to problems for users and inconsistent results from year to year
- The institutional arrangements for recruiting and rewarding skilled statistical and ICT staff lead to constant loss of skills in the NSS
- No provision for a regular assessment of user needs.

4.4 Opportunities

- There is a strong political will to improve data and results management in the country.
- The recently appointed Statistics Council has powers to issue directives for the governance of the National Statistical System and to implement the law fully.

- The demand from leaders to build a more coordinated statistical system will provide the impetus for better coordination of all official statistics.
- The Business Process Reengineering process will shortly be implemented in the CSA, and this should build on the NSDS recommendations for statistical coordination and quality improvements in all official statistics.
- The BPR process lends opportunities to improve MIS systems and results management in all data ministries and agencies. This should be coordinated from the point of view of the NSS.
- The focus on results at lower tiers of government may instigate new technologies and strengthen data collection and use in the entire country.
- The strengthening of some MIS systems may reduce the need to introduce larger and larger sample sizes for zonal and *woreda*-level information.
- Paris Declaration gives the Government an opportunity to focus more development partners on priorities for capacity building.
- A number of development partners are poised to support the implementation of the statistical strategy.

4.5 Threats

- Statistics fail to keep up with the needs of the modern economy.
- Relatively low participation and consultation with users failed to address the growing statistical demands.
- Statistics fail to tackle new policy priorities because they mainly concentrate on traditional areas of statistical coverage.
- The development process leads the NSS to lose trained statistical and computer staff to better paying jobs.
- Knowledge in the NSS is not retained and is concentrated in individuals, not institutions.
- Partners press for a more survey-focused programme to respond to their immediate reporting needs (resource diverting and de-skilling).
- Trust must be actively promoted in official statistics by including stakeholders in quality-assurance processes. Loss of trust in the impartiality of official statistics must be guarded against by all statistical agencies.

Box 3. SWOT analysis for the NSS

STRENGTHS Internal attributes that are helpful to achieving the objective	WEAKNESSES Internal attributes that are harmful to achieving the objective
<p>Well-resourced by Government</p> <p>Business process reengineering improving some statistical activities</p> <p>Tradition of quality data production.</p> <p>Tradition of medium-term planning in statistics</p> <p>Well-managed and disciplined organisation at centre of the statistical system</p> <p>Well-developed website and application of ICT in CSA.</p> <p>Data archive exists</p> <p>Recent population census</p> <p>Results delivered for PRSP</p> <p>Trained statisticians in the system.</p> <p>Interagency statistical groups already established for NSS</p>	<p>Limited focus on in-depth analysis and utilisation of results</p> <p>Business sampling frames require improvements</p> <p>Duplication of material in household surveys</p> <p>Large sample sizes compromise the quality of results</p> <p>Too many surveys - plans not fully implemented</p> <p>Quality-assurance procedures for all official statistics need upgrading</p> <p>Lack of timeliness</p> <p>No single website or database for the entire NSS</p> <p>Few time series, hard to use and inconsistent results from year to year</p> <p>Contradictory estimates exist from data producers on similar variables</p>
Opportunities: external conditions that are helpful to achieving the objective	Threats: external conditions that could do damage.
<p>The will from leaders to build a more coordinated statistical system</p> <p>The newly appointed Council and law enables better coordination to start</p> <p>The BPR process will shortly be implemented in CSA and build on the NSDS</p> <p>Focus of results at lower tiers of government strengthens demand</p> <p>MIS strengthening will provide local information sources</p> <p>New technologies can allow the NSS to provide a better service to its users and higher quality data</p> <p>Development partners ready to support</p> <p>Paris Declaration gives focus on strategy</p>	<p>Needs of the modern economy not met</p> <p>Relatively low participation and consultation with users</p> <p>Statistics fail to tackle new policy priorities</p> <p>Inertia and change-averse practices continue</p> <p>Trained statistical and computer staff lost to private, donor and NGO sectors</p> <p>Knowledge is concentrated in individuals not institutions</p> <p>Pressure for more surveys leads to neglect of core areas</p> <p>Steps are not taken to build trust in quality and impartiality of official statistics</p>

CHAPTER V

NEW DATA NEEDS ANALYSIS

5.1 Introduction

103. This analysis assumes that existing surveys, censuses and compilations of data from administrative records will continue. The focus of this section is on newly identified needs. The sector working groups carried out a considerable amount of work to identify data gaps, which were extensive, and range from the need for *woreda*-level information for agricultural and social indicators to widespread demands for social and cultural data. The NSS in Ethiopia has limited capacity and not all data needs can be satisfied. Many of the demands were costly, while others would be very difficult or impractical to collect. The second step in the process was to circulate a questionnaire to organisations to ask them to give their three top priorities for improvement and for new collections. They were asked to name the policies that these were to address and to outline the consequences of not obtaining the required information.

5.2 Prioritising user needs

104. The organisations approached for responses numbered around 90. Responses were obtained from 18 government organisations, including one Regional State Bureau. Some of the organisations submitted more than one questionnaire, including the MoFED and the National Bank. Six responses were obtained from the multilateral development partners, including the UN system, the IMF and the World Bank. Six special-interest organisations responded, including women's organisations, the Confederation of Trade Unions, and organisations representing people with disabilities. Eight research institutions responded and two companies from the private sector. These prioritised needs presented a much more clearly focused demand.

105. The results of this second prioritised exercise were included in a draft strategy and circulated to participants at the October Stakeholders' Workshop. Four syndicate groups, led by a senior manager of the CSA, were asked to discuss these priorities and to make recommendations for their top three priorities. The number chosen was designed to deliver a workable number of new surveys. A dramatic increase in the human resource capacity of the NSS is not anticipated. To coordinate and quality assure the existing surveys and the new demands, the priorities for improvement have to be minimized.

106. The results of the stakeholders' prioritisation exercise are as follows, and it should be noted that one group reported more than three priorities.

5.2.1 Agriculture and environment

- Socio-economic data relating to non-sedentary areas with particular emphasis on agriculture and livestock
- Rural socio-economic survey (including off-farm activities)

- Natural resource-stocks and changes over time to desertification, land degradation and resource depletion
- Environmental statistics: very few available at present and priorities are for agricultural, soil protection and natural resources

5.2.2 Prices, national accounts and welfare monitoring

- Introduction of poverty mapping, small area modelling and a panel survey
- Participatory poverty assessments to explain quantitative data with qualitative information
- Import and export price indices to monitor the impact of external price changes on the domestic economy

5.2.3 Manufacturing, trade and industry

- Mining and quarrying, particularly traditional and modern mining and quarrying
- Energy supply and use by sector
- Construction, particularly road length and employment
- Strengthening the current business register
- Regular survey of small-scale industries
- Regular informal sector survey
- Regular distributive trade survey
- Border trade
- Foreign currency earnings from tourism
- Tourism activities - restaurants, hotels and tours
- ICT survey (household and enterprise)

5.2.4 Social statistics

- Vital events on causes of death and mortality
- Data on ICT use in education
- Information on the population at risk.

5.3 Data quality issues

107. The syndicate groups were asked to reflect on the results of the data quality assessments and make recommendations for quality improvements to statistics in the country. The results that applied to specific domains have been included in the discussion of improvements in Chapter 6. More generic quality improvements agreed are as follows:

- issue directives from the statistical council to improve coordination and to set common standards
- introduce new techniques using modern ICT
- train producers and users in the NSS
- continuous dialogue with users of statistics
- improve advocacy for the use of statistics
- improve timeliness and regularity
- improve effectiveness of dissemination

CHAPTER VI

ACCOMMODATING THE NEW DATA NEEDS INTO THE STATISTICAL DOMAINS

6.1 Population, migration, housing and human settlement statistics

108. This analysis assumes that existing surveys, censuses and compilation of data from administrative records will continue. The focus of this section is on newly identified needs. Population, demographic and migration statistics are collected from the Population Census that is conducted every 10 years, and from the Demographic and Health Survey that is conducted on a five-yearly cycle (2000 and 2005). Information is also obtained from a number of other *ad hoc* surveys, such as Labour Force and Welfare Monitoring Surveys, which also collect demographic data. Data can also be obtained from the Health Management Information System (HMIS), which is currently undergoing a business process reengineering process (BPR) and should be fully operational by the end of this year. There is no established vital registration system in Ethiopia by which continuous vital events can be captured. A pilot has been conducted and a law obligating citizens to register vital events may be passed within the next year. Vital registration is not likely to be a source of reliable statistics for some years to come.

109. The HMIS register system is a potentially useful population register. It records information about people consulting health services from the health posts in *woredas*, up to hospitals serving several zones. Each patient is given a unique number that is used for all health consultation records. In theory, the information could be transferred across the country, but, until this system is networked, this will not be the case. Nevertheless, it forms the basis of a population register that records vital events of the population at small levels of disaggregation. It is not possible to use it yet to estimate internal migration (as is done in the UK) but it has the potential to do this.

110. The priorities for this domain include better statistics about vital events, and better demographic projections to underpin the population denominators used for key MDG goals, such as enrolment rates, mortality rates and so on. Currently, the 2007 Population Census is awaiting release, pending approval by Parliament. There will be a stream of work required as soon as possible to derive new population projections for the next 20 years.

111. The Demographic and Health Surveys are planned to fill the gap in the inter-censal years, and to provide health indicators on a five-yearly schedule. It is anticipated that two work streams will be required. The first is the development of the population projections for the period 2008 to 2027. This should be revised when, and if, new assumptions are derived from DHS surveys in the years between the censuses. The missing component is migration, particularly internal migration. Where there is rapid growth of the labour force and land pressure, there is a tendency for population movement to accelerate, particularly for young adults. The most complete source of migration data is found in the Labour Force Survey of 2005.

Table 6.1 Priority data needs: Population

	Origin of need	Nature of need
1	Workshop	Data on vital events with special emphasis on mortality and cause of death
2	Core need	Revised demographic projections
3	Regular activity	Demographic and Health Survey 2010/2011
4	Regular activity	Internal migration data - Labour Force Survey 2013/2014
5	Long-term development	Vital registration system. Continue the development of this system in the regions

112. The priority data needs were for information about fertility patterns, causes of death, and for current population projections at *woreda* level, in order to provide data for planning services. There was also a call for accurate population data to provide the denominators needed for those indicators, which are expressed at a population ratio, for example enrolment rates.

113. Currently, information on vital events is provided by analysis of census data, information from the DHS survey and from the HMIS. A pilot study of improving vital registration systems was carried out under the previous MTNSP. It is unlikely that a thorough coverage of vital events can be obtained from routine administrative registration of vital events, as registration of deaths and births is incomplete and may be limited to hospitals and clinics. While the registration of such events will continue, as it is a basic civil right, it is unlikely that it will provide good quality statistics for some years to come. The pilot should be reviewed in 2012/13 and a decision should be made about its future as a source of potential official statistics, particularly the quality of data derived from HMIS. If, as is likely, it is found to be a poor source, then the adequacy of alternative sources should be reviewed as potential sources.

114. The next population census will be due in 2017; it is not anticipated that any preparatory work will be carried out over the NSDS period. An inter-censal demographic survey is planned in 2012/13, the requirement for which should be reviewed in the light of the decision to run the DHS and LFS in the plan period, and of the improvements expected to the HMIS.

6.2 Education statistics

115. Education statistics are derived from both surveys and from routine information systems. Ethiopia has an Educational Management Information System (EMIS), the most recent EMIS data available being for 2006/7. The system is decentralised with data collection carried out in each educational establishment from kindergarten to tertiary education, and including TVET establishments. The questionnaires are agreed with the regions each year and then translated into five local languages.

116. The EMIS data is collected in the Annual School Census that is sent out in September of each year. The directors of each educational establishment complete the census forms and four copies are returned by 30 December to the *woreda* office. Each *woreda* has a planning unit that processes the returned forms, and checks them for errors and completeness. The Somali region is problematic and mobile schools

are being proposed. The forms are sent to the Regional Educational Bureaux where the data are entered and then passed to the Federal Ministry of Education EMIS section.

117. The EMIS estimates suffer from very outdated population denominators that cause a number of problems when statistics are presented as ratios, such as gross and net enrolment rates. The population projections are now 14 years out of date and based on the 1994 Population Census. One other problem is that the Ethiopian school structure does not fit in with that of the UNESCO system. However, the EMIS system is able to use the results from individual years to present its results in an internationally compliant form.

- Ethiopia Primary: grades 1–8
- UNESCO: grades 1–6
- Ethiopia Junior Secondary: grades 9–10
- UNESCO: grades 7–10

118. The results derived from surveys are published in the CSA survey reports, while the EMIS is published in the Yearly Statistical Abstract of the Ministry of Education. The results are also published at regional level. The data could be published at the zone and *woreda* level if the structure of compilation were amended and the quality assurance processes put in place. This might be a future development for EMIS in the drive for more decentralised statistics, and could also reveal any unintentional errors in the data. EMIS is much more suited than any survey to the publication of small area statistics as there is no sampling error, only non-sampling error.

119. The EMIS system has been supported under a UNESCO Institute of Statistics programme, and a new support programme (GEQIP), to strengthen the EMIS system, is about to start. There are currently difficulties in amending the current access-based database programmes.

120. Education statistics were analysed by the sectoral committee that assessed them to be of good quality, and the needs analysis showed some data gaps in the information. Several users asked for better information about higher education and tertiary education, particularly for information about adult literacy classes. Other users asked for information about education for special needs and disabled students. The priority need that emerged from the workshop was for better information about the use of ICT in educational establishments. The consequence of this data gap is that the returns on educational investments in ICT cannot be monitored. This gap could be filled by extending the questionnaires used in the Annual School Survey, but the software and questionnaires will require amendment to enable this new information to be collected.

121. Education statistics are also derived from surveys, notably from the Welfare Monitoring Survey and the Labour Force Surveys. Potentially there are two or more competing sources of official statistics relating to enrolment. The work programme should include quality reviews of the data sources, while publications should explain the differences between the estimates to users. This should be an early stream for quality review, and the call from users to present the results from the domains in time series should be attended to as part of this work.

Table 6.2 Priority data needs: Education

	Origin	Nature of need
1	Workshop	ICT use in schools - to be added to annual schools survey
2	Core need	Quality review and reconciliation between survey and EMIS estimates
3	Regular activity	Annual publications from the EMIS system
4	Regular activity	Education data from the WMS survey
5	Bilateral discussion	Need for advocacy work on statistics in the education curriculum

6.3 Health statistics

122. Data are also collected by the CSA from the five-yearly Demographic and Health Survey, and from the Welfare Monitoring Surveys of 1996, 1998, 2000 and 2004. A number of Health and Nutrition Surveys have been carried out in recent years. The proposals to extend the sample size of the DHS, in order to provide information at the zonal and *woreda* levels, may not be required, as the HMIS will be able to provide data, not only at the *woreda* level but also at the household level, as, built into the HMIS, is the Community Information System, involving the Family Folder. The DHS at regional level should be sufficient to provide an independent check on the HMIS data. The advantage of the DHS is that it provides data relating to those who do not use health services, as well as those who do. HMIS can only ever provide information about health service users.

123. The latest data from the old routine health information system are from the year 2007, and results are available at zonal level. Health statistics are also derived from surveys, notably the Demographic and Health Survey (DHS), although the Welfare Monitoring Survey (WMS) also includes information on health services and respondents' satisfaction with them, and anthropometry, child immunisation and childcare. There may be scope for rationalising the data that are collected from the DHS and WMS, particularly as they are currently planned to run in consecutive years. The DHS is probably best suited to collecting good quality demographic and health data, although the sample size is limited. If statistics are needed at the *woreda* level, then these can best be provided from the HMIS system. HIMS has completed its BPR process and is currently being scaled up throughout the country. Continued checking and quality assurance are also being implemented. This will form the basis for better statistics and collaboration with the CSA.

124. In contrast to the HMIS, the DHS can provide information about those who use and, very importantly, those who do not use the health services, and supplement data from health service users captured by the HMIS. The HMIS system has recently undergone a complete overhaul to create a nationally integrated system. It addressed a system in which 'most existing national standards for data collection have not been established by the FMOH HMIS Unit, but by vertical technical programs, that are often driven by donor priorities'⁶. The BPR process has standardized data collection instruments,

definitions and classification for health statistics in Ethiopia. However, for effective triangulation, it is important that all stakeholders share common data definition and a data dictionary (National Health Data Dictionary).

125. The HMIS system has agreed a disease classification for Ethiopia that is based on the priority diseases for epidemic control and on the most common diseases found in Ethiopia. The lists associated with the diseases are sequential and are intended to provide ease of identification. They are specific to Ethiopia and are not the codes used for International Classification of Diseases or the Global Burden of Disease, although a conversion table is available. The definitions and classifications related to health should form the basis of the health section of the common standards work to be led by the CSA in developing common national statistical standards.

