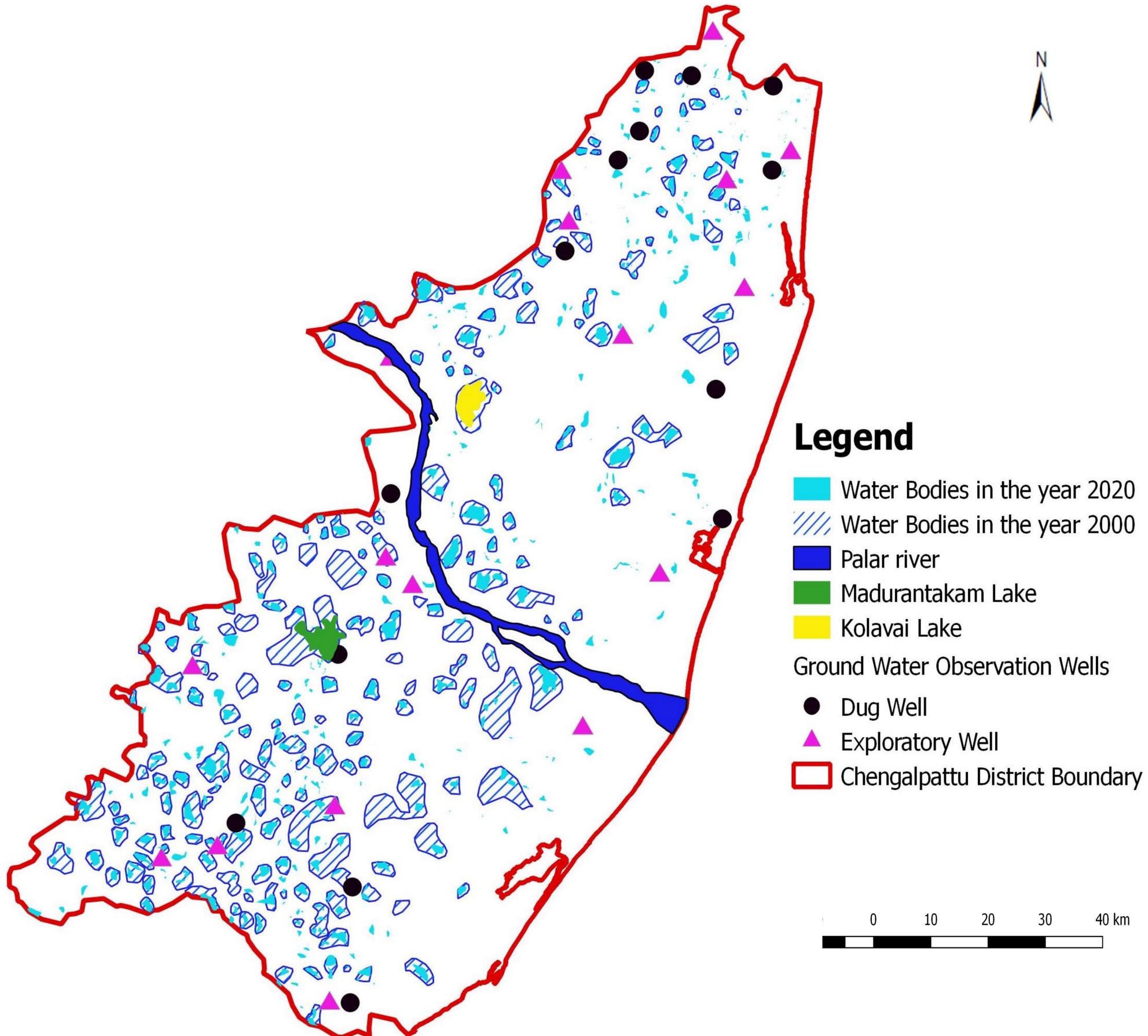


Change Detection in Water Bodies of Chengalpet District

Map description and analysis



Legend

- Water Bodies in the year 2020
- Water Bodies in the year 2000
- Palar river
- Madurantakam Lake
- Kolavai Lake
- Ground Water Observation Wells**
- Dug Well
- Exploratory Well
- Chengalpattu District Boundary

Introduction:

Chengalpet is one of the 38 districts of the Tamilnadu state. It is a new district that has been carved out of Kanchipuram district. It covers an area of about 2945 sq. km. It has 3 revenue divisions of Chengalpet, Madurantakam and Tambaram and 8 taluks of Thirukkazhikundram, Chengalpet, Madurantakam, Cheyyur, Tiruporur, Tambaram, Pallavaram & Vandalur and 12 town panchayats.

Water Bodies:

- There are about 564 water bodies in Chengalpet district. It is named as lake district since it has more number of water bodies.
- Madurantakam lake and Kolavai lake are the major largest lakes in this district. During times of acute water shortage in summer, these lake serves as an additional source of water for the city of Chennai.
- The river Palar is one of the major rivers in the state of Tamil Nadu traversing through Chengalpattu district for a length of 54 km.
- The interlinked tanks in this district drain into the Adyar river and Buckingham Canal in the southern suburbs.

Madurantakam Lake :

- Madurantakam Lake or Madurantakam tank is the largest lake.
- Actual Water spread area of the lake is about 1058 Hectares(Ha).
- Capacity of the tank - 17.25 Mm³, which has 5nos of sluices, and the number of villages irrigated are nearly 9nos.

Kolavai Lake:

- Kolavai Lake is the second largest lake in Chengalpet district.
- Actual Water spread area of the lake is about 894 Hectares(Ha).
- Capacity of the tank - 13.49 Mm³, which has 5 nos of sluices, and the number of villages irrigated are 2nos.

Change Detection Analysis:

The changes analyzed are

- Water spread area of Madurantakam lake at FTL is reduced to 894Ha during the year 2000 and 844.1Ha during 2020.
- Water spread area of Kolavai lake at FTL is reduced to 775Ha during the year 2000 and 592.6Ha during 2020. The reduction of 182.4Ha is due to encroachment of agricultural activities and plantation.
- There are about 14 dug wells and 17 exploratory wells in this district to monitor ground water level in aquifers.



Team Name: Crescent Civilians

Topic: Water Bodies

**Team member/lead: Dr. P. Vasanthi
Dr.Nisha Khanam, Ms.K.Kanmani, Mr.B.Kannadasan**

Organization: B.S. Abdur Rahman Crescent Institute of Science and Technology

Contact/email: vasanthi@crescent.education