Map 3.1 Location of the Study area
Map 4.1 Ground water sampled Locations of the study area

SAMPLE WELL LOCATIONS
Dharmapuri district, Tamil Nadu

Legend
- Well Locations
- Block Boundary

Pallakodu, Karimangalam, Pennagaram, Dharmapuri, Morapur, Nallampali, Harur, Papireddipatti

0 5 10 20 km
Map 5.1.1 Taluk Map of the Study Area

TALUK MAP
Dharmapuri district, Tamil Nadu

Legend
- DHARMAPURI
- HARUR
- KARIMANGALAM
- MORAPPUR
- NALLAMPALLI
- PALACODE
- PAPPIREDIPATTI
- PENNAGARAM

Scale: 0 5 10 20 km
Map 5.1.2 The Map shows FLUORIDE in Ground water for the Post and Pre-Monsoon of the study
Map 5.1.3 Post-Monsoon Average Ground Water Level for the Year 2006 - 2008

POSTMONSOON AVERAGE GROUND WATER LEVEL DURING JANUARY 2006-2008
Dharmapuri District, Tamil Nadu

Legend
- Block Headquarters
- Contour in (m)
- 7.4 - 8.0
- 8.0 - 8.4
- 8.4 - 8.7
- 8.7 - 9.1
- 9.1 - 10.3
- District Boundary
Map 5.1.4 Pre-Monsoon Average Ground Water Level for the Year 2006 - 2008

PREMONSOON AVERAGE GROUND WATER LEVEL DURING MAY 2006-2008
Dharmapuri District, Tamil Nadu

Legend
- Block Headquarters
  - 7.7 - 9.3
  - 9.4 - 9.9
  - 10 - 10.5
  - 10.6 - 11
  - 11.1 - 12.5
- District Boundary
Map 5.1.5 Total Dissolved Solids Availability in Ground Water for Post-Monsoon in the Year 2006

TOTAL DISSOLVED SOLIDS IN GROUNDWATER DURING JANUARY 2006
Dharmapuri District, Tamil Nadu

Legend
- TDS Jan 06mg/l
- High: 1721
- Low: 0.06
Map 5.1.6 Total Dissolved Solids Availability in Ground Water for Post-Monsoon in the Year 2007
Map 5.1.7 Total Dissolved Solids Availability in Ground Water for Post-Monsoon in the Year 2008
Map 5.1.8 Total Dissolved Solids Availability in Ground Water for Pre-Monsoon in the Year 2006
Map 5.1.9 Total Dissolved Solids Availability in Ground Water for Pre-Monsoon in the Year 2007
Map 5.1.10 Total Dissolved Solids Availability in Ground Water for Pre-Monsoon in the Year 2008
Map 5.1.11 The Map Shows the availability of SODIUM for the study area in the Year 2006 - 2008
Map 5.1.12 The Map Shows the LITHOLOGY of the study area
Map 5.1.13 The Map Shows the ASTER Data of Satellite Image of the study area

SATELLITE IMAGE OF DHARMAPURI DISTRICTASTER DATA SHOWING ELEVATION, SPATIAL RESOLUTION”- 30M
Dharmapuri District, Tamil Nadu

Legend
- Block Headquarter
  - High : 1251
  - Low : 154
- District Boundary

- Points of Interest:
  - Papaladu
  - Karamangalam
  - Pennagaram
  - Dharmpuri
  - Nallurpal
  - Manapur
  - Harur
  - Papireddipal
Map 5.1.14 The Map Shows the Shaded Relief of the study area
Map 5.1.15 LANDSAT SATELLITE IMAGE of the study area

SATELLITE IMAGE OF DHARMAPURI DISTRICT
LANDSAT FCC IMAGE ACQUIRED ON
Dharmapuri district, Tamil Nadu

Legend
- Block Headquarter
- Vegetation - Forest / Agriculture
- Water Body - Reservoir / River / Tank
- Soil
- District Boundary
Map 5.1.16 The Map shows the LINEAMENT of the study area
Map 5.1.17 The Map shows the SLOPE of the study area
Map 5.1.18 The Map shows the GEOMORPHOLOGY of the study area
Map 5.1.19 The Map shows the DRAINAGE of the study area

DRAINAGE MAP
Dharmapuri district, Tamil Nadu

Legend
- DRAINAGE NETWORK
- D_boundary

0 5 10 20 km
78°00'E 78°30'E
Map 5.1.20 The Map shows the TANKS and RESERVOIR of the study area
Map 5.2.1 The map shows the Fluoride Risk and safe zones of the study area for post-monsoon in the year 2006

