

CRITERIA 6

SOCIALLY RELATED PROJECTS

Feasibility Studies on Geopolymer Concrete Structural Elements with Bamboo Reinforcement for Rural Housing (2020-21)

The feasibility of geopolymer concrete with bamboo as reinforcement is studied and found that bamboo reinforced structural beams can be used for low-cost housing and may be recommended for buildings with single storey. Replacement of steel by bamboo would lead to a lighter structure and may be adopted for construction of buildings in low-seismic zones. The use of geopolymer concrete with bamboo as reinforcement proves to be economical as well as environmentally friendly.



Splitting of Bamboo



Making of bamboo Reinforcement

Development of Davanagere as Smart City (2020-21)

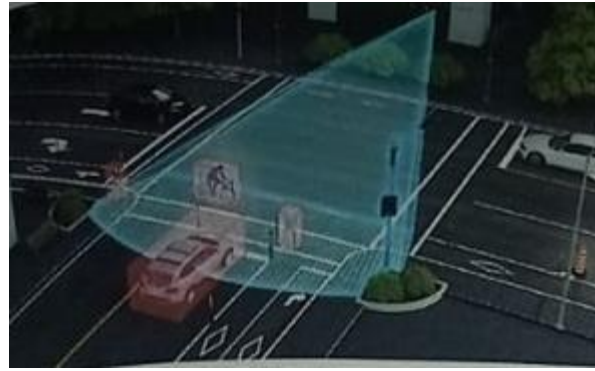
The Smart City (Davanagere) project proposes several critical factors that are crucial for understanding and developing smart cities. Based on these factors, a framework has been designed that gives a more holistic view of the smart city initiative. Smart city project is a futuristic approach to alleviate the obstacles triggered by ever-increasing population and fast urbanization which will benefit the government as well as the masses.



Smart Spot gateway



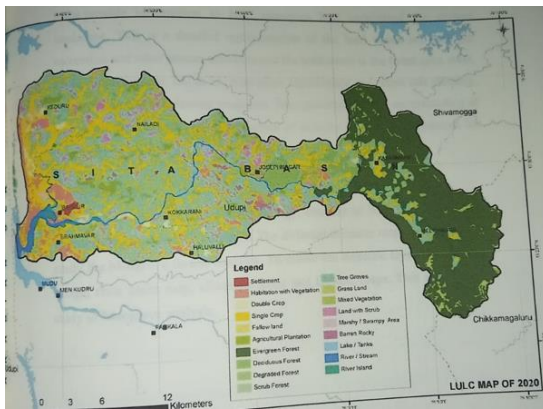
Proposed Bus Stop



Traffic Management

Time Series Analysis of Mangroves of Sita River Basin Udupi District Using Geospatial Techniques (2020-21)

Remotes sensing and GIS are used to analyze the changes in the mangrove forests which form the most important biological ecosystem. Knowledge of mangroves distribution and changes in them due to the threats posed by different and use activities is important for effective management and framing protection policies. Studies on mangroves in the Sita river basin of Udupi district revealed that some parts of the forests were degraded while some parts showed an increase in mangroves cover.



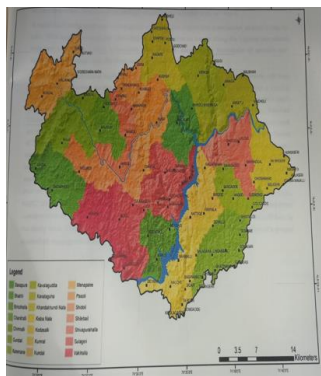
LU-LC Map of Sita River Basin 2020



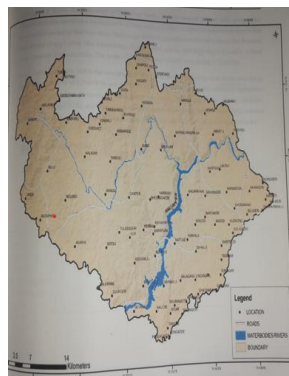
Study Area

Morphometric Analysis Using SRTM-DEM, GIS of Kali River Basin (2020-21)

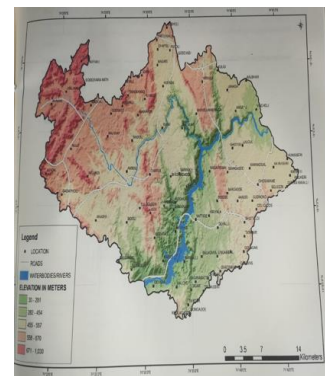
The capabilities of Remote Sensing and Geographic Information System techniques for morphometric analysis of watersheds (Kali River basin) are demonstrated. A detailed study is undertaken using Shuttle Radar Topographic Mission (SRTM) data for preparing Digital Elevation Model (DEM), aspect grid and slope maps.



Sub Watersheds Map of Kali River Basin



Base Map of Kali River Basin



Digital Evaluation Map of Kali River Basin