











Ramanathapuram, Idigarai, and Edayarpalayam were also visited personally, and the same were cross verified with Google maps.

#### IV. CONCLUSIONS

From this study, it is revealed that Land use/Land cover areas such as agricultural, commercial, educational, industrial, public and semi-public, residential areas and water bodies occupied 9.38, 2.20, 5.0, 3.1, 1.02, 77.37 and 1.93 percentage areas of the city respectively in the year 2016.

In 1984 the urban sprawl around 29.25 Sq. Km. and the boundary has linear extension in the north of Mettupalayam road and in the east of Avinashi road. In 10 years (1994) span the urban sprawl increases approximately 136% (69.044 Sq. Km.) mostly eastern, western and southern part of the urban. In the northern part, very least area was extended. In 2004 urban area expanded around 358% (133.962 Sq.Km.) in the area of eastern, western and southern part of the city. Urban developed the maximum in the north-eastern and southern part of the city in the year 2010. Presently, Coimbatore urban covers an area of 365.74 Sq.Km. in 2016.

In 2016, the jurisdiction of the Coimbatore Corporation was expanded to 100 wards and five zones such as East, West, Central, North, and South. The thecorporation limit was extended from 29.25Sq.Km in 1984 to 365.74 Sq.Km. in 2016 which has a growth of 1150 percent area of 1984.

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#### REFERENCES

[1] Abbas I.I., Muazu K.M. and Ukoje J.A., "Mapping Land Use-land Cover and Change Detection in Kafur Local Government, Katsina, Nigeria (1995-2008) Using Remote Sensing and GIS", *Research Journal of Environmental and Earth Sciences*, Vol. 2, pp.6 – 12, Jan. 2010.

[2] Edwin, Amrizal Saidi, Aprisal, Yulnafatmawita and Ita Carolita, "Spatial and Temporal Analysis of Land Use Change for 11 years(2004-2014) in Sub-Watershed Sumpur Singkarak", *International Journal on Advanced Science Engineering Information Technology*, Vol. 5, pp.326 – 329, Sept. 2015.

[3] Edwin and Yuzirwan, "Evaluation of Land Use Change in the District Dharmasraya", *International Journal on Advanced Science Engineering Information Technology*, Vol. 6, pp.97 – 103, Jan. 2016.

[4] Gajbhiye S. and Sharma S.K., "Land use and land cover change detection of Indra river watershed through remote sensing using multi – temporal satellite data", *International Journal of Geomatics and Geosciences*, Vol. 3(1), pp.89-96, July 2012.

[5] Hassan Mohammadian Mosammam, Jamileh Tavakoli Nia, Hadi Khan, Asghar Teymouri and Mohammad Kazemi, "Monitoring land use change and measuring urban sprawl based on its spatial forms, the case study of Qom city", *The Egyptian Journal of Remote Sensing and Space Sciences*, Vol.20, pp. 103 – 116, 2017.

[6] Naser Ahmadi Sani, Karim Solaimani, Lida Razaghnia and Jalal Zandi, "Land use change detection using Remote Sensing and GIS", *International Journal of geological and Environmental Engineering*, Vol.10, No.3, pp. 373 – 377, 2016.

[7] Prakasam C., "Land use and land cover change detection through remote sensing approach: A case study of Kodaikanal taluk, Tamilnadu", *International Journal of Geomatics and Geosciences*, Vol. 1, pp.150 – 158, Sept. 2010.

[8] Priyanka Dubey and Dilip Kumar, "Urban Sprawl and its Impact on Urban Environment", *IOSR Journal of Mechanical and Civil Engineering (IOSR-JMCE)*, Vol. 9, pp. 26-31, Nov. 2013.

[9] Rajpoot Pushpendra Singh, Kumar Ajay and Pandey Gyanendra Kumar, "Assessment of Urban Sprawl and its Impact on Natural Environment in and around Jaipur city, Rajasthan, India", *International Research Journal of Earth Sciences*, Vol. 2, pp. 1-6, April 2014.

[10] Rawat J.S. and Manish Kumar, "Monitoring land use/cover change using remote sensing and GIS techniques: A case study of Hawalbagh block, district Almora, Uttarakhand, India", *The Egyptian Journal of Remote Sensing and Space Sciences*, Vol.18, pp.77-84, 2015.

[11] Sundarakumar K., Harika M., Aspiya Begum S.K., Yamini S., and Balakrishna K., "Land use and Land cover change detection and urban sprawl analysis of Vijayawada city using Multitemporal Landsat data", *International Journal of Engineering Science and Technology*, Vol. 4, pp.170 – 178, Jan. 2012.

[12] Tamilenth S., Arul P. and Chandramohan K., "Detection of urban change and urban sprawl of Madurai City, Tamilnadu using GIS and RS", *Journal of Environment Protection and Sustainable Development*, Vol.1, No.3, pp.107-120, May 2015.

[13] Tamilenth S. and Baskaran R., "Detecting urban change of Salem City of Tamilnadu, India from 1990 to 2010 using Geospatial Technology", *International Transaction Journal of Engineering, Management & Applied Sciences & Technologies*, Vol.2, pp.183 – 195, Mar. 2011.

[14] Tusi Das, Sabari Chakraborty and Kaberi Samanta, "Urban sprawl and urban growth detection analysis: A comparative study of Kolkata municipal corporation and Haora municipal corporation", *International Journal of Geomatics and Geosciences*, Vol. 7, pp.82 – 92, Aug.2016.