# Information Systems Services Company Profile



# Leading GIS

solutions for Ethiopia



Addis Ababa, Ethiopia www.iss-ethiopia.com



# INFORMATION SYSTEMS SERVICES COMPANY PROFILE

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# **BACKGROUND AND GENERAL**

ISS is a company established in Ethiopia in 1996 with its head office in Addis Ababa.

The company is among the first established by Ethiopian nationals to offer services in information technology (IT) in general, and in geographic information system (GIS) in particular.

ISS is engaged in consulting in geographic information system and the direct application of computer based tools such as computerized cartography, remote sensing / photogrammetry, surveying, etc. for land information system (LIS), land use planning, environmental planning and management, water resources management, urban planning facilities mapping and other developmental activities. ISS uses the latest technology for data acquisition, analysis, presentation and reporting.

The partners of ISS have both local and international experience having worked on projects in various countries in Africa, Asia and in North America. Thus, they are able to apply this wealth of know how in serving their clients. ISS staff has an extensive collection of GIS skills with considerable experience in the use and application of various GIS software on different operating systems.

ISS has formed several strategic alliances with different companies around the world for technology assistance, and thus is a Business Partner and a Value Added Reseller of software and products from Environmental Systems Research Institute (ESRI) of USA, the largest GIS software producer in the world. ISS also has collaborations with many other international companies.

One of the service objectives of ISS is building organizational capacity in using GIS based technologies, and to this end the company is engaged in providing training to its clients. The training that is given varies according to the needs of the client and ranges from a general awareness to GIS and its applications to the various methods of data acquisition, editing and analysis. The training is also given as formal classroom training and / or on-the -job training depending on the particular project type. In line with expanding its training services, ISS since 2008 has become the only ESRI Authorized Learning Center in the country providing ESRI certified GIS courses by ESRI certified instructors.

Since its establishment, the company has made a significant impact in Ethiopia by being a pioneer in providing GIS technology based services for various governmental, non-governmental and international organizations. ISS will continue to provide its high quality services hoping to contribute its share to the development of the country and the continent.

ISS is also a founding member of THE AMERICAN CHAMBER OF COMMERCE IN ETHIOPIA (AMCHAM) which was established in 2008.

# I. MAJOR PROJECTS

# Land Information System Projects

Among the many projects undertaken by ISS, the establishment of Land Information Systems (LIS) for the cities of Addis Abeba, Dire Dawa and Mekelle take precedence. These projects were major challenges and involved numerous office and field staff to implement. Summarized descriptions of the three projects are as follows.

# Project: <u>Establishing a Land Information System (LIS) For fifteen Woredas</u> in Addis Abeba

**Client:** Urban Works and Development Bureau of Addis Abeba City Government

Location: Addis Abeba

**Date:** November 1997 to September 2000

This project was the first of its kind in the country and one of the few in Africa at the time. The objective was to create a land information system for fifteen of the city's Woredas (districts) which constitute more than half of the estimated 400,000 housing units. In addition, during the project period, twenty four staff members from the Urban Works and Development Bureau (UWDB) of the city government staff were to be trained in all aspects of the establishment of the LIS and finish the work for the rest of the city.

The Addis Abeba city government officials realized that severe lack of vital information hampered their ability to create urban development plans, efficiently manage services and collect tax revenues due to the city. Therefore, the creation of the LIS for the city was seen as critical. The two major inputs for establishing the LIS, the spatial and non-spatial data came from the CAD drawings generated from the aerial photograph of the city, and the household survey done by 4000 data collectors employed by the UWDB.

Using the GIS technology of the time, ISS established the LIS for the fifteen Woredas of Addis Abeba and also provided on-the-

job training for sixteen city engineers and surveyors on all the steps that require the creation, use and management of the LIS. In addition eight officials and department heads of the city government were trained in the query and analysis methods in order to be able to use the data.



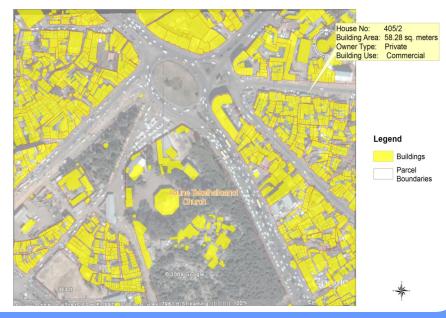
LIS trainees of the city government on graduation day.