126. The same Strategic Plan for the Ethiopian Health Sector addresses relationships with the CSA. It states that the 'CSA conducts the Ethiopia Demographic and Health Survey (EDHS) every 5 years. It also conducts a Welfare Monitoring Survey (WMS) every 2-3 years. Both of these surveys are important sources of health information. Sometimes the results of these surveys appear to differ from the HMIS (and from each other). Other organizations also conduct surveys that collect health related information. For example, information from other sectors such as education, agriculture, and water and sanitation is also important in making health sector decisions. In order to triangulate among these different information sources, common data definitions and understanding on how to interpret the results are essential. The Health Metrics Network (HMN), an international initiative to harmonize and strengthen sources of health information, is already supporting GoE and FMOH efforts at harmonization.' The FMOH is also working on the establishment of a health data warehouse for routine and survey data that are geo-referenced and archived for easy access, use and analysis.

127. The HMIS clearly needs to participate in this harmonisation process. There needs to be better communication and collaboration between the CSA and those in the HMIS system to define the needs clearly, taking into account information that will shortly be available, and to discuss and explain the different estimates arising.

128. A joint review of health data with the CSA and MoH is included in the work programme. The standardization and definition of data, and the creation of a data dictionary should be carried out before the next DHS. This will enable the HMIS system to be fully operational and for a new round of DHS data to be in place.

129. The priority health data need arising from the workshop was that on vital events, with special emphasis on mortality and causes of death. One area that needs to be emphasized is the strengthening of capacity for collecting and storage of vital statistics. Vital statistics is an aspect of the MDG indicators. To strengthen this aspect, the CSA needs to work with all the regions, *woredas*, *kebeles* and health facilities at all levels, to emphasize the need for collecting and documenting vital events. The roles and responsibilities of each should be clearly spelt out and implementation enforced. The necessary legislative issues should also be carried out. Currently, data are available on deaths in hospitals and health centres, but not otherwise. However, the HMIS system is expected to elaborate on this. Other data users required statistics about disease control programmes such as TB and treated bed nets, but this did not emerge as a priority at the workshop. This information is collected in the DHS, which is repeated at five-yearly intervals.

The health sector statistics should give due emphasis to the following issues:

1. The necessity to define data needs which will be applicable to routine and periodic information, including HMIS, DHS, WMS, ANC, BSS, etc;
2. As stated above, health data collected by the CSA (through DHS and WMS) have several advantages. However, there is a need to expand the indicators and data collection tools to include service utilization (per capita visit and admission) by level of care, as well as household expenditure on health care disaggregated by type of expenditure (pharmaceuticals, consultation or admission) and type of provider (public or private). These data are helpful for the current reform the Federal MOH is undertaking in areas that include resource mobilization;
3. Agreement on Data Dictionary/Indicators and development of an agreed national health data dictionary;
4. Inter-operability of systems between the MOH (data warehouse) and other stakeholders, including the CSA, Education, Water;
5. Use of GIS, geo-referenced data, including the development of unique identifiers for health related data;
6. The necessity for consistent and regular data triangulation and ensuing use;
7. Facilitating linkage of health community information system with vital statistics;
8. Consistent and regular access to data (vital statistics, survey and surveillance, geographic data, etc).
9. To help in the above activities, the need to assign focal personnel who work with MOH in the area of NHA, and liaise and assist the development of health related data collection tools for the DHS and WmS.

Table 6.3 Priority data needs: Health

	Origin	Nature of need
1	Workshop	Better data on morbidity and causes of death - at <i>woreda</i> level
2	Core need	Coordination of FMOH (HMIS, Surveys and Surveillances), and CSA data definition, classification and data needs, embracing data dictionary and inter-operable data warehouse.
3	Core need	HMIS improvements completed
4	Regular activity	Welfare Monitoring Survey – review questioning
5	Regular activity	Demographic and Health Survey - 5-yearly

6.4 Media, sport and culture

130. The statistics for this sector are largely generated from administrative systems from the Ministries of Youth and Sport, and Women's Affairs and from the Ministry of Information. Some information may also be obtained from the CSA's household survey programme. The most recent information for most series is 2006/7.

131. Some data gaps were identified in this area: these included better information about membership of youth associations, and lists of community, sports and social associations. However, none arose as top priority at the stakeholder workshop.

132. A request was made for information about households with access to radios, televisions and computers. However, with the exception of the latter, this information is available from the WMS, PHC and the DHS.

133. Plans to improve particular series or collections have not been included in the NSDS, beyond the general quality improvements in the coordination of official statistics described in Chapter 9.

6.5 Law and order

134. The Ministry of Justice and the Federal Police publish annual crime and traffic statistics. These are obtained from administrative records and the last statistics relating to traffic accidents are dated 2006/07, and those for crime, 2005/06. The statistics relating to the outcomes of cases relate to 2004/05. The frequency of release ranges from two to five years. The series available include:

- types of traffic accidents
- number of crimes and persons recorded as offenders
- number of prisoners
- number of criminal cases lodged in all courts
- number of prisoners released
- number of staff in judicial services.

135. Greater frequency of crime statistics was requested from some users, as was data about crimes against vulnerable groups and crimes committed by youths. Statistics relating to the efficiency of courts and the time taken to bring accused people to court are needed. Studies about the performance of publicly owned enterprises were also requested, in order to identify possible corruption in public bodies, but this topic appears to be more suitable for a special study rather than for regular collections of official statistics.

136. No priority data gaps or improvements were agreed at the stakeholders' workshop; therefore, no specific plans to improve statistics in this domain have been included in the NSDS.

137. The statistics on traffic accidents and crime should be covered by quality assurance processes over the plan period and improvements should be made following the assessment.

6.6 Disability and vulnerable groups

138. Comprehensive data on people with disabilities and vulnerable groups are in very short supply: the latest available data are from the 1994 Population Census. The 2007 Population Census does contain questions relating to disability; however, the results have not yet been released which explains the extensive data gap identified by users.

139. Information is needed about the distribution of people with disabilities, the aged and youth groups. The user needs analysis also highlighted information about the needs of refugee communities. The priority data gap identified at the stakeholders' workshop for inclusion in the NSDS was information on the population at risk.

Table 6.4 Priority data needs: Vulnerable groups

	Origin	Nature of need
1	Workshop	Data on the population considered to be 'at risk' in order to monitor social protection activities
2	Activity related to workshop	Identification of at risk population from WMS and HICE surveys
3	Regular activity	Improved data collection instruments and analysis for groups identified to be at risk

140. The priority data needs identified at the workshop could be met by further analysis of the Household Income and Consumption Expenditure Survey (HICE) and WMS data to identify vulnerable groups in a systematic way. Once the characteristics of these vulnerable groups are defined, then improvements in future data collection instruments can be identified and suitable questions included in the HICE and WMS. It may also be possible, once the poverty mapping exercise is completed, to estimate the incidence of vulnerable groups at lower administrative areas.

6.7 Labour statistics

141. Labour statistics are derived from periodic household surveys that provide estimates of the employment status and activities of the entire population, from the Population and Housing Census and from administrative sources from the Labour Department of the Ministry of Labour and Social Affairs. There are no enterprise-based surveys dealing specifically with labour issues.

142. The previous Medium Term Statistical Programme planned a five-yearly Labour Force Survey, together with a biannual survey of the Employed and Unemployed in urban areas only. The surveys that took place were:

- 2001 Child Labour Survey
- 2004 Urban Employment and Unemployment Survey
- 2005 National Labour Force Survey
- 2006 Urban Employment and Unemployment Survey

143. The sample size for the full national Labour Force Survey was almost 55,000 households, while that of the urban survey was approximately 15,000 households. The user needs analysis called for more regular and standardised collections of labour statistics. The very large sample size of the labour force surveys requires a substantial resource allocation from the CSA for their conduct. The urban survey was originally intended to be biannual, but was postponed during the census period. The level of changes in the labour force over a six-month period was found to be too small to require biannual monitoring. Given the very extensive survey programme planned for the CSA, it may be necessary to review the survey schedule. During the previous programme implementation, many of the proposed labour surveys were dropped due to competing priorities.

144. Labour statistics are expected to be a higher priority in this plan period as ‘creating employment opportunities’ is the eighth pillar of the PASDEP. The particular challenge of meeting the employment needs of the 1.2 million people, who are anticipated to join the labour force each year, will require careful monitoring. A more consistent method of monitoring employment matters is required.

145. The user needs from the labour statistics were extensive and reflect the needs of a very wide range of users, from government agencies to the NGO sector and development partners. More detailed data about the employment status of special groups (including women, youths, people with disabilities and other vulnerable groups) were demanded. More disaggregated occupational and industry groups were called for. One improvement that data users stress is the need to combine the specialist labour force surveys (child and general) rather than to survey the labour characteristics of specific groups separately. Users asked that labour issues be included in other welfare surveys to improve the frequency and comparability of the results. There is also a demand for the analysis of the labour force results against welfare and poverty indicators, in order to monitor the impact of changes in the labour force on poverty and welfare and vice versa.

146. More information on earnings was also a high priority, particularly for the self-employed and from agriculturalists who are engaged in other forms of work in addition to farming. Skills shortage analysis was a priority for some users, while wages indices and productivity measures were priorities for others, including the IMF.

147. In addition, much more information is required from the national accounts on informal sector activities, on an annual basis. It should not be necessary to provide regional data on an annual basis. A five-yearly full national Labour Force and Informal Sector Survey, and an annual ‘light’ informal sector

survey could meet the requirements for labour statistics and the informal sector. Both these surveys should focus on the role of the informal sector and secondary jobs, in addition to the main usual and current occupations. Evidence from the East Africa region suggests that the informal sector is very dynamic with many peasant farming households also engaged in informal sector activities, often involving the processing or semi-processing of agricultural produce. Those wholly engaged in the informal sector tend to have a number of businesses, while, even those in the formal sector, have informal activities as a subsidiary occupation. The informal sector changes rapidly and can be highly seasonal.

148. The recommendation is for i) a national Labour Force and Informal Sector Survey conducted on a five-yearly cycle, and ii) an annual national, not exclusively urban, household-based employment and informal sector survey that provides national data on changes in informal sector activities and earnings. Technical assistance will be required to develop a new sample and instrument. There are considerable economies of scale in combining the field activities in order to obtain a full picture of household-based enterprises. It should also be remembered that, by definition, a different survey approach is required for household enterprises, as few maintain records or business accounts. The data collection method is often more similar to a household budget survey with diaries than to an enterprise survey where data can be extracted from formal accounts.

149. The administrative sources provide data on registered job seekers at national level. These data suffer from lack of comprehensiveness, as few of the unemployed are motivated or able to register. However, it is available at the local level and can provide annual estimates on fluctuations in unemployment.

Table 6.5 Priority data needs: Labour and employment

	Origin	Nature of need
1	User needs study/PASDEP	Youth unemployment and unemployment for population aged 10+
2	User needs study	Informal sector employment - non-farming peasant household activities
3	User needs study	Professional and skilled manpower supply
4	User needs study	Wage index, productivity, earnings and incomes
5	Regular activity	National labour force information -labour force surveys

6.8 Poverty and welfare statistics

150. Poverty and welfare statistics are currently provided by two linked surveys: the Household Income and Expenditure Survey (HICE) and the Welfare Monitoring Survey (WMS). The HICE not only provides money metric poverty data, but also provides the weights for the Consumer Price Index (CPI) and the household consumption estimates used to compile GDP estimates.

151. These linked surveys have been conducted by the CSA every five years, the latest publications being WMS 2004 and HICE 2004/05 (the latter issued in 2007 due to the length of time required for data cleaning). This is a domain where the CSA has plans for methodological improvement for the next round

of surveys. The problems that the CSA has outlined include reluctance by households to participate in the multiple visits required to collect the income and expenditure data. The households may experience up to 16 visits in both survey rounds. The results can be of poor quality, and the data cleaning and data editing and merging operations complex. This delays the release of the results and reduces their quality.

152. There are plans to improve the surveys and to increase the amount of information available at *woreda* level. A study will take place to propose improvements in the methodology, using the HICE survey of 2004/05 estimates of average consumption, expenditure per capita, poverty level, poverty gap and inequality. Carefully constructed survey field experiments will be required to compare the household expenditure estimates obtained through different survey design options. Changing the methodology will affect the comparability of the results of future surveys with those of the past and disrupt time series. Changes should be introduced with care and include experimental methods or control groups to allow the historical estimates to be adjusted for comparative purposes.

153. The results of the needs surveys show that the calls for the review of the methodologies of these surveys are extensive. Some statistical users called for a more regular measurement of poverty in the country, while others suggested a panel survey to monitor poverty changes more accurately. The panel survey was a top priority for implementation at the stakeholders' workshop.

154. There is some duplication of content in the WMS with questioning in the DHS. Some of this must be retained to enable the cross analysis of health and demographic variables with poverty. However, the anthropometry, fertility and contraceptive-use sections could be dropped or trimmed to provide space for increasing the amount of employment and earnings information collected, particularly about those participating in the informal economy. The thrust of the PASDEP is to focus on growth, particularly the commercialisation of agriculture, enhancing private sector development and employment. The survey content should focus on the relationship between increased business activity and agricultural transformations to improvements in welfare and poverty reduction of the population.

155. The stakeholders' workshop recommended a panel survey approach in future. A subset of the previous sample will be selected for re-interview. Due to the complexities of collecting and processing, a small sample size is recommended to yield results on real changes in poverty at the national level. The remainder of the sample should be conducted as a cross-sectional sample.

156. New computer technology, using UMPCs with inbuilt checks and the ability to call up previous data rounds, may improve field collection and reduce the amount of time necessary to edit, clean and impute observations. This is being trialled in Tanzania now and will be investigated by the CSA.

157. A significant change in demand is the call for results at the *woreda* level. It is unlikely to be feasible to collect money metric poverty data at this level. The sample size and the size of the management of the operation would be too extensive to yield results of useable quality. Capturing welfare indicators at lower geographical levels may be more feasible. Poverty can be modelled at lower geographical levels using a recent census and HICE/WMS combined survey. With a recent census and an upcoming survey programme, poverty mapping may be possible and yield good local level data.

158. Some users called for an asset-based poverty index. The poverty mapping exercise will include modelling exercises that link poverty incidence to the ownership of assets, housing conditions and other

variables. Once key poverty proxies are determined, it may then be possible to use larger samples that use assets and other living standard variables to predict poverty incidence at lower geographical levels. At that time, larger sample sizes for the WMS or a CWIQ survey could be introduced.

159. Other possibilities for delivering better data at the *woreda* level include better capture and use of routine data, such as school enrolment data, information on the delivery of health services and other data collected in relation to service delivery at local level.

160. A Participatory Poverty Assessment (PPA) has been called for; this should be conducted on the same schedule as the WMS. It will provide qualitative information to complement the quantitative findings from the HICE/WMS and should be developed in harmony with the revised instruments for the sample surveys.

161. It will be difficult to deliver on all these needs simultaneously and an early study of the options, their costs and benefits will need to be studied and discussed with major stakeholders. Several considerations may be necessary:

- size of the sample versus the complexity of data which can be collected and the quality outcomes: as sample sizes increase, then non-sampling error rises;
- the changes necessary to improve the quality of the data will impact on the comparability of poverty series over time and this may impact adversely on poverty monitoring activities;
- the development of poverty proxies or asset indices that will enable poverty estimates to be made at lower levels with simpler survey instruments.

Table 6.6 Priority data needs: Poverty and welfare statistics

	Origin	Nature of need
1	Stakeholders' workshop	Panel survey
2	PASDEP/user-needs survey	Agricultural modernisation
3	User-needs study	Asset-based poverty index
4	User-needs study	<i>Woreda</i> -level information
5	User-needs study	Improvements in data collection
6	Planned activity	Poverty mapping and small area modelling
7	Stakeholders' workshop	Participatory Poverty Assessment

6.9 Food security and market prices

162. Food security is an important issue in an agricultural country like Ethiopia. It has important policy implications and data needs. In addition, the market price collection of agricultural commodities is important in a number of statistical domains, including developing constant prices for deflating poverty estimates and for making agricultural policy decisions, both for the Government and for the private sector.

It is also very important for the individual farmer who must make decisions about which crop to grow, which animals to raise and when to sell commodities.

163. The National Integrated Household Survey Programme (NIHSP) has been conducted by the CSA since 1980/81. A monthly rural agricultural producers' prices survey is conducted on a monthly basis in selected farmers' associations. Prices at zone level have been provided since September 1997. The sample was reduced in September 1998 from 1,420 enumeration areas to 446. Ninety-nine selected products are covered.

164. No specific priorities addressed food security with the exception of needs expressed by the World Food Programme and the Ethiopian Research Institute.

6.10 Agricultural statistics

165. The CSA publishes Crop Production Forecasts for main and short rainy seasons by area, production and yield; livestock statistics; farm management practices and land utilisation. The first agricultural census of Ethiopia was carried out in 2001/02 by the CSA, but annual agricultural surveys have been carried out since 1980. This was an important milestone in gaining a better understanding of the agricultural sector, which accounts for some 50% of the country's GDP and 90% of export earnings.

166. The current agricultural crop surveys conducted by the CSA include:

- crop forecasting - this includes area, production and yield of major temporary crops from peasant holdings (*Meher* season); weather conditions; availability of agricultural inputs; pest and animal damage;
- area and production of crops in the *Meher* and *Belg* seasons - area and production of major crops and yield of major temporary crops from peasant holdings for both seasons. This is for national, regional and zonal areas;
- farm management practices - area under agricultural inputs; area under irrigation; amount and cost of inputs by type; number of farmers using particular management practices;
- land utilisation—data on area under different land uses (arable, fallow, grazing, woodland, etc.) for private peasant holdings for the *Meher* season; land utilisation.

