

EARTH OBSERVATION SYMPOSIUM (B1)
Earth Observation Applications and Economic Benefits (5)

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STATE-WIDE GIS FOR KARNATAKA - K-GIS BENEFITS FROM EO IMAGES AND GIS SERVICES

Abstract

The vision of National Geographical Information Systems (GIS) has been un-folded in India - consisting of a nation-wide, large-scale, maintained GIS Asset, including EO images, and GIS Decision Support System that would be one of the core component of India's governance, planning and thus support the national development process.

The state of Karnataka has completed a task force study to logically drill down National GIS to a state requirement and define a Karnataka (State) GIS (K-GIS). The vision of K-GIS is to realise the true power of EO and GIS by embedding them "within governance" and taken to "every citizen". Any support data/information systems have to be ready to use and not limited by the need to start getting organized.

Two of the 5 major elements of the K-GIS are key – one, a state-wide GIS Asset as an organised geo-database of EO images, satellite-based positioning data, digital maps, crowd-sourced data and geo-tagged attributes – all of these referenced and seamless as a GIS database that is constantly updated/maintained and served as "authoritative" data. Second, is the K-GIS Decision Support System (DSS) applications – a suite of GIS Applications services for different ministries/departments in government that enables better and informed governance; citizens – that empowers them with geographical content; to private enterprises for commercial GIS application services and for academia for education/research activities.

Detailed state-level discussions and workshops and stakeholder/user meetings have determined the states' needs in EO and GIS. The GI data needs are almost 60+ parameters and most of the GIS applications are to be "linked to cadastres" – very important at state-level.

It is envisioned that if State-GIS are organised, they not only achieve key goals of National GIS but also trigger a set of GIS Apps at state-level - serving state-level governance and citizen-needs.

The paper outlines the vision of K-GIS with unique examples of GIS Applications DSS in agriculture, water resources, city planning and administration, publicly funded project monitoring - key/specific examples of EO-images and map based GIS decision support examples of governance and for citizens.