

“Spatial Land Data Infrastructure for Sustainable Development”

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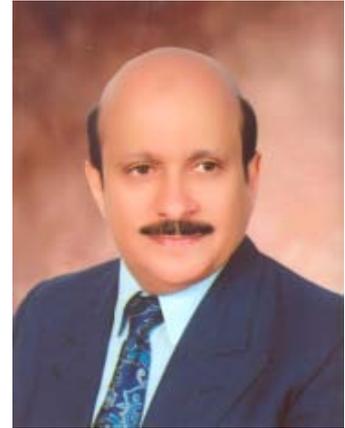
Abstract

“Saudi Arabia’s Vision 2030” was adopted as a roadmap for socio-economic development to achieve prosperous future and sustainable development. National Transformation Program 2020 is a step towards the ambitious goals of the vision; Most important strategic objective of the program is to “Improve Land Management System, Protect Government Land, and Provide Accurate Spatial Information” to achieve the highest levels of transparency, as well as good governance in all sectors and support the sustainable development.

Establishing Infrastructure for Land Information builds and integrates different types of data once and uses it many times for many applications, which provides increased access to land information through geospatial standards. “Spatial Land Data” infrastructure (SLDI) provides base to support sustainable developmental processes at all levels in the Kingdom of Saudi Arabia. This is important because the rational and successful implementation of various projects depend largely on the availability of geospatial information. MOMRA focuses on establishment of SLDI based on the integration of different types of geospatial data, which will be ready for spatial analysis and integration with businesses process and will increase the return on investment (ROI) in Geoinformation technology by improving interoperability, decision making and service delivery. High rate of urbanization and rapid change in urban infrastructure is the biggest challenge for maintaining and managing the geospatial data. Mobile mapping is a fast and economical alternative of accurate spatial data collection and updating of existing data. At the same time new capability parameters are being identified. The future of Geospatial Infrastructure is also being impacted by the advancement of geospatial technology offerings, including the "mass market" (as depicted by Google Earth, Microsoft Virtual Earth and others). The broader Information Technology (IT) market acceptance of powerful, light weight standards, combined with the IT standards community's awareness of the importance of spatial data at all levels of the internet stack raise new opportunities and challenges for the build out of a truly local to national spatial land data infrastructure. We are coming closer to realizing the vision of accurate and up-to-date "Spatial Land Data Infrastructure".

Biography:

Dr. Ing. Muhamad N. ALRAJHI was born and raised in the Kingdom of Saudi Arabia. After graduating with a degree in Civil Engineering, he joined the General Directorate of Surveying and Mapping (GDSM) under the Ministry of Municipal and Rural Affairs (MOMRA), Kingdom of Saudi Arabia. Early in his professional career, he assumed the responsibility for technical and administrative management of large scale projects to fulfill the



need for Aerial Photography, Large Scale Digital Photogrammetric Mapping, Municipal Surveying activities, Multipurpose Cadastre Registration as well as Development of Geographic Information System in MOMRA in support of regional and urban planning activities in a timely and effective manner. He steered the General Directorate of Surveying and Mapping as Director General for over 15 years during which state-of-the-art geomatic technologies were successfully implemented, which culminated in the ISO certification and has made GDSM an eminent civilian survey authority of the Kingdom.

He is currently Assistant Deputy Minister for Land and Surveying in MOMRA and under his guidance, the modernization and updating of the Geospatial Information Infrastructure is effectively serving its key role as the most fundamental tool for decision makers and planners in the Kingdom. In step with his administrative and executive responsibilities, his efforts towards professional development have lead to his completing M.Sc. in Geomatics and is working towards PhD in Geomatics at Leibnitz University, Hannover, Germany. He is a member of several Professional Organizations including AGU, FIG, ISO TC211, ASPRS, ISPRS, EAGE, European Academy of Sciences and Saudi GIS National Committee. He has contributed, presented and published many papers Kingdomwide and internationally.