167. The CSA's annual livestock reports cover only private peasant holdings in the sedentary areas of the country, and provide data on the number of livestock, and poultry; number of beehives; honey production per year and numbers of agricultural holdings reporting livestock and poultry.

168. Since 1980/81, the CSA has conducted annual crop area and production sample surveys, and been using the classical method of data collection, i.e. compass and rope method for field area measurement and a 4m x 4m crop-cutting experiment for yield estimation. In the coming years, the CSA plans to make changes using improved technology, such as GPS for area measurement and reducing the size of the crop-cutting plot. There is a wide discrepancy in crop area and production estimates produced

by the CSA and BoARD and this has been a challenge for over a decade. Thus, the CSA has a plan to find solutions that will contribute to minimising the extent of the discrepancies, summarised in the following paragraphs.

169. For the past 25 years, the CSA has used a list frame for all socioeconomic surveys including agriculture. In order to improve the data quality and coverage in the coming five years, the CSA has a plan to apply an area frame augmented by satellite images.

170. The Ministry of Agriculture collects data using its development agents. These agents provide advice to farmers and also collect production estimates from farmers' associations that are compiled at *woreda* level, and passed through the various levels of the administration to form national, regional and zonal estimates. The CSA provided training to development agents in September 2008 to try to obtain better standardisation of methods, definitions and classifications.

171. The users' priority needs relate largely to additional data on commercial farming activity and modern crops, such as flowers, vegetables grown in urban settings and false banana production in the southern parts of the country, which constitute a major gap. Forestry and products, including myrrh⁷ and incense, are also major gaps. Livestock numbers in the non-sedentary areas are not collected except in 2001/02.

172. The agricultural census is intended to be a regular feature of the statistical programme, and will be repeated in the NSDS period.

Table 6.7 Priority data needs: Agricultural Statistics

Origin		Nature of need
1	Stakeholders' workshop	Introducing GPS measurement
2	Stakeholders' workshop	Changing from a list frame to an area frame
3	Stakeholders' workshop	Standardising CSA and MoRAD methods
4	Stakeholders' workshop	Improving coverage and quality of commercial farms' estimates using satellite and GPS
5	Stakeholders' workshop	CSA survey to include detail on improvements such as irrigation, terracing, soil conservation
6	Stakeholders' workshop	Improving forecasting methods by using agro-meteorological data
7	Stakeholders' workshop	<i>Woreda</i> -level data using small area estimation techniques
8	Stakeholders' workshop	Coverage of non-sedentary population, particularly livestock
9	National accounts/User-needs study	Commercial and state farms production
10	National accounts/User-needs study	Minor crops and vegetables

7. Myrrh is a reddish-brown resinous material, the dried sap of the tree *Commiphora myrrha* found in Ethiopia.

173. The CSA will collaborate more closely with MoRAD to improve techniques for the surveying of peasant farmers. These will include introducing GPS measurement for land parcels, and using an area frame and satellite imagery for areas of agricultural production and for land uses. The first two activities will be: i) to improve the methodology for the crop-forecasting survey by using the new techniques outlined above; and ii) to utilise satellite imagery for major areas of production. This will need to be supplemented with on-the-ground verification. Technical assistance is being sought to introduce these techniques.

174. For minor crops and vegetables, a household-based approach in both urban and rural contexts is called for. The labour force surveys should be explored as a means of providing this information.

175. The frame of commercial and state farms requires updating on a regular basis and an annual survey will be required. New techniques should be sought to improve response rates and this should be part of the methodological improvements planned.

6.11 Mining and quarrying

176. The Ministry of Mines produces regular data on the quantity of production of gold, tantalum, feldspar and quartz, kaolin, salt, silica sand, and soda ash. However, the ministry only collects data on outputs, not costs. The CSA attempted surveys of quarrying in 2004/05. Coverage in the business register, and therefore the survey, was poor and the results have not been published. There are no surveys or MIS-based estimates of alluvial gold panning.

177. The national accounts division of MoFED has expressed a desire for output estimates and production costs for all minerals.

Table 6.8 Priority data needs: Mining

	Origin	Nature of need
1	Stakeholders' workshop	Production of metallic & non-metallic minerals
2	User-needs study	Producer & retail prices of minerals in country and regions
3	Stakeholders' workshop	Output of quarrying products and cost of industry
4	Core need	Output of large-scale mines from Ministry of Mines

6.12 Energy

178. Data for electricity and the supply of petroleum products are available from the accounts of the electricity company and data on imports of petroleum products.

179. Several users expressed an interest in the consumption of various sorts of energy. However, these gaps required details that were more of the nature of one-off studies rather than official statistics.

Table 6.9 Priority data needs: Energy

	Origin	Nature of need
1	Stakeholders' workshop	Use of electricity, petroleum products and biomass by households and businesses
2	Core need	The supply of petroleum products from data on imports
3	Core need	Electricity generation and transmission from electricity-generating company

6.13 Water

180. In 2007, the Ministry of Water Resources (MoWR) launched the Global initiative for rational Water Information and Monitoring Systems (GIRWI) with United Nations Department of Economic & Social Affairs. The main goal of the GIRWI in Ethiopia is to develop, test and validate an approach for monitoring the whole water sector vis-à-vis the goals of the national water policy.

Developing the information systems is at its early stage. A water resources information and meta-database centre exists at the Ministry of Water Resources, as a central data and information warehouse for the water sector in the country. River basin studies are the major source of data for the country's water resources. There are no comprehensive indicators that are agreed upon by the different institutions for monitoring the whole water sector and its environment for regular reporting.

The CSA, on its part, collects and compiles water related data from administrative sources and surveys, i.e. welfare monitoring and health and nutrition surveys. It is also planned to enhance this effort by including data on water collection, treatment and supply and sewerage within the coming years.

Table 6.10 Priority data needs: Water and sanitation

	Origin	Nature of need
1	Stakeholders' workshop	The stakeholders' workshop did not strongly articulate a need for water data directly but only as a subset of environment data.
2	Bilateral discussion	It was pointed out that an agreed standard set of definitions needs to be used by all parties producing water related data.

6.14 Construction

181. The CSA has attempted to carry out annual surveys of contract construction, but without success. Some information on public sector construction is available from the MoFED but the only published estimates of construction activity are those included in the national accounts. The Ministry of Works and Urban Development also collects information on the number of construction companies licensed, but it is not widely publicised or distributed.

182. Interestingly, the major need that emerged in the user-needs survey was not for better output measures. Instead, there was a widespread desire from both government and private users for more and better price series for construction input costs. Some respondents also requested information on the number of projects licensed.

Table 6.11 Priority data needs: Construction

	Origin	Nature of need
1	Stakeholders' workshop	Number of projects licensed under construction - manufacturing, services & agriculture
2	Stakeholders' workshop	Numbers employed
3	Stakeholders' workshop	Length and type of road
4	User-needs study	Price of building materials
5	User-needs study	Material costs for building & construction
6	User-needs study	Labour costs
7	User-needs study	Equipment rental rate

6.15 Transport

183. Transport is one of the strongest areas of the Ethiopian statistical system. Air, water, and rail transport are well-covered, using administrative data from Ethiopian Airways, Ethiopian Airport Enterprise, the Ethiopian Roads Authority, the federal police, the postal service, the railways, and the Telecommunications Authority.

184. The only users who raised transport as a priority were the Government. Yet again, there were calls for more detailed price indices, and the authorities in Oromia wanted regional breakdowns to enable them to produce the same variables as those published at the national level.

185. No priorities for this sector were put forward at the stakeholders' workshop.

Table 6.12 Priority data needs: Transport and communication

	Origin	Nature of need
1	User-needs study	Road coverage (length & type) by region
2	User-needs study	Number & type of vehicles by region
3	Core needs	Compilation of road, air, rail, water transport and transit service
4	Core needs	Compilation of communications statistics (telecommunications and

6.16 Manufacturing

186. Estimates for large and medium-scale manufacturing are also one of the stronger areas of the existing NSS. There is a comprehensive register, an annual survey, and coverage is high. Small-scale and cottage industry is less well covered with only occasional surveys from the CSA. Extrapolations based on these surveys are made by the National Accounts section of the MoFED. A survey of large and medium scale manufacturing and the electricity industry is carried out annually by the CSA. Estimates for small-scale and cottage industries are extrapolated by the national accounts team from base year surveys, such as the small-scale industries and cottage industries surveys. The last small-scale industries survey took place in 2006.

187. The user-needs survey expressed worries about timeliness, with both government and non-government users voicing concerns. The large-scale manufacturing survey is filled by trained enumerators using audited accounts, and so can only be completed with a one-year lag; therefore, delays in publication are inevitable. However, the CSA has started producing quarterly business survey for large and medium-scale manufacturing industries and Producer Price Index for Manufacturing (PPI-M). Yet again, there were calls for a Producer Price Index (PPI) - the CSA is currently improving its range of price indices. However, there also seemed to be a desire for more analytical work on the existing survey to develop indicators such as productivity and capacity utilisation.

188. The stakeholders' workshop expressed priorities for a regular small-scale industries survey, and for strengthening the business register.

Table 6.13 Priority data needs: Manufacturing

	Origin	Nature of need
1	Stakeholders' workshop	Survey of cottage industries
2	Core need	PPI - agricultural and industrial
3	Stakeholders' workshop	Strengthening the business register
4	User-needs study	Producer price index - all industries

6.17 Trade

189. The system for the collection of wholesale and retail data in Ethiopia is similar to that of the construction industry. The CSA collects data from benchmark surveys (principally the distributive trade survey that was last run in 2003). From the benchmark survey, the national accountants then extrapolate estimates using models. Data on imports and exports are produced by the CSA using information provided by customs. Estimates of imports and exports of services are produced by the National Bank while compiling the Balance of Payments using the ticket system, under which banks have to indicate the purpose for which foreign currency is being purchased or sold.

190. As with most areas of economic statistics, the need for more price data was a major theme of the user-needs groups. However, there were also calls for more basic data on numbers of informal operators and traders.

191. The stakeholders' workshop highlighted regular surveys of the informal sector and the distributive trades as top priorities.

Table 6.14 Priority data needs: Wholesale and retail trade

	Origin	Nature of need
1	Core need	DTS
2	Stakeholders' workshop	Number and value of trade from informal sector operators
3	User-needs study	Transport & storage capacity of wholesalers
4	User-needs study	Licensed traders (wholesale, retail & services)
5	User-needs study	Wholesale Price Index (domestic & imports)

192. Import and export data are important and must be maintained. The user-needs exercise also discovered a demand for information on informal cross-border trade.

Table 6.15 Priority data needs: External trade

	Origin	Nature of need
1	Core need	Customs-based import and export data
2	Stakeholders' workshop	Export & import price indices
3	Stakeholders' workshop	Informal border trade and smuggling
4	User-needs study	Quantity & value of exported finished products and FOREX obtained
5	User-needs study	International market prices

6.18 Tourism and services

193. The system for the collection of tourism and services data (including restaurants and hotels) follows the, by now, familiar pattern of CSA benchmark surveys which the national accountants extrapolate using models. In the case of tourism and service, the 2003 Distributive and Service Trade Survey and the 1991 Labour Force Survey are used as benchmarks. The estimates are, therefore, based on very old service-sector data, and will require new benchmark surveys.

194. Although users wanted to have improved price indices, there were also quite substantial needs voiced for other datasets. In particular, there was a desire to establish a register of hotels, to collect some

basic information from the landing and departure cards, and to obtain estimates of the numbers employed in the industry.

195. The two major needs are for a survey of large hotels to give an indication of facilities, and the inclusion of spending information on exit cards to give an idea of spending.

Table 6.16 Priority data needs: Hotels and tourism

	Origin	Nature of need
1	Stakeholders' workshop	Foreign currency earnings from tourism
2	Stakeholders' workshop	Regular survey of hotels and restaurants
3	Stakeholders' workshop	Activities of tour operators
3	User-needs study	Number of tourists by country of residence, length of stay and purpose
4	User-needs study	Numbers employed in public and private tourism
4	User-needs study	Number of informal sector operators
5	User-needs study	Hotel facilities & services

196. Banking and Balance of Payments statistics are collected by the National Bank of Ethiopia. Ethiopia has only a handful of banks of which the Commercial Bank of Ethiopia is by far the largest, making it relatively easy to gather data from them.

197. There is an obvious need to carry on the collection in this area but the only user to raise this area as a priority was the IMF who said that improving foreign direct investment estimates would be useful to them.

Table 6.17 Priority data needs: Banking and balance of payments

Origin	Nature of need
Bilateral discussion	<ul style="list-style-type: none"> · Export/import price indices · Quarterly GDP and Real GDP by Expenditure · Foreign Direct investment Survey · NGO Survey · Wage and Salary Survey · International Border Trade and Smuggling Survey/Data

6.19 Insurance

198. The Ethiopian insurance industry is made up of the Ethiopian Insurance Corporation (EIC) and seven private insurers. The CSA publishes information on the EIC only but the National Bank and MoFED both obtain information from all the insurance companies directly.

199. No user raised this area as a priority.

6.20 ICT (and broadcasting)

200. As with banking and insurance, broadcasting, the media, and telecommunications are highly concentrated and largely state-owned, and provide excellent figures on the supply of all these services from administrative data. The provision of computer services is less dominated by the state. There is no direct survey of activity in this area and it is only captured to the extent that it appears in the 2003 Distributive Trades Survey.

201. The only user to identify priority needs in this area was the Ethiopian Telecommunications Agency, which was essentially asking for information about their potential customers.

202. Much of the information demanded is already available from household surveys. The addition of ICT access could be a change to the questionnaires in future surveys. ICT use could also be added to enterprise surveys.

Table 6.18 Priority data needs: ICT and broadcasting

	Origin	Nature of need
1	Core need	Domestic and international postal services
2	User-needs study	Households with radio
3	User-needs study	Households with television
4	User-needs study	% households with personal computer
5	User-needs study	Telecom within walking distance
6	User-needs study	Number of internet users
7	User-needs study	Accessibility online of companies

6.21 Public finance

203. Public finance data are collected and published by the MoFED. Data for central government are of reasonable quality but there are substantial gaps in the estimates for the locally raised revenue and the expenditure of regional governments.

204. The only user to raise this area as a priority was the IMF which asked for estimates of government budget financing from all the different sources that added up to the estimate for total financing. This will enable them to make better forecasts of the future availability of funds.

6.22 Prices

205. The CSA produces CPI and Agricultural PPI on a monthly basis. The CSA also publishes PPI-M on a quarterly basis.

206. The need for more and better price indices was one of the strongest findings to emerge from the user-needs exercise. Public and private users in all areas of the economy wanted a wide range of indices of prices and wages in all sorts of areas, and raised these as an important need in all sorts of contexts.

Table 6.19 Priority data needs: Prices

Origin		Nature of need
1	Stakeholders' workshop	Export/import price indices Import price index (consumption & investment goods) Export price index (consumption & investment goods) Divergence between export & import prices
2	Stakeholders' workshop	Import-driven inflation
3	Core needs	CPI
4	Core needs	PPI large manufacturers
5	Core needs	PPI agriculture
<i>The following are a repeat from section 6.1.4 Construction</i>		
6	User-needs survey	Price of building materials Material costs for building & construction
7	User-needs survey	Price of building materials
8	User-needs survey	Material costs for building & construction
9	User-needs survey	Labour costs
10	User-needs survey	Equipment rental rate

6.23 National Accounts

207. The National Accounts Department produces National Accounts, using the production method. Estimates are produced at current and constant prices from the production side, and at current prices only from the expenditure side. Sector accounts and annual supply and use tables are not produced.

208. The National Accounts Department is part of the MoFED, and the quality assessment indicated concerns about the degree of validation of data sources. The proposal for the future improvement of national accounts is for the CSA to improve its modelling capabilities to ensure that the estimates provided for national accounts are part of the CSA's outputs.

209. No users raised the improvement of national accounts directly as a priority issue. However, as the National Accounts Department is a major user of almost all areas of economic statistics, improvements in all the other areas will benefit the national accounts.

210. The unique position of National Accounts, as probably the heaviest single user of Ethiopian economic and social data, gives them an interest in the improvement of almost all areas of data. In fact, they returned several completed forms making it difficult to distinguish their priorities. Prominent were the common themes of more complete agricultural, construction, wholesale and retail trade, small-scale manufacturing, and hotels and restaurant estimates and better prices.

6.24 Cross-cutting issues: Gender statistics

211. Gender is one of the weakest areas of statistics according to the sector committees who reviewed data quality. Data relating to gender statistics are available in most of the CSA's regular household surveys; however, it is not currently analysed as a separate domain and the Ministry of Women's Affairs does not yet have the necessary statistical in-house skills to undertake its own analysis of existing data.

