ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY

Shobhavana Campus, Mijar – 574225, Moodbidri. Dakshina Kannada Karnataka, India



Report On "Bhuvan" Project

MoU

With

National Remote Sensing Center (NRSC)

ISRO, Hyderabad, India and

Jilla Panchayath, Dakshina Kannada (Dist)



2017-18.



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SUMMARY OF BHUVAN PROJECT

Sln	Particulars	Remarks
1.	Project Dates	From: 22-04-2017 to 25-04-2017
2.	Name of the Taluk	Mangalore
3.	Number of Clusters Mapped	11
4.	Number of Villages Mapped	55
5.	Number of Students	330
6.	Number of Faculties	55
7.	Number of Days	25
8.	Number of Assets Mapped	5000
9.	Total Category of Assets	281
10.	Total Category of Assets Mapped:	192 out of 281.



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About Indian Space Research Organisation (ISRO)

The Indian Space Research Organisation (ISRO), is the space agency of the Government of India headquartered at Bengaluru. The main vision of ISRO is to "harness space technology for national development while pursuing space science research and planetary exploration."

ISRO was formed in 1969, by the efforts of independent India's first Prime Minister, Jawaharlal Nehru, and scientist Vikram Sarabhai, managed by the Department of Space, which reports to the Prime Minister of The Republic of India.

On 22 October 2008, ISRO sent one lunar orbiter, Chandrayaan-1, and on 24 September 2014 one Mars orbiter, Mars Orbiter Mission, which successfully entered Mars orbit, making India the first nation to succeed on its first attempt, and ISRO the fourth space agency in the world as well as the first space agency in Asia

to successfully reach Mars orbit. On 18 June 2016 ISRO successfully set a record with a launch of 20 satellites in a single payload, one being a satellite from Google. On 15 February 2017, ISRO launched 104 satellites in a single rocket (PSLV-C37) and created a world record. ISRO launched its heaviest rocket, Geosynchronous Satellite Launch Vehicle-Mark III (GSLV-Mk III), on 5 June 2017 and placed a communications satellite GSAT-19 in orbit. With this launch, ISRO became capable of launching 4 Mr Alur Seelin Kiran Kuma ton heavy satellites.





Dr. P.G. Diwakar

About Bhuvan Panchayat

The Project entitled "Space based Information Support for Decentralized Planning (SIS-DP)" aims at providing web based spatial information system comprising of ortho-rectified satellite image, thematic and field data, resource maps, cadastral maps, administrative boundaries, infrastructure lavers, climate and socio-economic data along with user friendly tools which act as input for the Decentralized Planning.

The goal of SIS-DP project is to empower the Panchayati Raj Institutions (PRIs) and the Stakeholders for spatial, participatory, integrated decentralized planning in

'Area Profile Report' is one of the important applications in 'Bhuvan Panchayat Portal' developed under SIS-DP Project. This module integrates the spatial and non-spatial data of the selected area and delivers the report automatically. The snapshot of satellite image, thematic data and various statistics of an area up to Panchayat/village level can be viewed and downloaded as a report in pdf format. It provides a resource inventory on natural resources, available assets, disaster-prone areas and other major issues & constraints with priorities of the selected area. Considering the interest of the user and the available network resources, chapter wise selection and download is also enabled.

About Alva's Education Foundation (R)

Alva's Education Foundation (R), the dream child of Dr. M Mohan Alva. a visionary genius with an ability to spot talent, youth potential and amazing fund for resourceful ideas for reinventing and restructuring social, Cultural and ethnographic milieu of society, is founded to cater the budding talented youth of the society.

Alva's Education Foundation (AEF) located in Moodbidri (Dakshina Kannada District) has 19 institutions under its fold offering kinder garden to graduate and post graduate courses in engineering, medicine, commerce, pure sciences, Para-medical and humanities. AEF has more than 27000 students pursuing their education in various courses out of almost 5000 students are under full scholarship for Academics, Sports, Cultural, Tribal, North East, Economically backward students provided by foundation.



AEF was established with the primary objective of serving the rural youth of the region by providing wholesome education, which apart from focusing on pure academics, also provides opportunities for students to develop their other innate abilities by organizing literary and cultural events/programs. The students are encouraged to participate in these programs at the competition and organizing level. By sensitizing the students to the traditions and culture, AEF is making

sincere efforts to preserve the Kannada cultural heritage with

Alva's Institute of Engineering & Technology (AIET), a unit of AEF was established in 2008 at Mijar, Moodbidri and is affiliated to VTU, Belgaum, AIET has bachelor programs (BE) in Civil, Computer Sciences, Electronics & Communication, Information Sciences and Mechanical Engineering. So far 5 batches of BE students have graduated from this institute and are working in various organizations across the globe.

