7. SUMMARY AND CONCLUSION

For any overall development, concentration on the basic amenities such as health, drinking water, electricity, primary education, etc., is the first priority. The village level maps showing several land form details would help in proper scientific developmental planning of the villages.

High-resolution IRS P6 LISS-IV MX shows fabulous prospective to prepare the village level thematic maps. Therefore, user-friendly Decision Support Information system is developed to help the planners to do planning at village level of Karamchedu mandal. Socio economic data of Karamchedu mandal is available in detail which can be updated in future.

This Information system can be used by any authenticated user without having any prior knowledge. The user can query and know the present conditions and accordingly go for further planning. It is useful to find out the drawbacks and potential of any area before going for any developmental activities. The information system can be used to evaluate the Capacity of the area for its shortcomings and therefore to improve the productivity.

India is a developing country and for the development of Indian economy rural development is an important factor. The rural development minister in India is a summit body to build up the rural
areas by implementing numerous developmental projects and programs. It requires the latest and related spatial and non-spatial data at mandal and village level. The research work has been carried out to develop village information system by taking **Karamchedu mandal as a model study. Karamchedu mandal belongs to Prakasam district AP, India.** Karamchedu is a very prosperous model village located 8.5 km from the busy commercial town of Chirala in Prakasam district of Andhra Pradesh in India. Karamchedu mandal has its own significance right from the time of British Raj because of its zamindars and other influential personalities. The study area Karamchedu mandal is located at Longitude of $80^\circ 11'5.64''$ to $80^\circ 22'15.80''$ and Latitude of $15^\circ 56'56''$ to $15^\circ 47'22''$. Area of Karamchedu mandal is 163.220 sq km (approximately). It has a total population of 39,356. There are seven revenue villages in Karamchedu mandal namely Audipudi, Karamchedu, Daggubadu, Kodavalivaripalem, Kunkalamarru, Swarna, and Kesavarapadu; all belong to Chirala constituency.

Development of Decision Support System for village level planning of **Karamchedu mandal** is user friendly having the point and click Graphical User Interface (GUI), which provides a means to make decisions for future planning and development activities. DSS covers various aspects including gathering mandal details, problems raised due to lack of micro level details, preparation of thematic maps like base map, drainage map, transport map land use/land cover, geomorphology,
physiography, and cadastral map using ArcGIS platform. Apart from this the Decision Support System is developed with the aid of Visual Basic 6.0.

Most of the villages in our country have not been connected by any kind of road. The roads passing through many of the towns and cities have become congested. There is a need to construct additional road network to serve the people. This would in turn help in developing the mandal by studying the details at micro level for further planning.

In this junction GIS (Geographical Information System), a rapid developing field will be the platform to better analyze road network very efficiently.

This project work helps to get the digital data of the total Karamchedu mandal, transport network, and drainage network according to their importance. If we analyze any road, we can get the total information in the form of tabular attribute data, length of the roads, and details along the roads. We can get the distance between any two settlements, infrastructure facilities to the villages, and as a future extension with the details available, we can get the shortest route among the network.

Not only the road network details, we can obtain the full details of the Karamchedu mandal as it is a Decision Support System of village level micro planning. For example, we can get the socio-economic data like demographic details (village wise), details of farmer categories,
transportation, telephone, land information, live stock, and educational facilities.

The decision support system developed in Visual Basic is useful in updating and viewing report, hence making decisions useful for the end user. With the help of Decision Support System, any user who is not having any prior knowledge on this software can easily find out all the details of the village at one place. The future extension of this project is to share information to the public via internet.

This kind of design of work further can be used as a replica for other mandal in the state to develop the rural areas.

**Recommendations**

An effort had been made by this research project for village level information system of Karamchedu mandal by using high resolution satellite imagery and Survey of India topomaps (1:25,00) in order to prepare digital thematic maps on large scale and village wise detailed socio-economic digital database was created to develop a Decision Support System. In Karamchedu mandal village basic facilities are available like drinking water facilities (all villages are having tap water facilities), Rythu Mithra Groups, Aganvadi Centres, etc. Facilities like sanitary, telephone (STD,PCO), post offices, primary schools, and High schools are available in all the villages. But there is no junior colleges, Degree colleges, P.G colleges, and any others colleges available in the
villages of Karamchedu mandal. Therefore, it is recommended that to construct more colleges for higher education of the students. As Karamchedu mandal is having population 39,356 among them only 23,136 people are literate. There is telephone facilities are also limited to certain households only so, it is recommended to improve the server facilities so that every house can have one telephone connection. Infrastructure facility is also limited in karamchedu mandal there is no internet facility, no bus stands, no cinema halls, no gas agency, no petrol bunks etc. Karamchedu mandal is an agricultural area most the people in mandal depend on agriculture but there is no market facilities, no rythu bazaars, no market yards and no cold storages for the farmers. So, is highly recommended that there should be an immediate market for the farmers and cold storage facilities. In Karamchedu mandal almost all the villages are connected with metalled roads. There are no large scale industries available in the mandal. There is only small scale industry available in only Kramchedu village. It is recommended that some industries setup should be done so that people can get employment as 50% of the population in Karamchedu mandal are workers and rest of the population are non-workers.

It is recommended that rural population in India immediately requires micro-level information system, which can help the government for decision making, planning, and implementation of different projects in rural areas.