212. There is a great demand from the Ministry of Women's Affairs that gender disaggregated data should be generated not only from surveys but also from administrative data from various sectors. Therefore, emphasis should be given by each sector to have a mechanism of generating gender disaggregated data while compiling their administrative records. Moreover, the CSA has to support the Ministry of Women's Affairs to produce a report that compiles gender related statistics from a variety of sources, including the CSA's censuses and surveys and from routine data sources.

Table 6.20 Priority data needs Gender Statistics

1	Origin	Nature of need
2	Bilateral discussion	Pilot Time Use Survey

6.25 Cross-cutting issues: Environment

213. Environmental statistics were considered particularly weak by stakeholders. There is little or no organised data collection. The last plan identified this as a priority, but implementation was very weak as no appropriate methodology could be established. National and regional level climatic data are available and data on wildlife in parks are partly available.

214. The CSA does not play a part in the production of these data, which are drawn from a large number of agencies. With the scale of the estimated loss of natural forests, and the unique biodiversity of Ethiopia's habitats, these statistics will require strengthening. Soil depletion is also a serious national issue, both for food security and agricultural production. It affects the livelihoods of a large proportion of the population. The user-needs study showed that not only were environmental data a priority for some government users, but the private sector also expressed a need, in order to meet their national and international requirements to conserve the environment.

Table 6.21 Priority data needs: Environmental statistics

Origin		Nature of need
1	Stakeholders' workshop	Forest and land-use cover by satellite imagery
2	Stakeholders' workshop	Soil conservation
3	Stakeholders' workshop	Develop a suitable methodology

215. Additional questions will be included in the agricultural surveys to collect information on soil conservation and degradation.

216. New methodologies will be established using satellite imagery. Technical assistance on this will be sought. It is expected that satellite imagery can be carried out once every ten years.

CHAPTER VII

VISION, MISSION, CORE VALUES AND STRATEGY

7.1 Vision and mission statement

7.1.1 Vision

217. To be a credible and recognized national statistical system for better decision making, in support of sustainable socioeconomic development.

7.1.2 Mission

218. To produce and disseminate nationally coordinated, timely and good-quality statistical data for planning; monitoring and evaluation; for socioeconomic analysis, research and policy formulation.

7.2 The development of strategic themes and strategic objectives

219. A stakeholders' workshop was held on 10 and 11 October 2008, at Debre Zeit. From the discussions, six strategic themes emerged for the development of the NSDS over the plan period. These themes covered the development of the entire National Statistical System (NSS) in Ethiopia.

220. At the workshop, the stakeholders were asked to consider the data gaps and priorities that were established by sector working groups earlier in 2008, and, in particular, the statistical priorities questionnaires circulated to 91 statistical user organisations during August 2008. Using this information, each of the four broad subject matter syndicate groups were asked to recommend their top priorities. These priorities were used to define the strategic themes under the banner, 'Methodological improvements and statistical modernisations'.

221. Other strategic themes were also developed at the same workshop. The recommendations from the syndicate groups on data quality and on statistical organisation and governance form the basis of the strategic themes 1, 2, 3 and 5. In reaching these recommendations, the syndicate groups discussed the results of a light data quality-assessment framework that was conducted for 24 statistical domains as part of the preparatory work for the NSDS. The proposals that emerged included a recommendation to develop a data quality assessment framework suitable for use in Ethiopia (the DQAF-E), and for establishing a specialist NSS support unit in the CSA.

222. As part of strengthening compliance with the current statistics law (proclamation number 442/2005), a number of measures were proposed, including: consulting on and issuing directives on common definitions and classifications; and on the CSA's role in agreeing new statistical collections undertaken by NSS partners.

223. In addition, themes are included which strengthen capacity in the NSS and improve the use and accessibility of statistics in the country.

224. The strategic themes are set out in Table 7.1 and this is followed by a description of the proposed activities under each of the themes.

Table 7.1 Strategic themes for the NSDS

Strategic Themes	
1.	Implementation of the Statistics Law
1.1	The establishment of an NSS coordination, quality assurance and support unit in the CSA for coordinating the NSS, quality assessment and NSS capacity building
1.2	The development of common standards & definitions for the NSS and the issuance of proclamations by Council
1.3	The introduction of memoranda of understanding between the CSA and its NSS partners
1.4	The coordination of donor relations and statistical initiatives in the NSS
2.	Develop and implement data quality procedures
2.1	Developing a data quality assessment framework for Ethiopia (DQAF-E)
2.2	The development and support of ministerial statistical units in NSS partners
2.3	The strengthening of an NSS quality and support unit in the CSA for quality assessment and NSS capacity building
3.	Enhance advocacy and use of statistics
3.1	Developing an appropriate shared website for the NSS
3.2	Improving statistical launch procedures and press releases
3.3	Training for users including the media
3.4	Establishing regular consultations with data users
4.	Methodological improvements & statistical modernisation
4.1	Rationalising the household survey programme and its interface with improving routine systems
4.2	Agriculture & environment statistics - improve methodology and expand coverage to commercial farms, non-sedentary populations and to environmental affairs and natural resources

4.3	Continue to undertake agricultural censuses to maintain the basis for agricultural sampling and to provide periodic robust agricultural estimates
4.4	Welfare measurement - improve methodology and expand coverage
4.5	Improve business register and integrate data sources
4.6	Develop import / export indices
4.7	Population and demography: demographic projections, vital events and improved tourism information
5.	Capacity developments in the NSS
5.1	Development of analytical skills in the NSS
5.2	Increasing the supply of statisticians and associated ICT staff
5.3	In-service training and knowledge management in the NSS
5.4	Statistical associations and a professional body
5.5	Technological needs and improvements
5.6	Improve the buildings and physical work environment for statistics
6.	Relationship of NSDS to the Monitoring and Evaluation of PASDEP and other interventions
6.1	Remit of the NSDS for official statistics
6.2	Adequacy of NSDS statistics to populate monitoring systems in the PASDEP
6.3	Process for quality assurance of monitoring and evaluation surveys

CHAPTER VIII

RECOMMENDATIONS ON THE STRATEGIC THEMES

The following section details the recommendations for the strategy on the strategic themes.

Strategic theme 1: Implementation of the statistics law

1.1 The establishment of an NSS methodological and support unit in the CSA for quality assessment and NSS capacity building

A new unit to be set up in the CSA to coordinate the National Statistical System and work towards quality assurance and support in the NSS.

1.2 The development of common standards and definitions for the NSS and the issuance of proclamations

- The CSA will establish common standards, classifications and definitions for all producers of official statistics. These will be carried out in collaboration with NSS partners, using their expertise in specialist areas.
- The CSA will request the statistical Council to recommend the issuance of proclamations relating to quality, coordination and professional standards in the NSS.
- A definition of official statistics will be developed for use in government that will define which collections and systems are included in the agreements. They should be:
 - produced by government
 - sustainable - leading to time series
 - used beyond producing organisation
 - available to all simultaneously

1.3 The introduction of memoranda of understanding between the CSA and its NSS partners

- A legal template for NSS coordination will be developed by the CSA and NSS partners in the form of memoranda of understanding.
- The working arrangements to agree the MoUs will be between the individual data producer and the CSA.

- The MoUs will include agreements on the statistical programme for the producers and the arrangements for data sharing.
- The MoUs will ensure that statistical data are protected by the statistics law among all partners.
- Statistical units will be established in each NSS data producer.

1.4 The coordination of donor relations and statistical initiatives in the NSS

- Establish the means by which donors introduce *ad hoc* surveys to NSS partners, and the role of the CSA in quality assurance.
- Ensure that the MoUs consist of provisions for quality assurance, including donor-sponsored surveys.
- A donor group should be established in support of the implementation of the NSDS that encourages the implementation of the Paris Declaration principles.

Strategic theme 2: Developing data quality procedures

2.1 Developing a Data Quality Assessment Framework for Ethiopia (DQAF-E)

- A data quality assessment framework, which is specific to the needs of Ethiopia, should be developed by the CSA, utilising the recommendations contained in the DQAF.
- The DQAF-Ethiopia should be tested on a collection before being introduced.
- A number of Staff from the CSA should be trained in its use and comprise the common core of the assessment panel for each quality assessment. Specialists from ministries, regional bureaux, academia and research institutes should be included in the assessment panels, to ensure expertise in the collection or system being assessed is adequately represented.
- The results of the DQAF-E should be disseminated to users of statistics, and plans for improvement should accompany the results for inclusion in future work programmes.
- All data releases and publications of official statistics from the CSA and the NSS should be accompanied by metadata.

2.2 The development and support of ministerial statistical units in NSS partners

- Official statistics should be produced by a statistics unit that is covered by the Statistics Law.
- A liaison person, who is a qualified statistician, should be appointed by the CSA to liaise with each NSS data producer.
- Joint meetings for the heads of each ministerial statistical unit should be held once a year.

- Each ministerial statistical unit will agree a rolling five-year work programme with the CSA.

2.3 The strengthening of an NSS coordination, quality assurance & support unit in the CSA for quality assessment and NSS capacity building

- The CSA will establish an NSS quality and support unit to agree memoranda of understanding with partner producers, and agree common standards, definitions and classifications.
- The support unit will make recommendations to Executive Management of the CSA for proclamations relating to the governance and standards within the NSS in accordance with the statistics law.
- The support unit will manage the quality assurance of official statistics and publish the results of the assessment, including recommendations for improvement.

Strategic theme 3: Enhancing advocacy and use of statistics

3.1 Developing an appropriate shared website for the NSS

- The CSA should extend its website to include links to other NSS partners who will each have their own page and be responsible for updating its contents.
- The CSA should host a database and archives of all official statistical series. These should be presented as time series where possible.
- Partners should each have their own page to post publications.
- To improve results focus and to share analytical findings widely, analytical reports and associated datasets should be posted on a page.

3.2 Improving statistical launch procedures and press releases

- Every major release of official statistics should be accompanied by a press conference, in order to promote statistics and their use in the country.
- The CSA press and information office should be strengthened to improve advocacy, public relations and understanding of the implications of the results.
- To ensure that users are able to anticipate new data releases and consider them in developing policy cycles, a release calendar for the CSA's products should be posted on the website.
- Once statistical programmes are agreed with all NSS producers, a release calendar should be posted on the NSS website, which covers all producers of official statistics.

3.3 Training for statistical users including the media

- A training programme for data users should be established to ensure that users are aware of the microdata and are enabled to use it.
- A training officer should be appointed at the CSA.
- Workshops should be held to familiarise the users with available statistics, and training given in how to make use of them.

3.4 Establishing regular relations with data users and the public in general

- Annual consultations with users will be established: these will comprise questionnaires circulated to major user organisations, and to the users recorded by the CSA. The questionnaires will be analysed and followed by a one-day seminar for users to discuss the findings and to agree the programme of work for the next period.
- Frequent advocacy work should be realized to create awareness in the use of statistical data to the public.
- Integrating the importance of the statistical data in the education system should be well designed.

Strategic theme 4: Methodological improvements and statistical modernisation

4.1 Rationalising the household survey programme and its interface with improving routine systems

- Establish BPR processes in key MIS systems, and agree with the CSA a likely supply of routine data at small area level and the potential for developing a population register.
- Support from external partners should be sought on small area modelling to provide estimates for small geographical areas.
- When better MIS data is available, the CSA should consider reducing sample sizes and use MIS data for local area estimations and modelling.
- The content of survey instruments should be rationalised to eliminate duplication of efforts and improve comparability of results between surveys.
- Major national household surveys should be carefully planned with the capacity of the CSA in mind. Large new surveys should not overlap in any one year, and, where possible, an integrated survey programme with specialist modules should be developed.
- Ensure the agreed survey programme is deliverable in respect of human resource capacity.
- Establish a new master sample frame from the 2007 population and housing census.
- Investigate the introduction of UMPCs for data collection, to improve the quality of data collection in the field and to speed up data processing and editing by carrying out the main edits in situ.

- Continue conducting the annual employment /unemployment survey to track changes in employment and the informal sector as a key leading indicator and input to national accounts.
- Introduce a 5-yearly labour force survey (or a version of a modular WMS with an expanded informal sector and employment component) to undertake a full investigation of cottage industries, labour force issues (including child labour) and the interface between cottage industries and agriculture.

4.2 Agriculture and environment statistics - improve methodology and expand coverage to commercial farms, non-sedentary populations and to environmental affairs and natural resources

- Maintain the annual agricultural surveys but improve methodology by seeking technical assistance and reviewing best practice.
- Agricultural Census.
- Coordinate and harmonise data collection with the Ministry of Agriculture.
- Consider introducing questions on the growing, production and amount sold of vegetable and minor crops in the HICE or its replacement survey.
- Improve the frame of commercial and state farmers (develop stratified by size enterprise survey) and conduct agricultural surveys annually.
- Develop a methodology for environmental statistics and seek technical assistance on the sector.
- Develop a methodology for livestock estimation for nomadic populations; seek technical assistance on the most appropriate method of collection.
- There is a plan to change the existing agricultural survey to a rural socio economic survey.

4.3 Continue to undertake agricultural censuses to maintain the basis for agricultural sampling and to provide periodic robust agricultural estimates

- Include an agricultural census in the next plan period.
- Use the agricultural census to draw samples for special surveys of new farming activities, techniques or to investigate the outcomes of agricultural investments.

4.4 Welfare measurement - improve methodology and expand coverage

- Consider introducing a small panel component to the HICE to measure changes over time.
- Carry out methodological studies to improve data collection methods to improve quality and response rates.

- Carry out methodological studies to estimate the impact of adjusting the number of visits to households and the time of year the data are collected.
- Investigate the introduction of UMPCs in the HICE to improve quality and timeliness.
- Consider a rolling programme of surveys with a core module and optional subject matter modules that change on a periodic basis.

4.5 A comprehensive business register: Improve and maintain

- A comprehensive business register (including state and commercial farms) will be established and a process put in place for continuous and sustainable updating.

4.6 Business statistics: Improve and expand coverage

- Develop techniques for sampling and modelling estimates for complex surveys especially in construction, small-scale manufacturing, mining, and the distributive trades.
- Develop a series on import and export price indices.

4.7 Population and demography: Demographic projections, vital events and improved tourism information

- Develop new population projections from the 2007 Population and Housing Census at the earliest opportunity.
- Review population projections every five years, using new assumptions on fertility, mortality, household formation and migration derived from surveys and routine data sources.
- Seek technical assistance on developing population projections on a five-year schedule.
- Review progress of vital events; pilot and establish a programme for collection, once the law is passed on vital registration. Consider the feasibility of developing a population register once vital registration is established.
- Utilise migration data from household surveys to improve demographic assumptions and improve question content where necessary.
- Seek improvements to arrivals and departure cards to improve international migration assumptions and to estimate foreign earnings from tourism.

Strategic theme 5: Capacity developments in the NSS

5.1 Development of analytical skills in the NSS

- For economic statistics, the CSA should estimate output from each sector on an annual basis and supply results to users and intermediate users, such as the national accounts department.

- Provide analytical reports on surveys on the website and to NSS partners.
- Train users and producers in analytical and modelling skills (see also Theme 3.3).

5.2 Increasing the supply of statisticians and associated ICT staff

- Carry out a staffing and training needs assessment throughout the NSS.
- Investigate turnover and recruitment patterns of statistical and ICT staff in the NSS.
- Submit recommendations to the Statistics Council for improvements in remuneration and in the grading scale, minimum qualifications and recruitment procedures for staff in the NSS (statistical and ICT).

5.3 In-service training and knowledge management in the NSS

- Using the training needs analysis, the CSA should develop a training programme for NSS staff.
- Establish a system of knowledge management and recording in the NSS to ensure that methodologies and manuals are maintained and available for all official statistics.
- Ensure that the supply of all statistical data and publication is maintained including redressing the problem of out-of-stock publications.

5.4 Culture of professionalism and quality in the NSS

- Establish performance monitoring in the NSS by means of a work plan and SMART indicators, including a data release timetable.
- Annual performance assessment should be considered in BPR to ensure that release timetables are met in the CSA and in the NSS.
- Provide an annual report on the performance of the statistical system against agreed performance indicators to the council
- Develop the Statistical profession ethical code to reinforce statistical values throughout the NSS.
- Agree a programme of quality assessment of all statistical surveys/censuses, including National Accounts and Balance of Payments on a planned timetable.
- Include outside subject matter experts in the quality-assessment process.

5.5 Technological needs

- Improve the CSA website by increasing its speed, and upgrade the server to enable remote updating, access to microdata and its effectiveness to users.

- Ensure that publications are disseminated on the website on release day.
- Ensure that all regional offices are networked to the CSA.
- Introduce data capture and editing in the field to speed up fieldwork and editing processes and improve quality.
- Introduce Computer Aided Telephone Interview (CATI) system to enable larger enterprises to be surveyed by telephone.
- Strengthen Geographic Information Systems (GIS) infrastructure and analysis capabilities at the CSA
- Strengthen GIS utilization at a regional level.
- Introduce improved software for improving data processing, analysis and dissemination of official statistics.

5.6 Improving the buildings and physical work environment for statistics

- Improve the office environment by refurbishing or rebuilding, in order to create a modern office environment for the CSA that can be easily adapted to accommodate modern management and technological practices.
- Review the office conditions of statistical units, and recommend improvements or refurbishing where necessary.

