Coverage of agricultural and rural sectors and Statistical coordination, training and governance in National Statistical Development Strategy (NSDS) in Ethiopia

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1. **Coverage of agricultural and rural sectors in the national strategy for the development of statistics (NSDS) in Ethiopia**

The National Statistical Development Strategy (NSDS) is designed and the national statistical council is organized to follow up the NSDS. The NSDS has incorporated different issues which will help to improve agricultural data.
Agriculture is the dominant sector in Ethiopia. Agriculture contributes about 50 % to the over all GDP, generates 90% of export earnings and supplies about 70 % of countries raw materials to the secondary activities.

The current agriculture crop surveys conducted by CSA include:

- Crop forecasting – this includes area, production and yield of major temporary crops from peasant holdings (Meher season), weather conditions, availability of agriculture 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 practice- area under agriculture inputs, area under irrigation, amount and cost of inputs by type, number of farmers using particular management practices
- Land utilization – data on area under different land uses (arable, fallow, grazing, woodland, etc.) for private peasant holdings for the meher season, land utilization.

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 number of agricultural holdings reporting livestock and poultry.

1.1 Data needs in Agriculture

The new data needs in agriculture and environment area obtained from the result of stakeholders in the NSDS are

- 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

The nature of the need are

- Introducing GPS measurement
- Changing from a list frame to an Area frame
- Standardizing CSA and MOARD methods
- Improving coverage and quality of commercial farm's estimates using satellite and GPS
- CSA survey to include detail on improvements such as irrigation, terracing, soil conservation
- Improving forecasting methods by using agro metrological data
- Woreda level data using small area estimation technique
- Coverage of non sedentary population, particularly livestock
- Commercial and state farm production
- Minor crops and vegetables

Accommodating the new data needs in agriculture in the NSDS, the following plans are considered

- Since 1980/81 the CSA has conducted annual crop area and production sample surveys, and been using 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 CSA and BORAD and this has been a challenge for over a decade. Thus, the CSA has a plan to find solutions which will contribute to minimizing the extent of the discrepancies.
- For the past 25 years, the CSA has used a list frame for all socio economic 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
- The ministry of agriculture collects data using its development agents. These agents provide advise to farmers and also collect production estimates from farmers associations which are compiled at wereda level, and passed thorough the various levels of the administration to from national, regional and zonal estimates. The CSA provide training to development agents in September 2008 to try to obtain better standardization of methods, definitions and classifications.
- The user's 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 which is grown in the southern part of the country is a major gap. Forestry and products are also major gaps. Livestock numbers in the non sedentary areas are not collected except 2001/2.
- The agricultural census is intended to be a regular feature of the statistical program, and will be repeated in the NSDS period.
- The CSA will collaborate more closely with MOARD to improve techniques for the surveying of peasant farmers. These will include introducing GPS measurement for land parcels, using area frame and satellite imagery for areas of agricultural production and for

land uses. For this CSA in collaboration with MOARD and EMA is preparing Land Cover Classification for Ethiopia.

- For minor crops and vegetables. A household based approach in both urban and rural contexts is called for
- 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.

1.2 Developments of Strategic themes for agriculture in NSDS

Generally the NSDS has 6 themes. They are :

1. Implementation of the statistical law
2. Develop and implement data quality procedures
3. Enhance advocacy and use of statistics
4. Methodological improvements and statistical modernization
5. Capacity development in the NSS
6. Relate the NSDS to monitoring and evaluation of PASDEP and other interventions

Specific to agriculture, theme 4, which is methodological improvements and statistical modernization states to improve methodology and expand coverage to commercial farms, non sedentary population and to environmental affairs and natural resources and also to continue to undertake agricultural census to maintain the basis for agricultural sampling and to provide periodic robust agricultural estimates.

1.3 Recommendation on the strategic themes

The major recommendations on the strategic theme especially on the agriculture sector are

1. Maintain the annual agricultural surveys but improve methodology by seeking technical assistance and reviewing best practice
2. Agricultural census
3. Coordinate and harmonize data collection with the ministry of agriculture
4. Consider introducing questions in the growing, production and amount sold of vegetable and minor crops in the HICE or its replacement survey
5. Improve the frame of commercial and state farmers (develop stratified by size enterprise survey) and conduct agricultural surveys annually.
6. Develop a methodology for environmental statistics and seek technical assistance on the sector.
7. Develop a methodology for livestock estimation for nomadic populations, seek technical assistance on the most appropriate method of collection
8. There is a plan to change the existing agricultural survey to a rural socio economic survey.
9. Include an agricultural census in the next plan period
10. Use the agricultural census to draw samples for special surveys of new farming activities, techniques or to investigate the out comes of agricultural investments

2. Statistical coordination, training and governance in Ethiopia NSDS

The importance of statistical coordination and capacity building in the national statistics system is also emphasized in the NSDS.

