The Role of an Engineering surveyor in sustainable urban development
Introduction

- The NDPIII Vision “A Transformed Ugandan Society from a Peasant to a Modern and Prosperous Country within 30 years” With the theme "Sustainable Industrialization for inclusive growth, employment and wealth creation can’t be achieved without the involvement of key professionals in the development arena. For this case Land surveyors are at the forefront to aid in achieving this sustainable development."
Sustainable urban Development requires us to have efficient and safe roads to reduce travel times and transportation costs for both the food we consume and the products we export outside the country.

It also necessitates us to have good accessibility to tourism sites, cultural sites that bring in foreign currency.
Roles

Topographic survey

Bathymetry surveys

Design Reviews

Construction Supervision
Key Activities

- PROPER PLANNING
- ACCURATE PROJECT IMPLEMENTATION
  - Control Establishment
  - Detail Survey
  - Setting Out
- TIMELY AND ACCURATE REPORTING
Opportunities for surveyors.

Local Content Scheme..

“By the end of the financial year, 38% of the signed contracts worth UGX1,358,649,565,742 were awarded to local providers through applications of the local content reservation schemes, accreditation for construction materials and margin of preference in favour of the local and resident providers, “ Allen Kagina, unra performance report 2020/2021
The East African region’s total road network in 2008 was 183,178 km, of which only 19 per cent was paved. Additionally, only 70 per cent of its paved roads are classified as being in good condition. By 2030, the paved road network will be 35,250 km, and is expected to reach 65,700 Km by 2050. (NPA, 2020)

- Uganda Support to Municipal Infrastructure Development (USMID) Program, Competitive Enterprise Development Project (CEDP), Albertine Region Sustainable Development Project (ARSDP) among others to improve on urban service delivery. All these projects are supported by the World Bank (IDA).
Northern Corridor Transport project, the road connections to Juba and the Democratic Republic of Congo as well as the Maritime Silk Road that will open up access to the wider East and Central African Region as well as Asia and the Middle East.
Bridge construction

A number of Bridges completed including the Nile Bridge, Isimba Bridge and many are earmarked for construction like the Laropi Bridge, New Sezibwa Bridge, Kazinga Channel, Semuliki Bridge, (Haibare 1 and 2), Kia Kia, etc.
Fly over Construction Projects

Eg. The Kampala Fly over project, the planned VVIP fly over etc.
Oil road project

Over 600km of roads being tarmacked in the oil region.
Upgrading projects

UNRA is currently upgrading 26 road development projects covering a total distance of 1,734 Km. At the beginning of the year, these were at various stages of construction or physical progress. Status of section of Kapchorwa suam road below.
Tourism Roads

- Eg. Kabale Bunyonyi road, Kisoro Mughainga road, Kidepo roads, Katuna Muko Kamuganguzi among others.
Rehabilitation road projects

Eg. Kampala Jinja, Mityana Mubende, Mubende Kyenjojo, Fort portal Bundibugyo, Semuto Kapeeka, Kampala Entebbe Road, Matugga Semuto Kapeeka among others
Capacity improvement and Signalizations projects to improve traffic flow eg. Kampala Outerbelt way, Kampala Bombo expressway, Kampala Jinja Expressway and Southern Bypass with Munyonyo Spur, Busega mpigi Expressway, Kibuye Busega expressway.
Bathymetry survey for ferries route designs

Several ferry routes and land sites being surveyed to aid design of and construction

Over 9 islands in Kalangala

5 landing sites on lake Bunyonyi

BKK project on Lake kyoga

Sigulu ferry project

Kiyindi Buvuma

And many other existing ferries
Challenges

- Training and experience in engineering survey projects, skills gap in these projects, accuracies of control extension required by these projects,
- Surveyors not Registered with ISU and SRB
- Tax Compliance VAT RETURNs where necessary
- Equipment and calibration.
- Embracing New technologies on the market, drones, lidar
- Procurement laws