

# Report on GNSS Application Development Initiatives in Zambia and the Sub-region

UN/USA International Meeting on the Use and Applications of  
GNSS

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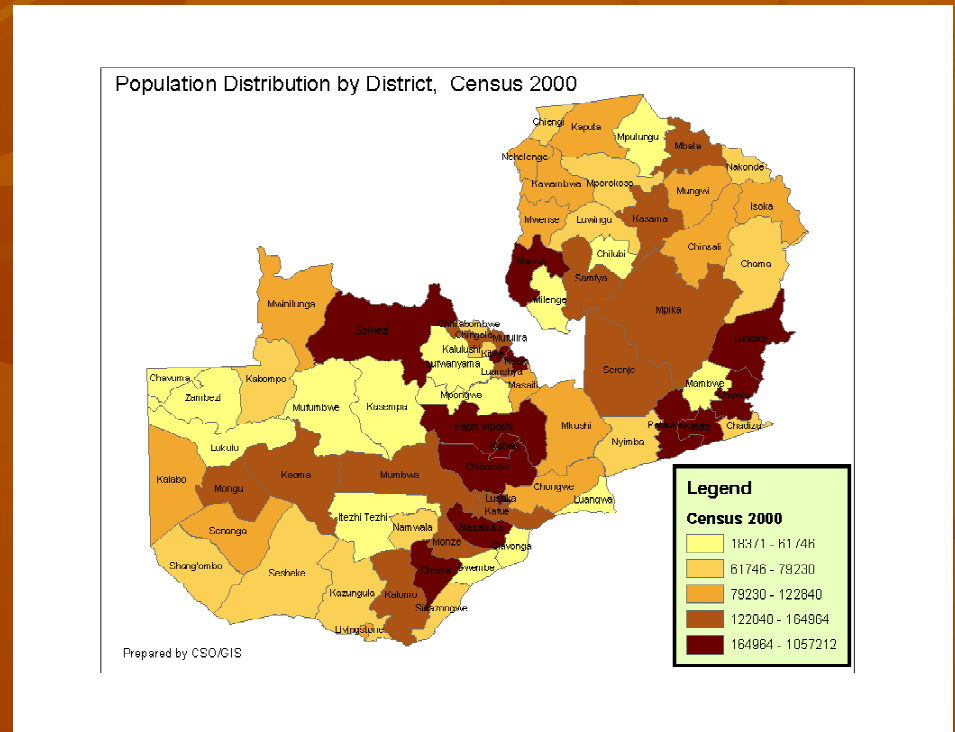
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# OUTLINE OF PRESENTATION

- Development of new Projects
- Notable GNSS activities in Zambia
- Regional networking efforts
- Focused projects interests

# BACKGROUND INFORMATION

- Zambia is a land locked country covering an area of 752 612 square km – 2.5% of the area of Africa.
- Shares its borders with the following countries Zaire, Tanzania, Mozambique, Zimbabwe, Botswana, Namibia, Angola and Congo Democratic Republic.
- Administratively it is divided into 9 provinces and 72 districts. Two provinces are predominately urban- Lusaka & C/Belt
- Zambia's population is 10 million and has 70% living in the rural area. Annual Growth rate is 2.9%. 49% of pop. is under 15 yrs.
- Life expectancy is 40 years



# HEALTH SERVICES

- Last decade has seen major re-organization of health services under the health reform programme.
- Due to Health Reforms Management activities have been decentralized from the Ministry to Health Boards at District, Provincial and Tertiary Level to increase efficiency
- Below is the table where health facilities are found

# HEALTH FACILITIES

■ Central Hospitals	03
■ General Hospitals	18
■ District/Mission Hospitals	71
■ Urban Health Centres	187
■ Rural Health Centres	899
■ Military Hospital	01
■ Private Clinics & Hospitals	Plenty

# CONSTRAINTS

- High attrition rate
- High disease burden
- Lack of adequately trained human resources
- Obsolete equipment
- Public inaccessibility to services

# GNSS Technology

The benefits of GNSS application are many:

aviation, maritime and land transportation, mapping and surveying, agriculture, power and telecommunications networks and disaster warning and emergency response.