Dakshina Kannada Zilla Panchayat - Mangaluru

Dakshina Kannada (previously called as South Canara), the southern coastal district of Karnataka state is located in South-West Karnataka. The total geographical area of this district is 4770 sq. Km. Coastal belt of the district is about 110 km long. National Highways NH 17, NH 13 and NH 48 pass through the coastal line. These highways connect with the states of Kerala and Maharashtra. Mangalore city is the district headquarters of Dakshina Kannada, lies on the geographical coordinates of 12° 51' 50" N, 74° 50' 7" E.

Dakshina Kannada includes 230 Gram Panchavats under 5 Taluks/Blocks namely Belthangady, Bantwal, Mangaluru, Puttur and Sullia. Dakshina Kannada district holds the distinction of for being the first in many high impact development initiatives. It was the first district to pilot Total Literacy Campaign in Karnataka. It is also the first district to be declared as an 'open defecation free district.'

Asset Directory is the compilation of different type of assets/resources available in different parts of the country which are created/being created under various schemes of Government of India, States and Communities by themselves to facilitate the local population. The mapping guidelines are the steps by which citizens and PRIs can map/geo-locate the available assets in an area using Bhuvan Panchayat Portal or mobile application along with their associated attributes.

The Asset Directory is made on community based and village based assets in a Panchayat. The compilation and categorization of assets/resources is in reference to the Space based Information Support for Decentralized Planning (SIS-DP)

Project. To add assets and attributes not available in the asset inventory, there is a provision to add these under 'other asset' and 'other attribute'. This provision is kept under each major category and subclass.

The assets are classified into 5 major categories, 25 subclasses, 73 asset groups and 281 assets. The Asset Directory consists of five major categories of assets as

- 1. Civic Amenities/Infrastructure: 226 Assets
- 2 Governance Assets: 35 Assets
- 3 Human and Livestock Resource Assets: 2 Assets
- 4. Natural Resources Assets: 8 Assets
- 5. Productive Assets: 10 Assets

The asset mapping can be done through the android based mobile application which allows users to automatically grab the location of asset through GPS and capture photographs in-situ. The user is given provision to map the assets as point, line or polygon features. The mobile application also allows user to save the mapped asset data on device itself. Later, with the availability of internet connection, the saved assets can be uploaded to the Portal. The assets mapped through the mobile application can also be viewed online on the Portal along with the other assets already mapped. User can download the Bhuvan Panchayat mobile application through the Portal: www.bhuvanpanchayat.nrsc.gov.in



MOU between NRSC-ISRO, Zilla Panchayat and AIET

A three party MOU was signed between NRSC-ISRO, Zilla Panchayat, Dakshina Kannada and Alva's Institute of Engineering and Technology to carry out the Asset Mapping program. The Project was intended to be completed in three months.

Orientation Program for PDO's at Mangalore

An orientation program about Asset mapping for all the PDO's of Mangalore taluk was arranged by Zilla Panchayat to brief them about the Asset mapping Program. All the PDO's were trained on Bhuvan Panchayat android application by NRSC and

In the meeting it was decided to divide 55 Grama Panchavats into 11 clusters, each cluster consisting of 5 Grama Panchayats, Each cluster consisted of a team of 5 faculty members and 30 students from AIFT



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Orientation to Gram panchayat members of each Cluster by AIET Team.

Gram Panchayat members were trained by 5 faculties and 30 students from AIET at each cluster on 3rd and 4th May 2017.

PDO's suggested to each Gram Panchayat members to assist AIET team during their visit for Asset mapping work.

Asset mapping in each cluster by AIET students and Faculties.

Asset mapping was carried out by a team of 55 faculties and 330 students for period of 25-days and mapped nearly 5000 Assets.

Observations During Asset Mapping

- Primary education is available.
- # Higher education facilities are found to be less in numbers
- Potable Water facilities are be upgraded.
- * Sanitation facilities are improper.
- * Accessibility to interior regions is a concern as the assets are scattered.
- Industries are located even in the rural areas and have become the major source of income
- · Banks and Financial institutions are good in number
- Medical infrastructures are more in number and hence there is a lot of for medical tourism.
- Highly connected road transportations available but frequency of transportation is less.
- Power supply is found to be good
- * Sufficient numbers of Post offices are available with necessary facilities.
- Sufficient numbers of cooperative societies are found.
- Sufficient numbers of ATM are available.
- . Less number of Petrol depots are found.
- More focus should be given on community health and sanitation- including garbage disposal sites, public toilets.
- Rain water harvesting needs to be made mandatory for efficient water management.
- Underground drainage is not found anywhere in the region.
- Solid waste handling and management needs to be improved.
- Central market facilities can be upgraded.
- * Community libraries found to be less and can be improved.



