

GIS-based decision support system for greening of hillocks in Tamil Nadu

Decision Support System (DSS)

Thiruvannamalai district is now rich in green cover and biodiversity, thanks to better ground water storage and soil stability in the hillock region

Context ●●●

Tiruvannamalai district has several isolated hillocks at a minimum height of 120 metres above sea level. Most of the hillocks are in a degraded state causing severe losses in crucial ecosystems services. Restoration requires that there be a scientific approach to plan and implement locally suitable solutions. As part of WASCA climate resilient intervention, Greening of Hillock (GoH) was implemented with Department of Rural Development, Thiruvannamalai, under Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) with the technical support from GiZ, New Delhi.

●●● Intervention

GIS and Remote Sensing Tool are widely used to study the suitability of afforestation based on spatial data analysis. In addition, it is used to plan afforestation and land management measures. GIS-based thematic datasets such as slope, soil, land-use and geomorphology are used along with satellite images of the district to develop a Decision Support System (DSS) for greening of hillocks. The DSS process the different parameters to find the suitable site for the plantation in the Hillocks. The DSS is deigned in ArcGIS platform for effective processing and visualisation. Ground verification of the DSS was carried out and fine-tuned for project implementation.

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under
MGNREGA

DSS process