Strategic theme 6: Relationship to monitoring and evaluation of PASDEP and other interventions

6.1 Remit of the NSDS for official statistics

- The NSDS will not include *ad hoc* or research needs but will be restricted to official statistics.
- Sustainable statistics to be added over time as needs change and new collections are introduced.

6.2 Adequacy of NSDS statistics to populate monitoring systems in the PASDEP

- NSDS to be checked regularly against priority M&E needs, and users surveyed regularly to ascertain needs and timetables for policy monitoring and development.

6.3 Process for quality assurance of monitoring and evaluation surveys

- To ensure that users are guided on data quality and applicability, a process of quality assurance should be applied to *ad hoc* surveys for M&E surveys, and metadata should be made available for the assessment.

CHAPTER IX

SYSTEM-WIDE DATA IMPROVEMENTS

9.1 Coordination of the National Statistical System

9.1.1 Improvements in governance

225. The syndicate groups were asked to give their opinions on a number of questions relating to the coordination and governance of the National Statistical System. The results have been included in section 9.1. The questions are as follows:

- Should the CSA set common standards for all official statistics?
- Should the CSA quality assess all official statistics (and to what timetable)?
- What would be the interagency structures needed for NSS coordination?
- What protocols or MoUs would be needed?
- Where should the data on official statistics be stored?
- What problems for data sharing are anticipated (legal & practical)?
- What professional development and standards should be set for the NSS?
- Should the CSA outpost professionals to NSS stats units?

226. It was agreed at the stakeholders' workshop that the Statistics Law should be enforced, and that the CSA needed to develop a stream of work to strengthen all official statistics in Ethiopia. The participants endorsed the following responses to the questions:

- a. The CSA should set common standards for the National Statistical System in close collaboration with NSS stakeholders. These standards should ensure comparability, consistency and compatibility with international standards.
- b. The CSA should quality assess all official statistics in the country, in order to maintain standards. The DQAF should be adapted to suit the Ethiopian environment.
- c. In order to do this, a coordination unit should be established in the CSA and a statistical unit should be established in each NSS producing department or agency. The CSA should identify a specialist statistician to link with each NSS data producer.

- d. Memoranda of understanding (MoUs) will be required between each statistical producer and the CSA. The MoU would be specific to each organisation and agree the mode of cooperation, means of data sharing, and the obligations on both organisations. The obligations would include data quality standards, timing of releases and exchange of information. It would also include agreements on the responsibilities of the CSA to provide support, training and building capacity to the NSS partner producer.
- e. Official statistics should be stored by each producer, and a copy maintained in the CSA databank. Ethical standards should be protected by means of protocols.
- f. The CSA should provide training and capacity building to its NSS partner institutions. It should not outpost statisticians to other statistical units in the NSS.
- g. Professional associations should also have a role in maintaining standards and ethics.
- h. The right of publication of official statistics should be vested in each NSS member in line with the quality assurance procedure set by the NSS.
- i. A technical committee was recommended, comprising federal organisations, regional bureaux, donor agencies and research institutions. This body would review NSS progress and agree common issues.

227. It was agreed at the workshop that the responsibility for publishing official statistics would rest with each producer organ of state, but that each collection should be subject to periodic quality reviews. All results and publications would be made available on the NSS website managed by the CSA. A definition of official statistics will be developed for use in government (see Strategic Theme 1.2), that will define which survey/censuses and systems are included in the agreements. They should be:

- produced by government;
- sustainable - leading to time series;
- used beyond producing organisation;
- available to all simultaneously.

228. Based on this workshop, mandates for institutional arrangements are proposed for the CSA and the NSS. The first requirement is a coordination unit for the NSS within the CSA. Currently, the Deputy Director General responsible for Operation, Methodology and Data Processing is responsible for the methodology unit. One issue that arises from NSS coordination is that this involves relationships between government departments. A second issue for consideration is that the work involves quality assessments of the data from the CSA. Some statistical authorities create a separate statistical quality agency to overcome these obstacles. In the case of Ethiopia, quality assurance is a first step, and needs development under the umbrella of the CSA. It would be appropriate to create an NSS coordination unit, reporting directly to one of the Deputy Director Generals in order to ensure that the interactions are at an appropriate level.

229. The NSS coordination unit in the CSA would involve the following functions:

- a. data-quality assessment - the development of Ethiopian quality standards based on the DQAF model;
- b. agreeing memoranda of understanding between the CSA and each NSS statistical producer;

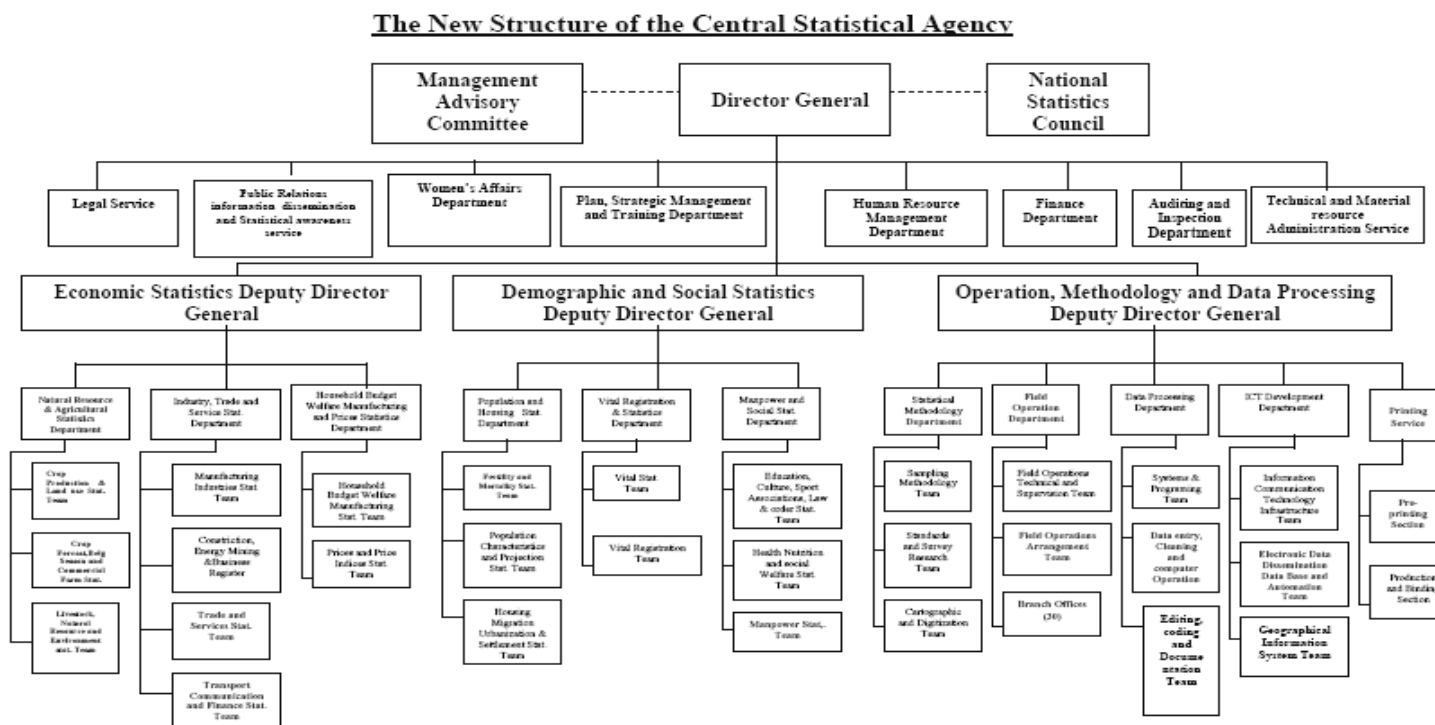
- c. agreeing ethical standards and agreements between parties;
- d. preparing advice protocols and proclamations for consideration by the Statistics Council;
- e. issuing quality assessment reviews for specific statistical collections or composite systems such as BoP or national accounts;
- f. agreeing the NSS work programme with each statistical producer;
- g. setting up technical working parties to agree common standards and definitions;
- h. setting up technical working parties to review quality once the quality instruments have been agreed; drawing in expertise from the CSA, NSS partners and from academia or research institutions; and
- i. eliminating and reducing duplication within the NSS in the production or publication of statistics.

230. The unit should be staffed by a very senior statistical expert, and include experts to develop quality standards, legal agreements and common standards and definitions. Each assessment will be carried out by a team that includes experts from the unit, trained in quality assessments, in addition to experts in the subject matter being assessed. These subject matter experts will be drawn from across and beyond government.

231. There are already documents relating to common concepts and definitions, and to common codes used in the CSA. These documents should be discussed, built on and added to in technical working groups, involving the CSA specialist in the subject matter, the NSS partner specialists, and any available expertise from outside research or academic institutions.

232. A training unit should be established to provide training and capacity building to NSS partners and users.

Figure 9.1. Current structure of the



CSA

9.2 Data Quality Assessment Framework

233. A system of quality assessment is an essential component of a modern statistical system in order to:

- build confidence in the NSS among users;
- provide users with information on the relative strengths of different data series;
- identify areas for improvement;
- give feedback to producers.

234. There are difficult technical issues in developing such a system. The naïve approach to the quality of a data series would be to calculate measures, rather like confidence intervals, giving the difference between the published data and the unknown ‘truth’. However, this true figure is, of course, unknown. Although it is possible to calculate sampling error, this in itself is only a small part of the problem and is of no use in analysing the quality of administrative statistics and management information systems; it is also of very limited use in looking at complex statistical systems, such as national accounts or balance of payments. For all these reasons, assessing statistical quality assessment is more closely connected with accountancy procedures, such as auditing, that look at systems, rather than with mathematical procedures, such as variance estimation, that apply to individual figures or series.

235. This does not mean that it is enough to identify trusted auditors and ask them to apply their undirected subjective judgement. Instead, we try to reduce the subjective element of a quality assessment by using as many yes-no questions as possible and putting them into a structured framework, such as the IMF’s Data Quality Assessment Framework (DQAF). Such frameworks are not ideologically neutral. For example, questions about the independence of statistical production presuppose that it is a good thing for statistical producers to be independent of the activity that they are measuring. Furthermore, it is impossible to eliminate the subjective element to quality assessment so the question of who will undertake the assessments is an important political issue. Good quality assessment requires a permanent organisation with financial resources and staff skilled in quality assessment, and able to work full time on the task. If these are located in the organisation producing the data, there must be procedures to ensure that they can apply the quality framework objectively. At the same time, however, they will need subject matter knowledge about the series being assessed. It is very difficult, for instance, to assess an agricultural statistics system without knowing something about agriculture.

236. The DQAF exercise, carried out as part of the NSDS process, was useful in stimulating discussion about the National Statistical System, and providing a large number of NSS staff with experience in using a Data Quality Assessment Framework. However, it also raised a large number of questions about the suitability of the IMF DQAF for Ethiopia and how it might be applied. The steps needed to develop an Ethiopian quality assurance system are:

- a. creating a suitable group of stakeholders to work on developing a

- b. DQAF-E for Ethiopia;
- c. deciding on the dimensions to use;
- d. deciding on the sub-dimensions to use;
- e. deciding and agreeing on individual questions to test the level of systems in each sub-dimension;
- f. carrying out trial assessments;
- g. developing a suitable unit to carry out quality assessment within the NSS;
- h. agreeing on a regulatory framework and passing any laws or decrees required;
- i. agreeing on procedures for compiling reports and on what should be done with them when they are produced, how they should be communicated to the public, and in what form;
- j. agreeing on staffing and a budget;
- k. recruiting, co-opting and training suitable staff;
- l. agreeing on a programme of assessments.

9.3 Improving the system of economic statistics

9.3.1 The business register

237. The foundation of any system of business statistics is an up-to-date register. While the CSA register for large manufacturers and electricity producers is comprehensive, coverage for other areas is poor, making it extremely difficult to produce good quality estimates for these areas. In February/March 2004, the CSA carried out a Census of Economic Establishments aimed at establishing a complete statistical business register. However, due to a number of factors, the results of the census were deemed unfit for any reasonable use. In the short term (2–3 years), it is beyond the CSA's limited means to attempt another Census of Economic Establishments and, even if it were possible to carry one out, it would be impossible to maintain the register by this means. However, a Census of Economic Establishments is only one way of compiling a business register. An alternative is to combine and standardise the registers collected by other bodies for administrative purposes. To this end, the CSA have sent out questionnaires to the VAT registration office, Federal Inland Revenue Authority, the Ministry of Trade and Industry, the Ministry of Works and Urban Development, the Addis Ababa Trade and Industry Development Bureau and the Ethiopian Chamber of Commerce. Table 9.1 shows the main results.

Table 9.1 Information held on administrative registers

Name of the Organisation	Renewed annually	Includes started operating indicator	Includes closed down indicator	Includes number of employees	Includes capitalisation
VAT Registration Office (500,000 ETB+)	N	N	Y	N	N
Federal Inland Revenue Authority	N	Y	Y	Y	N
Ministry of Trade & Industry	Y	N	N	N	Y
Ministry of Works & Urban Development	Y	Y	Y	Y	Y
Addis Ababa Trade & Industry Development Bureau	Y	N	N	N	Y
Ethiopian Chamber of Commerce	N	N	N	Y	N

Source : survey of business-registering organisations: CSA 2008

238. The inquiry found that all the bodies approached maintain computerised databases and are willing, in principle, to give the CSA access to them. However, not all of the registers will be equally useful. For instance, three of the registers do not record when a respondent closes down and may include long-dead enterprises. Only two registers indicate when respondents begin operating and these may include many enterprises that were registered but never actually traded. However, two of the registers that do not include these indicators require registration to be renewed annually, which should minimise the problem. All of the registers, except the VAT register, contain some indication of the size of the enterprises. All of the registers include a system of classifying businesses by activity but this may differ from register to register as may the definition of what is being registered.

239. Simply adding all the existing registers together and drawing samples from the result would produce completely unsatisfactory samples. This is because many of the firms would turn out to be closed, or never to have opened, or are not contactable. Misleading raising factors, or weights, based on the same firm appearing two or three times in the register, could arise. Instead, the following steps need to be followed:

- a. obtaining the laws and regulations covering each register;
- b. determining who is supposed to register classifications that are used, and the fields recorded in the database;
- c. the validity of the contact information should be the next step (addresses, phone numbers, geo-referencing);
- d. obtaining copies of the register for comparison, and loading them on a common database;
- e. developing automatic or manual procedures to weed out duplicate names and addresses;

- f. developing bridge tables, where possible, to reclassify the register entries to ISIC;
- g. assessing the register and developing a register ‘proving’ instrument to capture information not given in the source registers; and
- h. setting up a system for regular updating and proving of the register.

9.3.2 Sampling and modelling for complex modern business sectors: construction, small-scale manufacturing, mining, and distributive trades

240. Even with the best possible register, there are some areas of the economy where measurement is inherently difficult. This is because the turnover of enterprises is very rapid, they change size very frequently, they may be very difficult to locate, and they may respond very poorly to questionnaires. Nonetheless, the CSA should aim to produce annual estimates of output in these areas even if it does not do a survey every year.

241. Probably, the most common example is construction. Construction enterprises can have very few permanent staff but take on large numbers of workers for individual projects. New enterprises are often created for each project and there are many informal ones producing residential buildings and shops. Finally, the extensive use of subcontractors presents a risk of double counting. This means that the totals on the register for variables, such as employment and turnover, rapidly go out of date and traditional survey-based methods that rely on these estimates are not useable.

242. The alternative to traditional survey-based methods is to split the domain being investigated into segments for which traditional methods will work, and into those for which they will not. Ratio estimates should be made for the latter based on variables for which it is possible to make national estimates. Table 9.2 gives an outline of such a system for construction. The national variables available are: the construction contracts issued by public bodies; the taxes collected from formal sector construction businesses; and the national supply of some materials, such as cement and corrugated iron, that are used largely in the industry. Some of these totals will be accounted for by large-scale firms that can be captured using traditional methods, but the residual must be used by the smaller firms. Estimates for the smaller firms can be made by using this residual to calculate a scaling-up coefficient for a sample of the firms for which information can be collected, or by applying technical coefficients derived from studies or the opinions of experts such as quantity surveyors. However, such coefficients can only be applied to homogenous activities. For example, applying the same coefficients to urban and rural residential building would be misleading.

