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

UN/USA International Meeting on the Use and Applications of GNSS
13-17 December 2004, Vienna, Austria

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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 landlocked 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 predominantly 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 the population is under 15 years.
- 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
CONTRAINTS

- 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 stakeholders
- SC has completed feasibility studies for establishing three (3) out of five (5) teletele-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.
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).
<table>
<thead>
<tr>
<th>NO</th>
<th>TASK</th>
<th>DURATION</th>
<th>MONTH</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>Approval of Project OOSA</td>
<td></td>
<td>December 2004</td>
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<tr>
<td>2</td>
<td><strong>Exploratory Visit in Zambia</strong></td>
<td>5 Days</td>
<td>February 2005</td>
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<td></td>
<td>National Workshop + Advising establishment of Telehealth</td>
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<td>Meeting Academia &amp; students</td>
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<td>4</td>
<td><strong>Preliminary report</strong> written &amp; circulated and the programme for the Regional workshop prepared</td>
<td>30 Days</td>
<td>May 2005</td>
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<tr>
<td>5</td>
<td>Preparations for the Regional Workshop</td>
<td>5 Months</td>
<td>Feb- June 2005</td>
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<tr>
<td>6</td>
<td><strong>Regional Workshop Held</strong></td>
<td>5 Days</td>
<td>July, 2005</td>
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<td>7</td>
<td>Project results dissemination</td>
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<td>8</td>
<td>Follow – up, expanding the experience for other regions</td>
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## Project Results

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

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