After the completion of the first phase of the LIS project, the trained staff of the UWDB continued on their own to successfully complete the establishment of the LIS for the rest of the city. The completed system was able to provide physical and descriptive data at a house and parcel level. The investment proved to be beneficial as the tax revenue increased many times and services for the citizens of the city was immensely improved. The Addis Abeba LIS being the first in the country became exemplary for other cities and towns to take the initiative to establish a similar system.



The A.A LIS project special Achievement in GIS Award given at the 19th Annual ESRI International User Conference

### Addis Ababa Land Information System - established in 2000



# Project: Establishing a Multi-Purpose Land Information System for the City of Dire Dawa

Client: Dire Dawa Provisional Council Location: Dire Dawa

**Date:** November 2004 – February 2006

Encouraged by the success of the Addis Abeba LIS and the benefits that it delivered, the Dire Dawa City Provisional Council decided to establish a similar system for the city. The city of Dire Dawa which is a federal city was lacking basic land related information as in other cities of the country, and the problem of the expansion informal settlements was becoming a major challenge. The city council understood that in order to tackle this and other problems of the city, the creation of a land information system for the city was a prerequisite.

ISS won the tender for establishing the LIS and was to accomplish the following objectives.

- To organize and collect cadastral and descriptive data for each housing unit.
- To implement Land Information System with the view to improve land management for the city.
- To provide training on managing and using the LIS for professionals drawn from relevant municipal departments.

The spatial data showing the parcel and building outlines was derived from aerial photograph of the city but needed extensive field work to check and complete it. In addition, ground survey work was needed to integrate the buildings and parcels in the expansion areas of the city, which were not present at the time when the aerial photograph of the city was taken.



Surveying work in the expansion areas of the city

More than one hundred field personnel hired locally, were trained in household data collection work and basic surveying techniques and were able to collect spatial and descriptive data for over 40,000 housing units. Bringing this data together and using GIS technology, the city's land information system was established. Eight city engineers and surveyors were trained in the use and management of the LIS in order to update the system and integrate the infrastructure data of the city.



Measuring property boundary



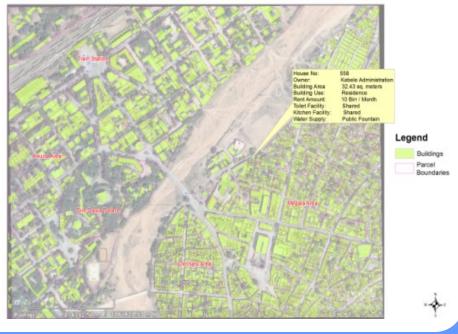
Household survey Interview to Collect descriptive data

The immediate benefit of the LIS was realized even before the project was completed. Using the data from the LIS, the city council launched a regularization project that would legalize the many informal settlements of the city. Regularization plans were prepared by urban planners which were implemented on the ground, and the informal settlements were legalized and title certificates started to be handed out to the dwellers.



City engineers and surveyors during LIS training

### Dire Dawa Land Information System - established in 2006



# Project: <u>Establishing a Land Information System for the City of Mekelle</u>

**Client:** Mekelle City Administration

Location: Mekelle

**Date: 2008** 

This project was designed to tackle similar problems as in Dire Dawa city by enabling the provision of information on the city's land holdings and usage. Similarly, the problem of informal settlements also existed in the city and many dwellers needed legal documents for their holdings. Even though some attempt was made to establish a LIS for the city, it was incomplete and the city engineers and surveyors mostly used the CAD outline of buildings and parcels to do their planning and land allocation work.



Panoramic view of a neighborhood in Mekelle City

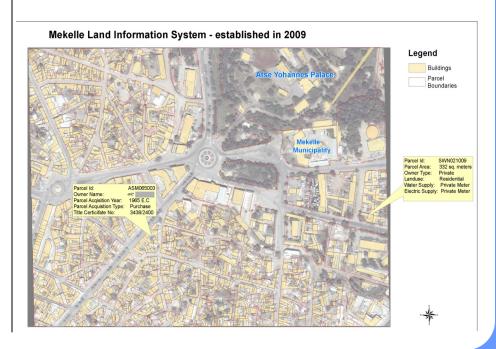
ISS won the tender for this project and was assigned the following tasks.

