



Introduction:

Arecanut (Areca catechu L.) is one of the major plantation crop in the world and is predominantly grown in India by small and medium farm holders. Generally, the arecanut plantations used to be cultivated along the small valleys in the Western Ghats regions of Karnataka, Kerala and in the north eastern states where water availability has been adequate for the plantation. In the recent decades arecanut cultivation has extended beyond hilly regions to plain lands of Karnataka where most of the irrigation requirement is met through groundwater. Expansion of arecanut plantations in canal irrigated command area is of importance as the cultivation of normal cereals and other field crops is replaced with perennial plantation. Arecanut plantations in an irrigated command like Gondi Irrigation Project is of such cases where plantations are seen in plain terrain.

The Gondi Anicut is built (1923) across river Bhadra, near Gondi village located at 11.56 Km from Bhadravati town, Bhadravati taluk Shivamogga district (Lat:13 0 46’ N, Long:75 0 41’ E) two canals and irrigation, as per the available information; was commissioned during 1926-27. The Gondi Irrigation Project has a cultural command area is 4,600 ha. Paddy, sugarcane and other field crops used to be grown with the help of canal water. Arecanut is the major horticultural crop cultivated in the command.

- Objectives:**
1. To estimate the current extent of Arecanut plantation in Gondi command area and to understand the pattern of incremental expansion of arecanut over a decade
 2. To explore the feasibility of open source platform GIS tools for both image processing and map composition
 3. To study the feasibility of archived IRS data for land use change studies

- Methodology adopted:**
1. Image Selection
 2. Base layer preparation
 3. Downloading of LISS III data (Resourcesat-1/ Resourcesat-2)
 4. Supervised Classification for extracting the Arecanut Plantation using QGIS

Source: Resourcesat-1/Resourcesat-2 LISS III from Bhvan website



Team Name: PIXEL

Topic: Changing Pattern of Arecanut Plantations in Gondi Irrigation Command area

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