Table 9.2 Outline strategy for comprehensive construction survey system

Sub-Sector	Collection method	Variables collected	National estimates
1 Large contractors (LC)	Traditional census/survey-based methods	Government contracts by project type	Census and employment based rating up
		Non-govt contracts by project type ³	
		Target variables by project type	
		Use of totalable materials ¹	
		Use of non-totalable materials ²	
		Tax paid	
2 Small and medium contractors (SMC)	Survey but using non-traditional rating-up methods	A Government contracts by project type	AT = Total govt contracts - govt. contracts to LC
		B Non-govt contracts by project type	BT = B * (FT - AT * tax rate) / (F * B / (B + C))
		C Target variables by project type	CT = C * (AT + BT) by project type
		D Use of totalable materials	DT = sum for project types
		E Use of non-totalable materials	ET = sum for project types
		F Tax paid	FT = Total tax - LC tax
3. Formal own-account construction	Take known own-account estimates from manufacturers' survey and Government only and assume the rest is zero		Assume same cost structure as for SMCs
4 Repairs	Use perpetual inventory method for stock of buildings and apply an assumed repairs ratio		Assume same cost structure as for SMCs
5 Informal construction	Other variables = DTI * technical ratios derived from small studies		
	DTI = Totalable materials supply – Totalable materials used by 1. to 4.		
	ETI = DTI * technical ratios derived from small studies		

1. e.g. Cement or corrugated iron where we can get total supply from imports plus local production

2. e.g. Sand or gravel where it is difficult or impossible to obtain direct estimates of total supply

3. e.g. Roads two/one lane metalled, roads non-metalled, airfields, electricity transmission, telephone lines, hospitals/clinics/schools, dams, dykes, factory/warehouses/garages, offices/hotels multi-storey, offices/hotels single-storey, other non-residential, residential urban/formal, residential rural, etc.

243. Note that a construction system can also provide an estimate for consumption, and, therefore, output for quarried minerals. Ratios derived from studies or small sample surveys can then be used to estimate other variables needed. Estimates for alluvial gold, the other main area of informal mining, are more difficult. Gold panning is a truly informal activity that requires no specialised inputs and the price structure provides no incentives to sell through authorised dealers. The only way to pick up such activities is through specific questions attached to the household survey in the areas where gold panning is possible.

244. Accurate estimates of output for the industrial gold, tantalum, feldspar and quartz, kaolin, salt, silica sand, and soda ash are available from the Ministry of Mines. Concentrating on the relatively few companies producing these minerals, it will be possible to collect the other variables required, using the output estimates for rating up.

245. Small-scale and cottage manufacturing can be split by type. Some small-scale manufactures can be estimated by a simple commodity flow method. Grain is eventually milled and so its supply gives a good indication of the amount of cottage and small-scale milling. The volume of cloth imported and woven locally gives an indication of the amount of clothing produced, and so on. In order to employ these methods, however, it is important to make sure that the amount of resources being used by the large-scale industries is recorded in the large-scale survey, and that the proportion going directly to households is stable. There are also many industries, such as furniture manufacture, where the number of employees is the only indicator of output. In order to produce annual output indicators, it is, therefore, necessary to have:

- a small-scale and cottage industry survey every three to five years. The key element here is ensuring that the small-scale industries survey does not inadvertently capture any large-scale industries as well; and
- an annual light Labour Force and Informal Sector Survey to establish the numbers working in each industry. The degree of disaggregation, and, therefore, the sample size, will depend on the extent to which output per head varies from occupation to occupation.

246. These surveys are essentially household surveys that must be incorporated into the household survey programme.

247. The commodity flow method is also the core technique for making estimates of wholesale and retail distributive trade. The key survey-based input is the retail margin by type of commodity, e.g. vegetables, clothes, etc. These have to be established separately for large-scale and small-scale producers. The small-scale survey could be conducted in coordination with the small-scale and cottage industry survey.

248. Hotels and restaurants split into the following groups:

- a. very large hotels such as the Hilton and Sheraton: these should be surveyed every year;
- b. hotels and restaurants catering largely to international travellers: total spending by travellers should be estimated in the tourism statistics and used to rate up a light touch survey of these enterprises every three to five years; and

- c. hotels and restaurants catering largely to Ethiopians: these establishments should be captured using a reduced distributive trade survey every three to five years, and the survey should be rated up by looking at the total number of households in the population and the number of times each week that each is likely to eat outside the home (note in many cases this may be zero).

249. Estimates for other services can also be produced by a household survey every three to five years. Annual estimates should be produced using an activity survey.

9.3.3 Import and export price indices

250. Export price indices are relatively simple to compile because many of the most important export commodities, e.g. coffee, are homogenous and well understood by customs. The same applies to some major imports such as grain and crude oil. Some capital imports, on the other hand, will be one-offs. If Ethiopia imports turbines for a large dam, for instance, they will be unique and a unit value index will be meaningless. The only way to obtain a price index for such machinery is to look at appropriate export price indices in partner countries. Any import price indices must, therefore, employ different approaches for different commodities. Finally, there may be some commodities, shoes for example, where neither approach is appropriate. Here, it will be necessary to maintain a panel of major importers and collect prices for typical products from them in the same way that we do for a PPI.

9.4 Improving social statistics and integrating household surveys

251. Many surveys are conducted in Ethiopia by the CSA and yet others are conducted by other government bodies and ministries. Many of the surveys have remained in the same format for many years: this has the advantage that estimates over time are directly comparable. There are also disadvantages, as the instruments do not respond quickly enough to new needs. One particular feature, which many countries are now moving away from, is the single purpose survey conducted on a five-yearly schedule. Monitoring systems and policy needs tend to require data more frequently than every five years and, in particular, national accounts need some estimates for the important sectors of the economy on an annual basis. Some of this information can only be derived from household surveys. This is particularly the case for the informal sector and for small-scale agriculture, both of which are subject to rapid changes as a response to climatic or economic factors. The agricultural sector in Ethiopia is expected to undergo rapid change in the next five years, and this may be in vegetables, flowers and non-traditional crops that are not well captured by classical agricultural surveys. Studies in East Africa have shown that production of these crops is better captured by household surveys.

9.4.1 Improving efficiency and integration

252. There is a danger that too many individual surveys are planned for the capacity of the CSA, which could result in data quality compromises, or changes to the work programme which could result in users' expectations not being met. Other aspects of the CSA's role are as important as primary data collection. These other functions of a statistical authority include coordination, data access, quality assurance and utilising data collected for estimation and modelling purposes. It would be unusual to have a

modern statistical agency whose role was restricted simply to data collection. Capacity should be utilised for the range of roles and responsibilities.

253. In addition, there is much duplication in the household survey questionnaires: the DHS captures much of the material that is also included in the WMS, and the LFS overlaps with both. Many countries have moved to an annual integrated survey, with special modules each year. The advent of new technology means that equipment, such as UMPCs, are capable of supporting field data entry, and field checks and editing which will greatly improve the quality and timeliness of surveys. It is not yet appropriate for Ethiopia to move to this approach, as more methodological work will be required to develop appropriate instruments. Nevertheless, a more integrated approach will be taken to ensure household surveys maximise the field management efforts and collect data for a number of needs simultaneously.

254. The improvement of routine data is expected to provide much better data at *woreda* level, and the introduction of new techniques such as poverty mapping and satellite imagery will enable the CSA to model and estimate statistics to a much lower level.

255. Methodological improvements are planned for all surveys and time should be allowed for in the schedule to plan and test the new techniques. No more than one large-scale new national survey will be attempted each year (DHS, WMS/HICE, and LFS). In addition, an annual Labour Force and Informal Sector survey will be conducted, as well as the current, but improved, household-based agricultural surveys. These programmes have been discussed in detail in Chapter 6 but will be summarised below.

9.4.2 Household survey programme

256. The household survey programme will be as follows:

- The Welfare Monitoring Survey and Household Income and Expenditure Survey will be conducted on a five-yearly cycle. A new methodology will be developed to allow for better quality data collection and a panel component will be added for making poverty comparisons over time which are unaffected by sampling error. The new methodology will develop a more modular approach, to incorporate a wider range of indicators and to standardise the question forms used in all surveys. Care should be taken to minimise the disruption that this might cause to time series. Experimental testing should take place on the new instruments, to assess the impact this would have on expenditure estimates;
- A national Labour Force and Informal Sector Survey will be conducted on a five-yearly cycle. The modular approach adopted by the WMS/HICE might be used for this by minimising the consumption component, and using an expanded labour and informal sector component. Some labour force and informal sector information is also needed annually, but the labour components of the annual Light Survey and the WMS/HICE are likely to be very restricted in their ability to cover the full range of labour and multiple or seasonal informal sector activities. The full Labour Force Survey will cover the informal sector, child labour, seasonal activities, income sources and multiple economic activities over the long and short reference periods;
- Annual Light Employment and Informal Sector Survey - annual survey of limited sample size to capture small household enterprises, employment trends, and small-scale agricultural products for

sale, such as flowers, vegetables and spices. This will be used to estimate informal sector activity for national accounts;

- Demographic and Health Surveys - five-yearly frequency; and
- Annual peasant agricultural crop production, land utilisation, and livestock surveys, including off-farm activities.

9.4.3 Methodological improvements

257. Methodological improvements will include:

- Introduction of UMPCs in fieldwork to improve quality and timeliness;
- Processing of data in regional centres;
- Review of the methods of collection for the HICE/WMS;
- Changes to the agricultural surveys to include GPS measurement, area frame sampling and small area projections;
- Use of satellite imagery for agriculture and environmental statistics;
- A new, national, annual household survey to capture informal sector activities and earnings, employment, and the growing of small high value crops in both urban and rural areas. A new methodology will be required;
- Development of an appropriate methodology for environmental statistics; and
- Poverty mapping and small area projections, leading to poverty proxies and, perhaps, an asset-based index.

9.5 Improving the infrastructure and ICT base for statistics

258. Statistical production is a knowledge-based industry and is dependent on ICT and new technology to collect data efficiently and to high standards, to convert it into useable information and statistics, and then to transmit the results to the users.

259. ICT equipment is very rapidly obsolete and needs replacement and maintenance. Increasingly, users expect to obtain their information electronically, via the internet. In improving the service to users, the electronic interface and the internet is a high priority. The following improvements and needs are included in the strategy.

9.5.1 Website for the NSS

260. The CSA website will require two new developments:

- Improved links to NSS partner websites that provide statistics. Each NSS partner website should include a separate statistics page that is presented in a common format. Results should be presented in series and include the regular publications and any analytical reports. Metadata should be included for all statistics. Each partner in the NSS should include their annual work programme and planned release calendar for statistics.
- The website should improve its interactivity facilities and enable users to download microdata in a selective fashion.

261. The requirements for this include an improved bandwidth. Currently the speed is 512 kb, but 1 MB bandwidth is available and will be planned for in the budget. New software will be required to improve functionality, and appropriate software will be needed to enable online access to microdata. Technical advice will be sought to select appropriate software.

262. The website will be continually updated and new data releases should appear on the website and in printed copy simultaneously.

9.5.2 Data collection

263. New technology is available to improve data collection techniques during the plan period. This new technology will gradually be introduced and tested to improve quality and efficiency in data collection. The new technology to be introduced includes:

- UMPCs - earlier versions are already being introduced into prices data collection.
- GPS for measuring crop areas;
- CATI system for telephone interview for related surveys to large and medium sized enterprises; and
- Satellite imagery for agricultural and environmental estimation: to improve mapping activities and for area-based selection.

9.5.3 Networking

264. To improve communications between regional offices and to facilitate data processing and dissemination at regional level, the CSA's regional offices are to be networked. Ten offices will be networked in 2009/10 and all offices will be networked at least by the end of the plan period.

9.5.4 Satellite imagery

265. The population census included support to purchase a national set of satellite images that have been passed into the custody of the Ethiopian Mapping Authority, which has the mandate in Ethiopia. It is planned to include a new set of images every five to ten years. The investment cost is large (US\$ 3.2 million) but it will provide a facility for all users in Ethiopia and enable tracking of environmental, agricultural and settlement patterns.

9.5.5 Replacements and maintenance

266. Replacements and maintenance of equipment is important in maintaining a statistical system. Replacements will be required in the CSA at a rate of 25 PCs per year.

9.5.6 Buildings

267. The CSA occupies a campus of buildings, most of which are old and not well suited to a modern statistical agency. Additional space will be required in order to provide for training and joint working among NSS members. Under the programme to improve coordination and results focus among producers and users, a classroom equipped with computers will be required. This classroom will be used to train NSS members, reinforce and improve the quality of data and, in particular, to undertake a wider range of analytical activities. The objective is to improve statistical skills and analytical capacity throughout the NSS.

268. Any major investment in the statistical system should consider rebuilding or renovating the existing buildings for the CSA. Currently, the CSA occupies very old buildings on two campuses on either side of a busy street. The buildings are poorly connected to one another and have inadequate infrastructure and facilities for a modern statistical agency. Of particular importance is the support of effective team working; currently, there is little cross-agency work and team working is hampered by the physical limitations of the building. A high priority will be good training facilities and access for users to the CSA's library, publications and archives. Some statistical agencies in the region are able to support user-centres that provide access to computers and databases, with library and support staff on hand. The CSA have the capabilities to support such a centre, and, in fact, already have a good library, but, at present, the buildings prevent good public access to their full range of resources.

9.5.7 The role of external development partners

269. The Paris Declaration is an agreement that seeks to improve the effectiveness of the development process and includes a number of commitments for both partners. This is very relevant to official statistics that are a public good to users who span the globe. The need for official statistics routinely exceeds the capacity of statistical agencies to provide them. Therefore, in accordance with the principles of alignment and country ownership, development partners should seek to support the National Statistical Development Strategy, rather than imposing additional burdens on the statistical system.

270. It is good practice for external partners to form liaison committees and to appoint a lead donor to represent the views of the others, and to ensure that the processes of alignment, harmonisation and mutual accountability are observed. This process of alignment and harmonisation has already been successfully implemented around the M&E strategy for the HMIS, and should be applied to the support of the CSA and statistics in other ministries. Donors are asked to establish a statistics committee to agree support to the NSDS, in accordance with Paris Declaration principles.

271. The process of supporting statistics with development assistance requires reporting systems to be established to give a satisfactory account of the progress of the support and to account for financial expenditures. External partners are requested to use the CSA systems and those of other NSS members, rather than establishing parallel systems. The CSA will prepare a report on the implementation of the NSDS each year to ensure mutual accountability.

272. It is inevitable that donors will have additional needs to those set as priorities for the NSS. Some partners still believe that it is acceptable to fund activities that divert civil servants from their agreed priorities. This process will be discouraged in the implementation of the NSDS.

273. External partners, civil society and research institutions may wish to run their own surveys. Where these are run for, or by, other government bodies, and where the results will be published officially, the CSA will wish to ensure that the minimum quality standards have been met. All such surveys will be submitted to the CSA for comment before fieldwork commences, and a proclamation will be issued to all NSS partners to this effect. All development partners are encouraged to provide technical and financial assistance to the NSS, mainly using this NSDS document.

9.5.8 Training and capacity in the NSS

274. *Strategic Theme Three - Enhancing Advocacy and Use of Statistics* and *Theme Five - Capacity Developments in the NSS* recommend a number of training activities for the NSS. The results of the consultation exercises show that a wider range of users needs to learn what statistics are available, how to access them and how to use the results. A training unit should be established in the CSA that will run regular programmes for users, including the media, on how to access and use the NSS databases. This would include training in the most widely used survey analysis package, 'Stata' or 'SPSS'. In the first instance, this training would be for the major surveys and censuses, but could be gradually developed as the CSA data archives are expanded. This is to improve knowledge and utilisation of the existing data.

275. The CSA currently undertakes too little analysis of its own data. Much of its work is limited to data collection and tabulation. The CSA's publications need to be made more readable and accessible to users, by telling the story that is found in the data. To do this, a greater use of analytical techniques will be required. The lack of internal analysis of data has also some important quality limitations. If the statisticians do not use their own data, they are less likely to see and resolve data problems and inconsistencies.

276. Modelling techniques are required to obtain statistical estimates and projections in a number of sectors. At present, the CSA carry out very little of this. The exact division of labour between the CSA and MoFED should be set out in the future MoU. However, all statistical offices engage in modelling work. For example, estimates of industries that are hard to measure have to be modelled, as direct data collection is not possible, an obvious example of this being the construction sector. In the area of social statistics, small area estimates can be modelled for poverty and for a number of social indicators. Population projections are also an example of the need for modelling expertise inside the CSA. Training in modelling techniques for the CSA and NSS partners is required.

277. For a full understanding of specific needs in each partner of the NSS, a training needs analysis is required. This should be used to develop a training strategy for the entire NSS. Currently, the exact numbers of staff working in statistics in the NSS is not known, and the unmet need is not yet determined. A study that establishes the number, skills and training requirements for staff in statistics (including ICT staff) is urgently required to strengthen the capacity of the NSS. The training needs analysis will be the foundation of the training strategy, which will set out in-service training needs for the NSS; establish the demand in the NSS for statisticians and associated professionals; and determine the national statistical training programme. The new training unit to be established in the CSA may satisfy some of the training

needs, but external providers will need to be found for the majority of training needs. The programme should cover the need to maintain a supply of qualified staff in the country to meet the demand.

CHAPTER X

PLAN IMPLEMENTATION

10.1 Change management processes and performance management

278. The business process reengineering exercise is to start shortly in the CSA. The NSDS provides input into this process.