- To organize and collect cadastral and descriptive data for each parcel.
- To implement a Land Information System in the municipality and seven service areas of the city with the view to improve land management for the city.
- To provide training on managing and using the LIS for professionals drawn from relevant departments of the City Administration.

The spatial data that would be used in the establishment of the city wide LIS came from ground survey of buildings and parcels done at different time periods. Therefore, updating of this data for expansion and other areas was necessary by survey teams. In addition, household survey to collect relevant data was done for over 45,000 parcels in the city. By integrating the physical survey and household survey data, the land information system for the city was established. Training on the use of the LIS data for providing municipal services was also provided for municipality staff.



Survey work in Quiha district of Mekelle City



### **SURVEY AND MAPPING PROJECTS**

Project: Waste Management and Urban Agriculture City Mapping in Dire Dawa City Administration,

Client: Research-inspired Policy Practice and Learning

in Ethiopia (RiPPLE)

**Project: Health Program Area Mapping** 

Client: The Carter Center Ethiopia

Project: <u>Kebele Survey for Rapid School Mapping</u>
<u>Study of the Community-Based Basic Education</u>
<u>Improvement Project</u>

**Client:** Japan International Cooperation Agency (JICA) and Oromia Education Bureau (ManBU) Pro-

ject

Project: <u>Integration of digitized Wereda Administrative maps into Regional</u> <u>Geo-database of Orimoiya, SNNP, Gambella, Harrari & Dire Dawa Regions</u>

**Client:** World Food Programme (WFP)

Project: HIV program coverage map preparation for Oromiya, Amhara and SNNPR Regions

Client: Family Health International (FHI), Ethiopia

**Project: Digitizing topographic- maps** 

Client: CARE Ethiopia

Project: Distribution map production for Fair

**Trade Coffee Producers** 

Client: Sidama Coffee Growers Association

Project: Preparing a Digital Atlas of Africa

Client:- DISD. United Nations Economic Commission

for Africa (UNECA)

### **OTHER PROJECTS**

Project: Ethiopia Civil Society Coalition for Scaling
Up Nutrition GIS database development

Client: Save The Children

Project: Trail Bridge Information System Establish-

<u>ment</u>

Client: Helvetas Ethiopia

Project: Ethiopia Performance Monitoring and Evaluation Services (EPMES), GIS support for USAID

Client: Social Impact Inc for USAID

Project: <u>GIS and Remote Sensing Support for the Integrated Land Use and Development Master Plan</u> of Gambella Region.

Client: Horn of Africa Regional Environment Center

and Network

Project:-Integration of RALS (Rapid Assessment of learning Spaces) database with EMIS (Education Management Information system) database of Ministry of Education.

**Client:** UNICEF for Ministry of Education

Project: <u>Comparative evaluation of High Resolution</u> satellite imagery against Total Station for cadastral

surveying and mapping of rural lands.

Client: ARD (USAID)

Project: <u>AU Border Information System creation</u>

and customization Phase I

Client: African Union / GTZ

Project: Digitizing Administrative Maps

**Client:** World Food Programme (WFP)

Project: <u>Database Creation for the Regional Project</u> <u>Development Division (RPDD) in Ministry of Eco-</u> <u>nomic Development & Cooperation (MEDaC)</u>

Client: GTZ

# SURVEY AND MAPPING PROJECTS (Cont'd)

Project: Commercial Farming Area map production

Client: MIDROC, Ethiopia

# OTHER PROJECTS (Cont'd)

Project: <u>Feasibility study for the establishment of a</u> database center in Gurage Zone

Client: Ireland Development Cooperation/GDP

Project: Feasibility study for the establishment of a GIS in the Regional Project Development Division (RPDD) in Ministry of Economic Development & Cooperation (MEDaC)

Client: GTZ

Project: Establishing a database center in Sidama Zone

Client: Sidama Development Corporation

**Project:** Feasibility study for the establishment of a

database center in Sidama Zone

Client: Irish Development Cooperation

Project: Computer Network (LAN) installation and

training

Client: Bahir Dar University

**Project: Network specification and evaluation consul-**

tancy

Client: Bahir Dar University

Project: Network specification and evaluation consul-

tancy

Client: Urban Works and Development Bureau of Addis

Abeba City.

