

# INTEGRATED SAFEGUARDS DATA SHEET

## IDENTIFICATION / CONCEPT STAGE

**Report No.:**

**Date ISDS Prepared/Updated:** 05-Oct-2016

### I. BASIC INFORMATION

#### A. Basic Project Data

<b>Country:</b>	Ethiopia	<b>Project ID:</b>	P161769
<b>Project Name:</b>	Ethiopia 2017 Population and Housing Census Support		
<b>Team Leader(s):</b>	Anne Margreth Bakilana		
<b>Estimated Date of Approval:</b>			
<b>Managing Unit:</b>	GHN07	<b>Lending Instrument:</b>	IPF
<b>Financing (in USD Million)</b>			
Total Project Cost:	0.5	Total Bank Financing:	0
Financing Gap:	0		
<b>Financing Source</b>			<b>Amount</b>
Trust Fund for Statistical Capacity Building			0.5
<b>Environment Category:</b>	C - Not Required		

#### B. Project Development Objective(s)

The development objective of the requested Grant is to support Ethiopia in the successful implementation of the Population and Housing Census (PHC) planned for 2017. The Grant will support the Central Statistical Agency (CSA) and tUNFPA Population Fund (UNFPA) to implement a newly developed census enumeration methodology that will ensure complete and accurate enumeration of the entire population. The 2017 PHC will collect information on all persons present within the borders of Ethiopia on the census reference date. Unlike the previous census (es) the 2017 PHC will be based on one reference date countrywide.

#### C. Project Description

The Grant would support key activities that must be implemented in preparation of the census. These will include improvements in technology for census cartography and Geography Information Systems (GIS) development which are an essential preparatory activity for the census exercise as the success of any census is critically dependent on the accuracy of the cartographic maps. Accompanying the mapping activities will be training of CSA and other staff in cartographic and GIS methodology.

Data capture under the previous censuses had been done using paper based questionnaires. In planning ahead to the Ethiopia 2017 Census, a mix of technology has been put in place to assure

quality and timely results. For the Ethiopia 2017 Census, hand-held devices will be used for data capture with at least 160,000 devices being required for enumeration alone. These devices will also be used in other downstream census activities, or in other large scale data generation activities at CSA and beyond upon completion of the census program. Furthermore, technologies will be introduced to support the elaborate process involved in delineating an estimated 150,000 to 160,000 census enumeration areas (EAs) countrywide.

The cartographic process will be modeled on the use of mobile GIS technology to ensure complete and accurate coverage of the vast frontiers (1.1m sq. km) and challenging topography of Ethiopia in time for the enumeration. ArcGIS for Windows Mobile software will be used in conjunction with GPS-enabled PDAs (Trimble Juno 3B) to gather GIS-based information for EA maps production. In addition, high resolution satellite imagery (SPOT - 1.5m/6m Pleiades for rural and 50cm for urban areas) will be used to enhance pace and quality of the EA maps production. The cartographic activities will also employ the use of additional Apps (Dashboard & work force manager) installed on the ArcGIS platform to promote effective deployment, task distribution and progress monitoring and reporting.

The main components of the proposed Grant are below:

1. Technical assistance in cartographic and GIS Methodology development

The Ethiopian government has adopted mobile GIS technology for the 2017 Census. However, CSA technical staff have little experience to implement the technology (none of the staff has been involved in the census hitherto). The only exposure they have so far came through study tours GIS staff made to Brazil and Cape Verde. The only formal training on use of PDAs to collect data (with a GIS component) was attended by a couple of CSA staff in South Africa for a week, supported by FAO. This is inadequate and, therefore, cannot support the skill-intensive activities that mobile GIS technology demands.

Accordingly, this activity partly entails the recruitment of a cartographic/GIS specialist who will provide responsive and timely overall technical assistance and oversight on implementation of all census cartography/GIS related activities. The ArcGIS software suite already supplied and being used requires further re-engineering to be fully adapted to CSA's needs. Thus, the technical assistance will allow for the support CSA staff needs to resolve outstanding technical challenges (e.g. software upgrade and customization, data synchronization and system automation), advise CSA on mapping methodology amendment and development, identify, draw up and lead implementation of additional capacity building needs, and establish pragmatic data quality assurance mechanisms and fields monitoring and reporting framework. The cartographic / GIS specialist will be recruited through competitive bidding in the global market place in accordance with UN procurement due process to assure quality technical assistance and value for money. The UN's hiring procedures for long term consultants will guarantee successful recruitment of the right skills for the needs at hand.

2. Improved cartographic infrastructure

The existing census mapping methodology will be amended to enhance quality and pace of map production. This will require, among other things, acquisition of additional Bluetooth and GPS enabled hand-held data loggers. At least 500 devices will be required to facilitate the operations of 100 or so teams to be added (each team has one supervisor and six GIS assistants). Technical experts will be consulted on appropriate and cost-effective devices.