10.1.1 Integrated data collection across subject-matter boundaries

279. One of the major changes anticipated by the CSA is a more integrated approach to data collection. Due to historical reasons, many departments in the CSA have run their own surveys. This has sometimes led to a duplication of content and to loss of efficiency in managing the survey process. Each survey has its set-up and management costs and the more that survey instruments can be harmonised across subject-matter barriers the more efficient the survey activities will be. An example of this is the economic activities of households. Informal sector activities are household based, and require a household survey; other approaches tend to underestimate seriously the size of the informal sector. In addition, many agricultural households engage in small businesses, in addition to farming. High value cash crops, such as spices and vegetables, are best captured as part of a household budget survey. To capture the dynamism and interaction of household economic activity, the modern trend is to use a more integrated approach to surveys, capturing all the households' income-earning activities, not just the main one. Social surveys will also need to serve the needs of economic statistics. The CSA structure could be reviewed once again in the BPR, in line with this NSDS requirement.

10.1.2 Quality assurance and coordination of the NSS

280. A new activity that the CSA will undertake during the plan period is quality assessment of all official statistics on a planned timetable, and coordination of statistics across the various producers. This will involve changes in the structure of the CSA organisation. To cope with the new challenges, an NSS and quality unit will need to be established, which contains the necessary legal and statistical expertise to deal with relationships with statistical producers across the Government. This unit will be responsible for:

- agreeing memoranda of understanding between government agencies;
- establishing the legal precedence for the various acts and laws which apply to the collection and sharing of data in NSS partner ministries and agencies;
- drawing up and making recommendations for proclamations on official statistics;
- agreeing relations between the NSS partners;
- managing the conduct of statistical quality assessments and issuing the results; and
- agreeing the statistical outputs from the NSS partners on an annual basis.

281. The unit should be placed at a senior level in the CSA, ideally reporting to one of the Deputy Director Generals. This is because the unit should have sufficient authority over other Government Departments and over the subject matter branches within the CSA.

282. The unit will need to co-opt experts in the subject-matter areas that are to be quality assessed, both from ministries and from research agencies and academia. This external expert content to the review process is expected to increase the autonomy of the assessment, and, even more importantly, enhance the public's perception of the neutrality and quality of official statistics in Ethiopia.

10.1.3 User-producer relations and statistical advocacy

283. The NSDS process highlighted a number of weaknesses in the relations between users and producers in the country. Many users requested new information that is, in fact, already available, and also expressed quality concerns relating to accessibility, periodicity and access to statistics. This suggests that the CSA's user relationships should be strengthened.

284. The current structure of the CSA (see box 2) includes a small public relations department in the office of the Director General. The purpose of statistics is to make them available to users, and this function is a very important one that will require significant strengthening in the plan period.

285. All major statistical releases will require a press conference to publicise and explain the meaning of the results. This means that the expert statistician must be prepared to meet the press and to explain the findings. While the press officer is an invaluable part of the process, he/she cannot provide the background and technical content to explain all the figures. The statistical experts must therefore be trained in press relations and be expected to not only focus on printed publications, but also ensure that publications are simultaneously available on the website.

286. Publications can only provide some of the main analyses and tabulations. Most users have their own very specific needs that can best be catered for by enabling web access of microdata. To enhance the users' capacity to make the best use of data, and to promote results management throughout the Government, user analytical training is required. A training room or facility and trainers will be required, together with subject matter experts to explain and assist users to find their way around the databases.

287. One common complaint from users was that results were not presented as time series. Good practice in European statistical agencies is to present results as time series. This ensures that users are able to look across changes in series across time, and is essential for the monitoring and evaluation systems in the country. Additional resources will be required to convert the many official statistical publications into time series and to make these available on the website and as publications.

288. The CSA has many publications that are out of print. Some of these are the latest collections available. Efforts should be made to capture these electronically and to put them on the website.

289. The website will require significant strengthening and development to enable other statistical producers to post their results on the CSA website, together with metadata and analytical reports. NSS producers will require support from the CSA to do this, as the ICT and statistical capacity is extremely limited in most units.

290. Finally, user-producer relations have largely been restricted to workshops about questionnaires in the past. Their success was limited. Regular annual user-producer meetings are recommended with broader subject matter content. The meetings should discuss data needs and quality concerns. To provide content for discussion and debate, it is recommended that the workshops should be preceded by a survey of the major user organisations and individuals who have contacted the CSA for information over the year.

10.1.4 Performance management

291. Performance management should be introduced as part of the annual programme. The NSDS contains a number of performance targets, which should be extended once the work programme for the year is agreed. These targets should be monitored on a six-monthly basis and the results provided annually to the Statistics Council and served as a report to external donor partners.

292. One initiative that should be introduced urgently is a release calendar for the NSS. This will provide users with a clear indication of what statistics will be available and when. It is a good practice observed by GDDS members, and makes public key performance targets.

293. The review of the previous Medium Term Statistical Programme was a useful preparatory exercise for the NSDS and is an essential planning tool that will be required to run an efficient and effective NSS.

294. Individual performance management can be introduced for teams and individuals. While the rewards for good performance are often weak in the public sector, this could form the basis for promotion or training in the future. A performance system also exposes some of the weaknesses in annual planning cycles, as it must match the programme to the available human resources. It can enable management to identify capacity bottlenecks at an early stage and to take remedial action.

10.2 Human resources and training strategy

10.2.1 Needs for the NSS

295. Some information has been gathered on the statistical capacity of NSS partners (see Table 3.6). This information is not exhaustive, and more should be added as part of the NSDS implementation process. Only some ministries have statistical units, which should be remedied to ensure that statistical units can be covered by the Statistics Law and the data protected. Statistical units should be established in all NSS partners and the capacities of the units reviewed.

296. The ICT staff available to support statistical production in ministries is very limited. Problems were reported in attracting and keeping staff, and the entry requirements for years of service were thought to be very unrealistic as ICT staff were in high demand by private companies, NGOs and donor agencies.

297. One alternative might be to use private sector agencies to support ICT functions in ministries, but a careful review is needed to study the relative benefits and costs of raising salaries for in-house staff or contracting in expertise.

298. Statistical staff are also in demand, and turnover of staff in the NSS should be monitored and a case put to government for raising the salaries and reviewing the staffing procedures for professionals in high demand in the economy.

10.2.2 Training for the NSS

299. Opportunities for training and advancement provide a strong incentive to staff to stay in the government service. The training section of the NSDS should be strengthened and a statistical training needs analysis conducted for the CSA and the NSS statistical units. The results of the training needs analysis should form an input into a new training strategy for the NSS. Training institutions and the CSA may be required to deliver training.

10.2.3 Retaining institutional knowledge

300. With high turnover, it is essential that the knowledge of individuals be transferred to the statistical institution. This should be done in several ways:

- Senior staff should ensure that on-the-job training is given to more junior team members. This should be institutionalised and time scheduled for training. Training rooms should be provided for this purpose.
- The value chain process for the production of each collection and system should be fully documented and available to all. The documents should not be static but updated and reviewed on a quality basis. This will ensure that knowledge is not lost. This activity must be built into work programmes and form part of the performance assessment process.

10.3 Summary of the work programme (2009/10–2013/14)

301. The work programme summary is attached as Annex B.

10.4 Summary of the capacity building programme (2009/10–2013/14)

302. The capacity-building programme will be supported by the BPR and by international and local technical assistance. Some of the technical assistance needs have already been agreed by development partners and the CSA. In summary, the needs are presented in Table 10.1:

Table 10.1 Proposed NSDS budget in Ethiopia Birr for the year 2009/10 – 2013/14

Activities	Budget Year										Grand Total by Source		
	2009/2010		2010/2011		2011/2012		2012/2013		2013/2014				
	Gov.	Donor	Gov.	Donor	Gov.	Donor	Gov.	Donor	Gov.	Donor	Total	Gov.	Donor
Theme 2													
2.1 DQAF-E Quality Assessment	-	300,000	-	500,000	-	500,000	-	500,000	-	500,000	2,000,000	-	2,300,000
Theme 3													
3.3 Users trained in Microdata	-	-	60,000	-	66,000	-	72,600	-	79,860	-	278,460	278,460	-
3.4 Annual consultations and surveys of users	60,000	-	66,000	-	72,600	-	79,860	-	87,846	-	366,306	366,306	-
Theme 4													
4.1 Implement HICE	117,500	2,167,815	7,256,933	14,320,831	467,632	2,642,500	-	-	-	-	26,973,211	7,842,065	19,131,146
4.1 Implement WMS	192,500	25,408,700	15,582,515	22,795,003	4,489,148	4,527,802	-	-	-	-	72,995,668	20,264,163	52,731,505
4.1 Implement DHS	-	-	-	8,000,000	-	-	-	-	-	-	8,000,000	-	8,000,000
4.1 Five yrs Labour Force Survey	-	-	-	-	-	-	4,919,308	4,919,307	-	-	9,838,615	4,919,308	4,919,307
4.1 Employment - Unemployment survey	400,000	-	440,000	-	484,000	-	-	-	532,400	-	1,856,400	1,856,400	-
4.1 Time Use Survey (Pilot)									200,000	200,000	400,000	200,000	200,000
4.2 Surveys in Agricultural and Price Statistics *													
(Rural Integrated Statistics)	45,000,000	-	49,500,000	-	54,450,000	-	59,895,000	-	1,700,000	-	210,545,000	210,545,000	-
4.2 Crop Production Forecast Surveys													
4.2 Crop Production Survey for Long Rainy Season													
4.2 Crop Production Survey for Short Rainy Season													
4.2 Land Utilization Survey Conducted													
4.2 Farm Management Survey Conducted													
4.2 Livestock Survey Conducted													
4.2 Survey of Large and Medium Scale Farms													
4.2 Socio- economic Survey of Pastoral Areas	-	-	3,396,200	3,396,200	-	-	-	-	-	-	6,792,400	3,396,200	3,396,200
4.2 Environmental Statistics New Series Published	-	-	-	-	100,000	-	110,000	-	121,000	-	331,000	331,000	-
4.2 Natural Resources and Wildlife Survey	-	-	-	-	-	-	2,500,000	2,500,000	-	-	5,000,000	2,500,000	2,500,000
4.2 Agricultural Census Conducted	-	-	-	-	13,021,072	63,609,648	13,021,072	31,804,824	229,892,160	31,804,824	383,153,600	255,934,304	127,219,296
4.4 Census of Business Enterprises	5,500,000	5,500,000	100,000	-	110,000	-	121,000	-	133,100	-	11,464,100	5,964,100	5,500,000
4.5 Manufacturing and all Other Business Survey	2,013,788	884,812	2,303,648	884,812	2,622,494	884,812	2,973,225	884,812	3,359,028	884,812	17,696,243	13,272,182	4,424,060
4.5 ICT Module in Large Enterprise Survey	-	-	100,000	-	110,000	-	121,000	-	133,100	-	464,100	464,100	-
4.5 Survey of Producers' Prices of Manufactured Items													
	400,000	-	440,000	-	484,000	-	532,400	-	585,640	-	2,442,040	2,442,040	

* The Budget on Year 5 (2013/14) is to undertake only price statistics

NSDS Budget Cont Activities	Budget Year										Grand Total by Source		
	2009/2010		2010/2011		2011/2012		2012/2013		2013/2014				
	Gov.	Donor	Gov.	Donor	Gov.	Donor	Gov.	Donor	Gov.	Donor	Total	Gov.	Donor
Theme 4													
4.5 Construction Company Survey	500,000	-	550,000	-	605,000	-	665,500	-	732,050	-	3,052,550	3,052,550	-
4.6 Various Population Census Activities and Projection	-	18,548,140	-	11,029,090	-	-	-	-	-	-	29,577,230	-	29,577,230
4.6 Inter-censal Demographic Survey	-	-	-	-	-	-	-	-	25,409,175	-	25,409,175	25,409,175	-
4.6 Review and Improve Vital Registration**	-	-	8,100,000	-	8,910,000	-	9,801,000	-	10,781,100	-	37,592,100	37,592,100	-
4.6 Arrival & Departure Information (Tourism Statistics)	400,000	-	150,000	-	150,000	-	150,000	-	150,000	-	1,000,000	1,000,000	-
Theme 5													
5.1 Train Users in Data Analysis	-	-	160,000	-	176,000	-	193,600	-	212,960	-	742,560	742,560	-
5.3 Develop an In-service Statistics Training Programme for Various Sectors	-	-	-	-	11,100	-	12,210	-	13,431	-	36,741	36,741	-
5.5 Upgrade CSA Website	250,000	-	-	-	-	-	250,000	-	-	-	500,000	500,000	-
5.5 Network all CSA Regional Offices	-	817,640	-	-	-	420,000	-	-	-	420,000	1,657,640	-	1,657,640
5.5 Test and Introduce Data Capture and Editing in Field	-	-		150,000	-	-	-	-	-	-	150,000		
5.5 Test and Introduce Telephone Interviewing of Enterprises	-	-	100,000	300,000	100,000	300,000	-	-	-	-	800,000	200,000	600,000
5.5 Strengthening GIS Infrastructure and GIS Analysis													
Capability at the CSA		1,000,000				1,000,000				1,000,000	3,000,000		3,000,000
5.5 Strengthening GIS Utilization at Regional Level				500,000				500,000			1,000,000		1,000,000
5.5 Investigate and Install Better Software for													
On-line Microdata Access	120,000	-	-	-	120,000	-	-	-	120,000	-	360,000	360,000	-
5.6 Construct New Statistics House***	15,000,000	-	15,000,000	10,000,000	10,000,000	10,000,000	-	-	-	-	60,000,000	40,000,000	20,000,000
Theme 6													
6.2 Review NSDS in Light of New M&E Needs	-	-	200,000	-	220,000	-	242,000	-	266,200	-	928,200	928,200	-
6.3 Design and Implement BPR	30,000	-	70,000	-	-	-	-	-	-	-	100,000	100,000	-
Total	69,983,788	54,627,107	103,575,296	71,875,936	96,769,046	83,884,762	95,659,775	41,108,943	274,509,050	34,809,636	926,603,339	640,796,954	286,006,384

Note- This budget excludes the cost of data collection, compilation and analysis of administrative records by sectoral organizations.

** The Budget for improving and establishing vital registration system will be allocated by Regional States and CSA.

*** The Budget for constructing the new statistical hose will be allocated and disbursed through Ministry of Works and Urban Development.

10.5 Budget and financial strategy

Table 10.2 Capacity building programme

Strategic theme	Technical need	Year
1.1	Development of MoUs and legal issues for the NSS	1-2
2.1	Development of an Ethiopian statistical quality-assessment framework	1-2
3.2	Training in press releases and launches for statistical staff in NSS	1-3
3.3	Training in microdata use	2
4.1	Small area modelling and poverty estimation	1
4.1	Support for redesign of HICE/WMS	1-3
4.1/4.5	TA to support the design of annual livelihood/informal sector survey programme	2
4.2	Support for methodology design for environmental statistics	2-5
4.4	Support for developing a new business register	1-3
4.5	Support and training in modelling techniques for difficult industries	1 -2
	Support in designing and carry out surveys of complex surveys	1-3
4.6	Technical assistance on design of 5-yearly population projections updating	1-2
5.1	Training on sector modelling techniques	3-5
5.2	Support for conducting a training needs assessment	1
5.3	Development of in-service training programme	2-5
5.3	Training rooms, equipment and materials	2-5
5.4	Support for the introduction of performance monitoring	1-2
5.5	Support in testing and piloting CATI and ULPCs for data capture and editing	2-5
5.5	Improved software and hardware for the web and server	1-5
5.5	UMPCs and CATI equipment	2 3
5.5	Network equipment to link up regional offices	1-5

10.6 Monitoring and evaluation

305. The NSDS will require annual monitoring to ensure its achievement. The monitoring should use the M&E framework agreed. An annual report should be prepared on the status of the NSS for the Council and development partners, as a means of avoiding numerous parallel reporting systems, and supporting statistical governance by the Ethiopian authorities.

306. The M&E framework is included in Annex C.

10.7 Way forward

307. The NSDS should be fully discussed with all the partners, agreed and endorsed by the Statistics Council and the Minister.

308. Support for capacity building should be sought from development partners in accordance with the strategy, and should observe Paris Declaration principles.

309. As the coordination of the National Statistical System is a new activity in Ethiopia, the needs of the various NSS partners and their respective programme of surveys and outputs will need to be agreed and included in the detailed work programmes for the next five years. These should be reviewed on an annual rolling basis.

310. The data quality assessment and coordination of the NSS will be substantive pieces of work, as will the adoption of proposed new technologies and methodologies. The programme of data collection should be minimised in the first two years of the programme to enable the staff and management to put in place their change strategy, and to maximise the benefit that will be obtained in future years. In addition, the training of users and producers should enable much more benefit to be derived from what already exists.

311. The expanded and integrated website will enable users to discover more about what is available and what analyses have already been carried out.