# II. TRAINING

Providing training services on GIS and other IT solutions is one of the major business area of ISS. The company has vast experience in giving high quality GIS training using the popular GIS software. The training is given both at the client's site as on-the-job training or at ISS Training Center. ISS has the only ESRI certified trainers in the country and has become the first ESRI Authorized Learning Center. While the company specializes on GIS, it also provides training in related technologies such as CAD, Remote Sensing, GPS, and Programming for Customization. The following list shows the major clients whose staff has been given training by ISS.



A training session at the ESRI Authorized Learning Center of ISS

### **ORGANIZATIONS**

- \* ANRS Bureau of Industry and Urban Development
- \* Relief Society of Tigray (REST)
- \* National Animal Health Diagnostic & Investigation Center (NAHDIC)
- \* Mekelle City Municipality
- \* Inter Government Authority on Development (IGAD)



Hands on training in spatial data capture

- \* Disaster Presentation & Preparedness Agency (DPPA)
- \* Poverty Action Network of Civil Society in Ethiopia (PANA)
- Dire Dawa Provisional Administration
- \* Save the Children UK
- \* USAID
- \* SNNP BoFED
- \* PACT
- \* Addis Ababa Road Authority
- \* CARE Ethiopia
- \* Jimma University
- \* Federal Affairs Ministry
- \* Environmental Protection Authority
- \* Bureau of Agriculture Soil Research Center, Gurage Zone (SNNP)
- \* Addis Ababa City Government, Urban Works and Development Bureau
- \* The Amhara Region Bureau of Planning and Economic Development
- \* The Tigray Region Bureau of Planning and Economic Development
- \* The Sidama Zone Department of Planning and Economic Development
- \* The Gurage Zone Department of Planning and Economic Development
- \* The Tigray Region Southern Zone Department of Planning and Economic Development
- \* The Regional Project Development Division of the Ministry of Economic Development and Cooperation
- \* The Woody Biomass Project
- The Science & Technology Commission
- \* Hydrology Department of The Ministry of Water Resources
- \* Dire Dawa City Administration Urban Works & Devt. Bureau
- \* Disaster Prevention and Preparedness Commission
- \* Harerge Catholic Service (HCS)

- \* Ministry of National Defense
- \* Social Forestry Project Tigray
- \* Information National Security Agency (INSA).
- \* The Tigray Region Finance and Economy Devt.(BoFED), SRPT project
- \* Min. of Agriculture GPS training for veterinaries
- \* Urban Development Capacity Building Office
- \* Oromia Industry and Urban Development Bureau
- \* The Amhara Region Bureau of Water and Mines Development
- \* The Benishangul-Gumuz Bureau of Finance and Economic Development
- \* The International Committee of Red Cross
- \* Ministry of Agriculture FITCA project
- \* Ministry of Water and Energy
- \* Addis Ababa Transport Management Office.
- \* Addis Continental Institute of Public Health (ACIPH)
- Addis Ababa Road Transport
  Management Agency
- \* Geological Survey of Ethiopia.
- \* AMREF Ethiopia

# III. SOFTWARE SALES & SUPPORT

ISS offers a wide rage of ESRI software products, and is committed to continued after-sales support to its customers.

### **PRODUCTS**

ISS provides all ESRI GIS Software products including:

- ArcGIS Desktop (ArcView, ArcEditor, ArcInfo & Extensions)
- ArcGIS Server products
- Mobile GIS products

In addition we provide image processing software for leading companies in the filed.

We provide general support to all our customers through mailings and distribution of ArcNews and ArcUser. Buyers of our products are assisted with the installation and configuration of their software.



ESRI GIS Software product

### ORGANIZATIONS

- \* UNICEF
- \* Nile Basin Initiative
- \* Save the Children UK
- \* FAO
- \* IGAD
- \* JICA, Ethiopia
- \* UNHCR
- \* Hararghe Catholic Secretariat
- \* Relief Society of Tigray (REST)
- \* Disaster Preparedness and Prevention Commission (DPPC)
- \* Oromia Bureau of Agric. Dev.
- \* CARE Ethiopia
- \* Medac (Regional affairs Department)
- \* Addis Ababa University
- \* Woody Biomass Inventory & Strategic Planning Project