The current statistical law was passed on 20 april2005. The central statistical authority is responsible to the ministry of finance and economic development.

The CSA has two objectives. Firstly to collect process analyze 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 data base creation and proper management of administrative records.

The CSA is reporting to the ministry of finance and economic development. The minister recommends the general manager and deputy general managers to the prime minister who appoints them.

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 chair person and other members comprise government officials from federal regional and city administrations.
The annual work program is prepared by the CSA and submitted to the minister by the director general. The program is then approved by the statistical council.

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. This gives the CSA authority to develop an NSDS and to develop common standards. The CSA's power relay primarily on cooperation between producers in the national statistical system, but may be enforced by proclamation or regulation.
The law does not prescribe the responsibility of other agencies in the NSS; however the CSA does have the authority to 'issue and follow up the implementation of programs and directives with a view to improving the country's statistical system and to avoid duplication of efforts in statistical activities' and to 'design and monitor the implementation of statistical recording and reporting systems to be followed by government agencies or institutions or other organizations'. The council may also 'issue directives on the improvement of the National Statistical System'.

Other government agencies are also obliged to supply information and data to the CSA. This gives a devolved, but rather voluntary flavor to the wider national statistical system. The act in use does not oblige 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 minimized. This is essential to maintaining trust in official statistics among data users.

In the UN fundamental principles of official statistics, principle 8 concerns coordination between statistical producers which is an activity that must be strengthened. Principle 9 suggests that there should be standard concepts, definitions and classifications in place among data producers.

The following are minimum legal provisions that apply to decide whether the particular cell is or should be a member of the statistical system.

1. all members of a statistical system should have a legal basis for their collection operation
2. 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
3. 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
4. the act should contain provisions acknowledging the need for, and definition of, statistical coordination, as well as guide lines on how it is carried out

The CSA is now working on the Business Process Reengineering (BPR). The BPR will consider the UN principles of statistical coordination in describing the new system for the NSS coordination.

Expected quality improvements to the statistics in the country as agreed on the NSDS meeting are

1. Issue directives from the statistical council to improve coordination and to set common standards
2. Introduce new techniques using modern ICT
3. Train producers and users in the NSS
4. Continuous dialog with users of statistics
5. Improved advocacy for the use of statistics
6. Improved timeliness and regularity
7. Improved effectiveness of dissemination

Six strategic themes are designed for the NSDS

1. implementation of the statistical law
2. develop and implement data quality procedures

3. enhance advocacy and use of statistics
4. methodological improvements and statistical coordination
5. capacity developments in the NSS
6. relate NSDS to evaluate PASDEP and other interventions

The recommendations for the strategic themes related to coordination, governance and training are

- Theme 1
    i. The establishment of the a NSS methodological and support unit in the CSA for quality assessment and NSS capacity building
    ii. The development of common standards and definitions for the NSS and the issuance of proclamations
    iii. The introduction of memorandum of understanding between the CSA and its NSS partners
    iv. The coordination of donor relations and statistical initiatives in the NSS
- Theme 2
    i. Developing a data quality assessment frame work for Ethiopia (DQAF-E)
    ii. The development and support of ministerial statistical units in NSS partners
    iii. The strengthening of a NSS coordination, quality assurances, and support unit in the CSA for quality assessment and NSS capacity building
- Theme 3
    i. Developing an appropriate shred website for the NSS
    ii. Improving statistical launch procedures and press releases
    iii. Training for statistical users including the media
    iv. Establishing regular relations with data users and the public in general

- Theme 5
    i. Development of analytical skills in the NSS
    ii. Increasing the supply of statisticians and associated ICT staff
    iii. In-service training and knowledge management in the NSS
    iv. Culture of professionalism and quality in the NSS
    v. Improve technological needs
    vi. Improve the buildings and physical work environment for statistics