*GNSS technology* can provide opportunities to :

- improve the quality of life
- benefit social and economic progress
- support priorities for sustainable development



# DEVELOPMENT OF NEW PROJECTS IN ZAMBIA

- Establishment of pilot tele-health centres
- Integration of Curriculum in key Academic Institutions
- Regional GNSS Awareness Workshop in thematic areas

Collaborating Partners:

Ministry of Health, Central Board of Health

University of Zambia

GNSS National User Group

Warsaw University of Technology, Poland

USA

UNOOSA



# ESTABLISHMENT OF TELE-HEALTH IN ZAMBIA

- Steering committee (SC) of key stakeholders appointed by Ministry of Health in 2003
- SC mandated to spearhead the establishment of tele-health centres in Zambia
- SC conducted a series of meetings with various key stateholders
- SC has completed feasibility studies for establishing three (3) out of five (5) tele-health centres – Mumbwa, Kabwe & UTH
- Specification and costing of required tele-med equipment has been done
- US\$30,000 secured (USAID, Zambia) out of total requirement of US\$100,000; Zambia has contributed counter-value funds, material resources and infrastructure

# BENEFITS FOR TELE-HEALTH

- Access to health services by rural communities
- Timely intervention for emergency response and to reduce diseases burden
- Reduce public expenditure
- Consultations with other countries leading to improved service delivery – exchange of ideas, practices and methodologies
- Availability of literature and information to academic institutions

# Integration of Curriculum

- Establishing of tele-health centres and other GNSS activities require human resource development
- Poland volunteered to assist in the areas of:  
Education, Training and Awareness such as curriculum development for University of Zambia and Evelyn Hone College
- Project costs and an implementation plan has been drafted for discussion

# REGIONAL GNSS WORKSHOP

- Critical need for a Regional workshop to sensitize policy and decision makers on benefits of GNSS technology and applications in order increase political will and commitment – Ministers, PSs, Directors
- Thematic themes – Health, Agriculture, Environment and Natural Resources, Survey, Mapping & earth Sciences
- Regional exchange of experiences SADC countries to be invited
- Partners - UNOOSA, USA, Poland
- Project costing and implementation plan being drafted

# COURSES OF ACTIONS

- To conduct an inventory of needs for the region in GNSS services
- To consider ways in which entities and members of the UN, non-governmental entities and international organizations could play a role in filling the technology gap
- To see the feasibility of integrating the GNSS Syllabus into University of Zambia and Evelyn Hone College
- To support Tele-health in Zambia in the delivery of health care services
- To advise on how to augment the tele-health by GNSS
- To hold a National Workshop on GNSS for the local authorities
- To hold a Regional Workshop on awareness on the use and application of GNSS Technology for Decision and Policy Makers (Zambia being the host country).

# TASKS

NO	TASK	DURATION	MONTH
1	Approval of Project OOSA		December 2004
2	<b>Exploratory Visit in Zambia</b> National Workshop + Advising establishment of Telehealth Meeting Academia & students	5 Days	February 2005
4	<b>Preliminary report</b> written & circulated and the programme for the Regional workshop prepared	30 Days	May 2005
5	Preparations for the Regional Workshop	5 Months	Feb- June 2005
6	<b>Regional Workshop Held</b>	5 Days	July, 2005
7	Project results dissemination		
8	Follow – up, expanding the experience for other regions		



# Project Results

Action	Deliverable
1.	Contacts established. Material for the report partially collected
2.	Report. Training and workshop materials prepared
3.	Regional workshop summing up
4	GNSS implementation in Telehealth
5	GNSS instructors trained
6	The initiatives for prospective project follow-up actions.



# Costs

Activity	Approx costs	Main details of cost calculations
1. Exploratory visit		Travel and 4 days staying in Lusaca, 4 persons from WUT, on-site visits
2. Preliminary report		Prepared jointly by WUT and Zambia partners. Curriculae and the programme of workshop prepared
3. National Zambia workshop on GNSS		Workshop for about 200 people from Zambia, 4 key speakers from WUT and advisory body (other countries). 5 observers from region countries invited
4. Application of GNSS in health programme in Zambia		to be précised
5. Regional workshop		4-5 day workshop for 60 participants from regional countries, 10 persons from other local invited.
6. Project results dissemination		

# Conclusions

- Needs for GNSS in Africa obvious
- Pilot project ready

## Three applications included:

- Health service (emergency also for tourists)
- Education (curriculae development)
- Regional workshop

## Further steps:

- seed money needed
- contacts with manufacturers and service providers