- \* ILRI- Ethiopia
- \* Geological Survey of Ethiopia
- \* Biodiversity
- \* Ministry of Water Resources
- \* Ministry of Agriculture
- \* United Nations Economic Commission for Africa (UNECA)
- \* United Nations Office, Mine Action Program
- \* United Nations Population Fund (UNFPA)
- \* World Health Organization
- \* Ethiopian Mapping Authority
- \* National Urban Planning Institute
- World Food Programe
- \* Gurage Zone Planning and Economic Development office
- \* Sidama Zone Planning Bureau (Awassa)
- \* Bahir Dar University
- \* Amhara National Regional State, Bureau of Finance and Economic Development
- \* Beninshangul Gumuz Regional State, Bureau of Finance and Economic Development
- \* Jimma University
- \* Dire Dawa Development and Improvement Project Office
- \* Ministry of National Defense
- \* Ministry of Finance & Economic Redevelopment
- \* Ethio-Italian Dev. Cooperation
- \* Immigration & Nationality Affairs
- \* Alemaya University
- \* Ethiopian Electric Power Corporation
- \* Mekelle University Collage
- \* ICRC
- \* Groundwater Development and Water Supply Training Project (JICA)
- \* Addis Abeba City Government
- \* GTZ Ethiopia
- \* FAO Ethiopia
- \* Tigray Regional Bureau of Finance and Economic Development
- \* National Herbarium
- \* National Meteorological Services Agency

- \* Amhara National Regional State, Bureau of Agriculture
- \* Ministry of Education
- \* Oromia Rural Land and Natural Resources Administration Authority
- \* International Rescue Committee Ethiopia
- \* Famine Early Warning System Network – Ethiopia
- Netherlands Development Organization
- \* Ministry of Agriculture & Rural Development
- \* Amhara National Regional State, Water Development Bureau
- \* AG Consult, Consulting Hydrologists and Engineers
- \* Ethiopian Roads Authority
- \* ANRS Bureau of Industry and Urban Development





ESRI GIS Software product

# **Information Systems Services Management Profile**

# <u> Mrs. Aster Solomon – General Manager</u>

She is the founding member and principal partner of the company. Has led the company successfully since its establishment in 1996 G.C. Trained as a GIS analyst, she also provided professional services for the company. Has An extensive experience on handling projects as an economist and in the overall management and operation of GIS/LIS projects. Has managed a successful multipurpose Land Information Systems (LIS) of the Addis Ababa city (1997-2000) and other cities. She has specialized in GIS for Urban application, which enables her to handle LIS projects for urban/cadastre application. Has experience of application of GIS and Remote Sensing techniques for Master Plan Project. Has rich experience in managing many large size GIS projects.

# **Education**

- \* ITC, Enschede, 1993, Post Graduate Diploma in Geographic Information System (GIS) for Urban Applications.
- \* Project Planning Center, University of Bradford, UK, 1986, Certificate in Project Planning.
- \* Alemaya Collage of Agriculture, Addis Ababa, University, 1980, B.Sc. in Agricultural Economics.

# Mr. Yohannes Debebe - Deputy General Manager

He is the founding member and principal partner of the company. Has worked as the Deputy GM of the company and managed the sales and training activities since its establishment in 1996 G.C. Implemented and participated various GIS projects successfully both within Ethiopia and abroad (USA, South Africa, Saudi Arabia). The projects range in scope from performing feasibility studies, to establishing GIS based database systems, Geodatabases, to training staffs of various organizations, to performing complex analysis. Extensive GIS related experience which comes from working on assignments such as producing continent wide GIS database for Africa, establishing a land information system for Addis Abeba, Dire Dawa and Mekele, performing feasibility studies for establishing database centers, establishing a GIS based database center for rural planning and development, and developing a GIS implementation plan.

## **Education**

- \* Hunter College of The City University of New York; New York, U.S.A; 1995, M.A.,in Geography.
- \* Grambling State University; Grambling, Louisiana, U.S.A; 1986, B.A., in Geography.

# **Information Systems Services Management Profile**

# Mrs. Meazanesh Asres – Technical Manager

She joined the company in 2014 as a technical manager providing leadership and support on all GIS and IT related technical issues. Her leadership skills in managing technical issues within the company have added important value to our service delivery. Trained as software programmer and GIS analyst, she has one of the few skills found in the country which makes her a valuable asset. She also works as a web and mobile GIS developer.

# **Education**

*	ITC, Twente	University,	The N	Vetherlands,	2012,	Master	of Sc	ience ir	ı Ge	oinforma	tics.
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*	Hawassa Unive	ersity, Hawassa,	Ethiopia,	2006, Bache	lor of Science	in Computer Science.
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