### 3. Technical capacity building of CSA staff

Due to high turnover of staff at CSA, none of the current CSA staff managing the censuses processes has been involved in census implementation previously. Because census cartography and GIS development is an extremely high skill all CSA technical staff will require conceptual and hands-on training so as to leverage the optimal benefits of the use of new technology. In full particular, full capacity building in the following critical areas is inevitable:

- (ç Geodatabase development and management
- (ç EA maps production and concatenation
- (ç Field-office work flow management
- (ç Network security and administration
- (ç Disaster preparedness
- (ç Data documentation and archiving
- (ç Spatial data analysis

The capacity building programs will strengthen the skills of CSA staff to effectively implement all the phases of the census (pre-enumeration, enumeration and post-enumeration) activities, as well as support other national statistical system activities such as upcoming agricultural census and national surveys. Further, the skills can and will be shared with other countries needing similar support through the South-South cooperation initiatives, and of which CSA is already a big beneficiary (Ethiopia 2017 Census cartographic activities were kick-started through devices (GPS-enabled data loggers) and technical assistance provided by Namibia Statistics Agency through the South-South Cooperation arrangement). Quite a few NSOs have already expressed interest to visit CSA when they start preparing for their census to understudy Ethiopia's census cartography and GIS methodology.

### 4. Geodatabase development and management and field supervision

The CSA needs to collect and manage the GIS data through a data base system that will ensure operational efficiency in work flow management and quality and timely production of EA maps. To this end CSA requires to develop a geodatabase through which project downloads, uploads, editing/validation and compilation will be accomplished. The geodatabase will provide additional advantages to census operations through linkages with other GIS-platform applications to facilitate subsequent census processes/phases (e.g. data processing, analysis and dissemination).

The development of the Geodatabase will require an external/international IT/data processing expert to work with the GIS Specialist and CSA GIS staff. Once developed the geodatabase will be implemented both at head office and branch offices across the country. Regular monitoring through scheduled field monitoring visits (FMVs) will be required for optimum and sustainable implementation and benefits thereof.

### 5. Training of additional cartography/GIS field personnel

The additional 100 or so teams (or at least 700 field mapping personnel) recruited to enhance the pace of EAs production related activities must undergo comprehensive training and field practice (45 days, or 6 weeks) to bring them up to the required skill levels before embarking on field mapping. Three international experts (Cartography, GIS & IT/data processing experts) will be hired for 3 weeks to train selected CSA staff (TOT) who, in turn, will train the field mapping personnel.

6. UNFPA grant administration costs

A standard fee of seven percent of the entire cost of every donor funded program will be levied by UNFPA head office to offset costs related to the program administration, including project review and audit.

**D. Project location and salient physical characteristics relevant to the safeguard analysis (if known)**

The 2017 Population and Housing Census will collect information on all persons present within the borders of Ethiopia on the census reference date.

**E. Borrower's Institutional Capacity for Safeguard Policies**

The Borrower has the institutional capacity to address safeguards policies.

**F. Environmental and Social Safeguards Specialists on the Team**

Tamene Tiruneh Matebe (GSP01)

**II. SAFEGUARD POLICIES THAT MIGHT APPLY**

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	No	No significant environmental or safeguard issues are expected.
Natural Habitats OP/BP 4.04	No	No significant environmental or safeguard issues are expected.
Forests OP/BP 4.36	No	No significant environmental or safeguard issues are expected.
Pest Management OP 4.09	No	No significant environmental or safeguard issues are expected.
Physical Cultural Resources OP/BP 4.11	No	No significant environmental or safeguard issues are expected.
Indigenous Peoples OP/BP 4.10	No	No significant environmental or safeguard issues are expected.
Involuntary Resettlement OP/BP 4.12	No	No significant environmental or safeguard issues are expected.
Safety of Dams OP/BP 4.37	No	No significant environmental or safeguard issues are expected.
Projects on International Waterways OP/BP 7.50	No	No significant environmental or safeguard issues are expected.
Projects in Disputed Areas OP/BP 7.60	No	No significant environmental or safeguard issues are expected.

**III. SAFEGUARD PREPARATION PLAN**

Appraisal stage ISDS required?: No

**IV. APPROVALS**

Team Leader(s):	Name: Anne Margreth Bakilana
<b>Approved By:</b>	

Safeguards Advisor:	Name: Nathalie S. Munzberg (SA)	Date: 18-Oct-2016
Practice Manager/ Manager:	Name: Sybille Crystal (PMGR)	Date: 18-Oct-2016

<sup>1</sup> Reminder: The Bank's Disclosure Policy requires that safeguard-related documents be disclosed before appraisal (i) at the InfoShop and (ii) in country, at publicly accessible locations and in a form and language that are accessible to potentially affected persons.