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ANNEX A LIST OF NSS MEMBERS

1. Addis Ababa University
2. Bureau of Workers and Urban Development (Oromia)
3. Central Statistical Agency
4. Ethiopian Revenue and Customs Authority
5. EARO
6. Economic Association of Ethiopia
7. Environmental Protection Authority
8. Ethiopian Mapping Agency
9. Ethiopian Civil Service College
10. Ethiopian Electric and Power Corporation
11. Ethiopian Health and Nutrition Research Institute
12. Ethiopian Micro-Finance Association
13. Ethiopian Roads Authority
14. Federal Civil Service Agency
15. Federal Micro and Small Enterprises Agency
16. Federal Police Commission
17. Government Houses Agency
18. Higher Education Relevance and Quality Agency
19. HIV/AIDS Prevention and Control Office
20. Information and Communications Technology Development Agency (ICTDA)

21. Ministry of Culture and Tourism
22. Ministry of Education
23. Ministry of Federal Affairs
24. Ministry of Finance and Economic Development
25. Ministry of Health
26. Ministry of Justice
27. Ministry of Labour and Social Affairs
28. Ministry of Mines and Energy
29. Ministry of Trade and Industry
30. Ministry of Transport and Communications
31. Ministry of Water Resources
32. Ministry of Women's Affairs
33. Ministry of Works and Urban Development
34. Ministry of Youth and Sport
35. MOARD
36. National Bank of Ethiopia
37. Oromia Trade, Industry and Transport Bureau
38. Oromia Finance and Economic Development Bureau
39. Regional Finance and Economic Development Bureaux
40. Social Security Agency

ANNEX B WORK PROGRAMME

Summary NSDS Work Programme

Strategic Themes		2009/10	2010/11	2011/12	2012/13	2013/14
Theme 1 Implementation of the Statistics Law						
1,1	NSS Quality & Support Unit established in CSA					
1,1	Common standards & definitions for the NSS agreed					
1,1	Preparation of a proclamation					
1,2	Memorandum of Understanding between CSA and NSS partners signed					
1,3	Donor coordination committee for the NSS established					
1,3	Donor meeting held with CSA quarterly -support given to NSDS not beyond					
Theme 2 Developing data quality procedures						
2,1	Development and approval of DQAF-E					
2,1	First collection Data quality assessed					
2,1	DQAF-E quality assessment schedule agreed & staff trained					
2,1	DQAF-E quality assessment at 3 per year					
2,2	Statistical units established in NSS partners					
2,2	Liaison expert for each NSS partner established in CSA					
2,2	NSS Statistical Units' heads' meeting held each year					
2,2	Annual NSS partner work programme agreed & published each year					
2,3	NSS Quality and Support unit established in CSA					
Theme 3: Enhancing advocacy and use of statistics						
3,1	Shared website for the NSS and CSA hosted by CSA					
3,1	NSS and CSA data presented as time series					
3,1	Analytical reports posted on website					
3,2	Data releases accompanied by press meetings					
3,2	Advance calendar of NSS data releases posted on web					
3,3	Training officer appointed in CSA					
3,3	Users trained in microdata					
3,4	Annual consultations and surveys of users					
Theme 4: Methodological improvements & statistical modernisation						
4,1	Obtain TA on small area modelling & poverty mapping					
4,1	Design HIES & WMS to suit modelling needs					
4,1	Review Hhd survey content to meet top priorities & eliminate duplication					
4,1	Investigate ability of MIS to provide small area data					
4,1	Design master sample from Population Census					
4,1	Investigate use of UMPCs					
4,1	Implement HICE & WMS					
4,1	Implement DHS					
4,1	Design annual household Livelihood Survey (urban & rural + 4.5 needs) TA					
4,1	Implement annual Livelihood Survey					
4,1	5 yearly Labour Force Survey redesigned & implemented					
4,1	Gender statistics publication supported and published					
4,1	Time Use Survey (Pilot)					
4,2	Obtain technical assistance to improve agricultural data collection					
4,2	Improve methodology & coordination with Min Agriculture collections					
4,2	Crop production forecast surveys conducted					
4,2	Crop production survey for long rainy season conducted					
4,2	Crop production survey for short rainy season conducted					
4,2	Land utilisation survey conducted					
4,2	Farm management survey conducted					
4,2	Frame for large scale and commercial farms improved					
4,2	Survey of large and medium scale farms conducted					
4,2	Survey of pastoral areas conducted					
4,2	Satellite imagery of country commissioned					
4,2	New methodology for environmental statistics sought					
4,2	Environmental statistics new series published					
4,2	Natural resources and wildlife survey					
4,3	Carry out an agricultural census					
4,3	Use the agricultural census to select samples of special interest					
4,4	Also see 4.1					
4,4	Investigate integrating survey programme					

Summary NSDS Work Programme

Strategic Themes

- 4.5 Improve business register and integrate data sources
- 4.5 Obtaining the laws and regulations covering each register.
- 4.5 Obtaining computerised copies of the register to compare
- 4.5 Develop automatic or manual procedures to weed out duplicates
- 4.5 Develop bridge tables to reclassify the register entries to ISIC.
- 4.5 Develop register 'proving' instrument to capture information not in source
- 4.5 Setting up a system for regular updating and proving of the register.
- 4.5 Maintain business register

- 4.6 Develop techniques for sampling and modelling difficult industries
- 4.6 Review alluvial gold, small scale & trade ind sector surveys in hhd survey
- 4.6 Periodic inclusion of each of above in household surveys
- 4.6 Develop import and export indices
- 4.6 Collect and publish import and export indices
- 4.6 Medium and large scale manufacturing industries survey
- 4.6 Gradually expand to cover large businesses in other industries
- 4.6 Include ICT Module in large enterprise survey
- 4.6 Include energy and water consumption module in large enterprise survey
- 4.6 Survey of producers' prices of manufactured items
- 4.6 Review process for integrating informal sector survey with hhd survey
- 4.6 Construction company survey - review method
- 4.6 Construction company survey - conduct and model estimates
- 4.6 Compilation of foreign trade estimates
- 4.6 Compilation of transport & communications statistics
- 4.6 Produce Industry output estimates for MoFED

- 4.7 Update population projections
- 4.7 Seek TA for updating population projections 5 yearly
- 4.7 Review and improve vital registration
- 4.7 Improve content and processing of international arrival/departure cards
- 4.7 Process and publish arrival & departure information

[illegible]

Theme 5: Capacity developments in the NSS

- 5.1 CSA to model output from each sector on an annual basis
- 5.1 Train users in data analysis
- 5.2 Carry out a training needs assessment in CSA and NSS stats units
- 5.2 Investigate recruitment & turnover of staff in statistics units
- 5.2 Submit recommendations for improving staff retention to Council
- 5.3 Appoint a training officer in CSA
- 5.3 Develop an in-service training programme for government statisticians
- 5.3 Establish a knowledge management system and update quarterly
- 5.3 Publish all metadata for official statistics
- 5.3 Establish and maintain full catalogue of NSS official statistics
- 5.4 Include a review of possible annual performance monitoring in BPR
- 5.4 Develop an annual work programme with SMART indicators
- 5.4 Annual Performance Report on the statistical system for Council /donors
- 5.4 Develop the Statistical Association to reinforce statistical values for NSS
- 5.5 Upgrade CSA website
- 5.5 Network all CSA regional offices
- 5.5 Test and introduce data capture and editing in field
- 5.5 Test and introduce telephone interviewing of enterprises
- 5.5 5 yearly satellite imagery of the country
- 5.5 Investigate and install better software for on-line micro data access
- 5.6 Start work on building improvements or new offices

[illegible]

Theme 6: Relationship to Monitoring and Evaluation of PASDEP and other interventions

- 6.1 Agree and issue proclamation on special surveys to Government MDAs
- 6.2 Review NSDS and work programmes in light of new M & E needs
- 6.3 Provide quality assurance for M & E surveys

Age Group	Total	Male	Female	Male	Female
18-24	~15%	~15%	~15%	~15%	~15%
25-34	~15%	~15%	~15%	~15%	~15%
35-44	~15%	~15%	~15%	~15%	~15%
45-54	~15%	~15%	~15%	~15%	~15%
55-64	~15%	~15%	~15%	~15%	~15%
65+	~15%	~15%	~15%	~15%	~15%

ANNEX C MONITORING AND EVALUATION OF THE NSDS

	Summary NSDS Work Programme Strategic Themes	Performance indicators	Timing
Theme 1	Implementation of the Statistics Law	Implementation of the Statistics Law	
1,1	NSS Quality & Support Unit established in CSA	Unit established	End yr1
1,1	Common standards	Annual publication: Standards & Definitions	Annually
1,1	Preparation of a proclamation	Proclamation issued	End yr2
1,2	Memorandum of Understanding between CSA and NSS partners signed	5 MOUs per year agreed	5 per year
1,3	Donor coordination committee for the NSS established	Donor committee established	End yr1
1,3	Donor meeting held with CSA quarterly	Minutes of donor meetings quarterly	
Theme 2	Developing data quality procedures	Developing data quality procedures	
2,1	Development and approval of DQAF-E	DQAF-E agreed & published	End yr 2
2,1	First collection data quality assessed	DQAF-E tested & results available	End yr 2
2,1	DQAF-E quality assessment schedule agreed & staff trained	Schedule agreed & published	End yr 2
2,1	DQAF-E quality assessment at 3 per year	Results of 3 assessments published	Annually
2,2	Statistical units established in NSS partners	As MoUs agreed	5 per year
2,2	Liaison expert for each NSS partner established in CSA	As MoUs agreed	5 per year
2,2	Meeting of NSS Statistical Units heads held each year	Minutes of meeting	Annually
2,2	Annual NSS partner work programme agreed & published each year	NSS programme published	Annually
2,2	NSS Quality and Support unit established in CSA	Unit staffed and established	End yr 1
Theme 3	Enhancing advocacy and use of statistics	Enhancing advocacy and use of statistics	
3,1	Shared website for the NSS and CSA hosted by CSA	Improved website-NSS data & metadata	End yr 1
3,1	NSS and CSA data presented as time series	ETHIO-DEV or similar running on website	End yr 3
3,1	Analytical reports posted on website	Analytical reports on official statistics posted	Annually
3,2	Data releases accompanied by press meetings	Press meetings held with briefing notes	Each release
3,2	Advance calendar of NSS data releases posted on web	Advance release calendar updated	Quarterly
3,3	Training officer appointed in CSA	Training officer in post	End yr 2
3,3	Users trained in micro data	4 workshops per year	Annually
3,4	Annual consultations and surveys of users	Report of survey and workshop	End yr 1
Theme 4	Methodological improvements & statistical modernization	Methodological improvements & statistical modernization	
4,1	Obtain TA on small area modeling & poverty mapping	Report available	End year 1
4,1	Design HIES & WMS to suit modeling needs	Instruments redesigned	End year 1
4,1	Review Hhd survey content to meet top priorities & eliminate duplication	New methodology agreed & TA reports	End year 1
4,1	Investigate ability of MIS to provide small area data	Report available	End year 1
4,1	Design master sample from population Census	Master sample available	End year 1
4,1	Investigate use of ULPC	Report available & ULPCs tested	End year 1
4,1	Implement HICE & WMS	Survey reports released	End year 3
4,1	Implement DHS	Survey report released	End year 4
4,1	Design annual household Livelihood Survey (urban + 4.5 needs)	New methodology agreed & TA reports	End year 2
4,1	Implement annual Livelihood Survey	Annual reports available	From end year 3
4,1	5 yearly Labour Force Survey redesigned & implemented	New survey designed and report available	End year 5
4,1	Gender statistics publication supported and published	Report available	End year 2
4,2	Obtain technical assistance to improve agricultural data collection	Report from TA available & method tested	End year 1
4,2	Improve methodology & coordination with Min Agriculture collections	Methodology agreed & staff trained	End year 2
4,2	Crop production forecast surveys conducted	Report released	Annually
4,2	Crop production survey for long rainy season conducted	Report released	Annually
4,2	Crop production survey for short rainy season conducted	Report released	Annually
4,2	Land utilization survey conducted	Report released	Annually
4,2	Farm management survey conducted	Report released	Annually
4,2	Frame for large scale and commercial farms improved	New frame available	End year 1
4,2	Survey of large scale and medium scale farms conducted	Report released	Annually
4,2	Survey of pastoral areas conducted	Report released	End year 2
4,2	Satellite imagery of country commissioned	Satellite image with E-MAP	End year 3
4,2	New methodology for environmental statistics sought	Methodology agreed & published	End year 2
4,2	Environmental statistics new series published	New statistical release	End year 3
4,2	Natural resources and wildlife survey	Publication released	End year 4
4,3	Carry out an agricultural census	Report released	End of year 5
4,3	Use the agricultural census to select samples of special interest	Specialist agricultural samples drawn	End of year 5
4,4	Also see 4.1		
4,4	Investigate integrating survey programme	Report available	End year 1
4,5	Improve business register and integrate data sources	Report on available data sources	End year 1
4,5	Obtain the laws and regulations covering each register	Laws obtained and problems resolved	End year 1
4,5	Obtain computerized copies of the register to compare	Computerized copies available in CSA	End year 1
4,5	Develop automatic or manual procedures to weed out duplicates	Procedures programmed and methodology rep	End year 1
4,5	Develop bridge tables to reclassify the register entries to ISIC	Bridge tables available	End year 1
4,5	Develop register 'proving' instrument to capture information not in source	Proving instrument agreed and tested	End year 1
4,5	Set up a system for regular updating and proving of the register	System developed and report on methods	End year 1
4,5	Maintain business register	Annual update of register available for use	End year 1

	Summary NSDS Work Programme Strategic Themes	Performance indicators	Timing
4,6	Develop techniques for sampling and modeling difficult industries	Sampling and modeling report agreed	End year 2
4,6	Review alluvial gold, small scale & trade ind. sector surveys in hhd survey	Content of household surveys agreed	End year 2
4,6	Periodic inclusion of each of above in household surveys	Annual survey report on sector published	Annual from year 2
4,6	Develop import and export indices	Export and import method agreed	End year 1
4,6	Collect and publish import and export indices	Prices publication released	Annual from year 2
4,6	Medium and large scale manufacturing industries survey	Annual survey report published	Annual
4,6	Gradually expand to cover large businesses in other industries	Report expanded to large industries	Annual from year 2
4,6	Include ICT Module in large enterprise survey	Report on ICT use	End year 2
4,6	Include energy and water consumption module in large enterprise survey	Report on energy & water	End year 3
4,6	Survey of producers' prices of manufactured items	Producers price index released	Quarterly
4,6	Review process for integrating informal sector survey with hhd survey	Methodology and content agreed in report	End year 1
4,6	Construction company survey - review method	Methodology agreed & published	End year 1
4,6	Construction company survey - conduct and model estimates	Construction estimates released	Annual from year 2
4,6	Compile foreign trade estimates	Foreign trade estimates released	Annual
4,6	Compile transport & communications statistics	Transport & communication estimates released	Annual
4,6	Produce industry output estimates for MoFED	Industry output estimates passed to MoFED	Annual from year 2
4,7	Update population projections	Projections released	End year 1
4,7	Seek TA for updating population projections 5 Yearly	TA report available	End year 3
4,7	Review and improve vital registration	Pending law change-annual report	Annual from year 3
4,7	Improve content and processing of international arrival/departure cards	New cards in use	End year 2
4,7	Process and publish arrival & departure information	International migration statistics published	Annual from year 3
Theme 5. Capacity developments in the NSS		Capacity developments in the NSS	
5,1	CSA to model output each sector on an annual basis	TA report on modeling	End year 2
5,1	Train users in data analysis	4 workshops per year	From year 2
5,2	Carry out a training needs assessment CSA and NSS statistics units	Training needs report	End year 1
5,2	Investigate recruitment & turnover of staff in statistics units	Retention report available	End year 1
5,2	Submit recommendations for improving staff retention to Council	Paper submitted to Council on staff retention	End year 1
5,3	Appoint a training officer in CSA	Training officer appointed	End year 2
5,3	Develop an in-service training programme for government statisticians	In-service training programme report agreed	Annual from year 2
5,3	Establish a knowledge management system and update quarterly	Knowledge management reports on systems	Quarterly from year 2
5,3	Publish all metadata for official statistics	Current metadata on CSA website	Annual from year 2
5,3	Establish and maintain full catalogue of NSS official statistics	Catalogue of NSS publications available on web	Quarterly
5,4	Include a review of possible annual performance monitoring in BPR	Report on performance management with CSA	End year 1
5,4	Develop an annual work programme with SMART indicators	Annual work programme with indicators	Beginning each year
5,4	Annual Performance Report on the statistical system for Council/donors	Report available after 3 months year end	Annual
5,4	Develop the Statistical Association to reinforce statistical values for NSS	NSS section for Stats Assoc agreed & meets	Annual
5,5	Upgrade CSA website		End year 1
5,5	Network all CSA regional offices	All regional offices networked with CSA	End year 2
5,5	Test and introduce data capture and editing in field	Tested and decision made	End year 2
5,5	Test and introduce telephone interviewing of enterprises	Tested and decision made	End year 2
5,5	5 yearly satellite imagery of the country	National satellite images with EMAP	End year 3
5,5	Investigate and install better software for on-line micro data access	TA sought and software installed	End year 1
5,6	Start work on building improvements or new offices	Buildings ready for occupation	End of year 4
Theme 6. Relationship to Monitoring and Evaluation of PASDEP and other interventions			
6,1	Agree and issue proclamation on special surveys to Government MDAs	Sent to all MDAs	End year 1
6,2	Review NSDS and work programmes in light of new M & E needs	NSDS reviewed	Annually
6,3	Provide quality assurance for M & E surveys	Surveys scrutinized and assured	Ad hoc