(i). JAN-2006
(ii). JAN-2007
(iii). JAN-2008
(iv). MAY-2006
(v). MAY-2007
(vi). MAY-2008
Map 5.2.2 The map shows the Fluoride Risk zones of the study area for post-monsoon and pre-monsoon for the year 2006 - 2008
Map 5.2.3 The Integrated map of Fluoride Risk zones of the study area for post-monsoon and pre-monsoon for the Year 2006 and post-monsoon for the 2007
Map 5.2.4 The Integrated map of Fluoride Risk zones of the study area for post-monsoon and pre-monsoon for the Year 2006 and for pre-monsoon in 2007
Map 5.2.5 The Integrated map of Fluoride Risk zones of the study area for post-monsoon and pre-monsoon for the Year 2006, 2007 and for post-monsoon in 2008
Map 5.2.6 The Integrated map of Fluoride Risk zones of the study area for post-monsoon and pre-monsoon for the Year 2006, 2007 and for post-monsoon in 2008.
Map 5.2.7 The Integrated map of Fluoride Risk zones of the study area for post-monsoon and pre-monsoon for the Year 2006, 2007 and for post-monsoon in 2008
Map 5.2.8 The Classified image showing map of Fluoride pattern of the study area for post-monsoon and pre-monsoon for the year 2006 to 2008
Map 5.2.9 The map of TDS Risk and safe zones of the study area for post-monsoon and pre-monsoon for the year 2006, 2007 and 2008

(i). JAN-2006
(ii). JAN-2007
(iii). JAN-2008
(iv). MAY-2006
(v). MAY-2007
(vi). MAY-2008
Map 5.2.10 The Integrated GIS image on TDS concentration of the study area for the Level-I to Level-V and overall spatial pattern for post-monsoon and pre-monsoon for the year 2006, 2007 and 2008.
Map 5.2.11 The Classified image of TDS risk pattern for post-monsoon and pre-monsoon for the year 2006 to 2008
Map 5.2.12 The Relationship between TDS and Fluoride concentration in Groundwater of the study area for the year 2006 to 2008
Map 5.3.1 The map visualize the source rocks for contamination of Fluoride
Map 5.3.2 The maps shows the contamination of Fluoride by the rocks
Map 5.3.3 The pattern shows the variability of Sodium present in the study area for the post and pre-monsoon in the year 2006 to 2008:

(i). JAN-2006

(ii). JAN-2007

(iii). JAN-2008

(iv). MAY-2006

(v). MAY-2007

(vi). MAY-2008
MAP 5.3.4 The map visualize the High Level of Sodium in the study area
Map 5.3.5 The map shows the Contamination of Fluoride through weathering of rock
Map 5.4.1 The map visualize the Rainfall during August 2005 to February 2006
Map 5.4.2 The map visualize the Rainfall during August 2006 to February 2007
Map 5.4.3 The map visualize the Rainfall during August 2007 to December 2007
Map 5.4.4 The map visualize the Average Rainfall for the Year 2005 to 2007
Map 5.4.5 The map visualize the Rainfall and Fluoride contamination in Ground Water
Map 5.4.6 The map visualize the Ground water Recharge pattern from May 2006 to January 2007
Map 5.4.7 The map visualize the Ground water Recharge Pattern from May 2007 to 2008
Map 5.4.8 The map visualize the Ground water Recharge pattern from May 2008 to January 2009
Map 5.4.9 The map visualize the Recharge areas for Analysis
Map 5.4.10 The map visualize the Recharge and Fluoride contamination in Ground Water
Map 5.4.11 The map visualize the Lineament Density
Map 5.4.12 The map visualize the Lineament Density Maxima Zones
Map 5.4.13 The map visualize the Lineaments Maxima vs Fluoride contamination
Map 5.5.1 The map visualize the areas of Fluoride-Free Ground Water
Map 5.5.2 The map visualize the areas of favourable Lineament Density in Fluoride-Free zones for recharge
Map 5.5.3 The map visualize the favourable Geomorphic features in Fluoride-Free zones for recharge
Map 5.5.4 The map visualize the suitable sites for recharge
Map 5.5.5 The map visualize the GIS image areas of Less than 6 degree slope
Map 5.5.6 The map visualize the areas suitable for recharge ponds
Map 5.5.7 The map visualize the GIS image of 3-11 Degree Slope and Drainages
Map 5.5.8 The map visualize the check Dams of 3-10 Degree Slope
Map 5.5.9 The map visualize the Lineament Density maxima Axes
Map 5.5.10 The map visualize the Batteries of wells in Ground water
Map 5.5.11 The map visualize the Desiltation of existing tanks located in fluoride safe zones.
Map 5.5.12 The map visualize the Classification of tanks and reservoir located in contamination areas
Map 5.5.13 The map visualize the Tanks for Grouting along Lineaments
Map 5.5.14 The map visualize the Tanks for Grouting along Lineaments
Map 5.5.15 The map visualize the DYKE Rocks in the study area
Map 5.5.16 The map visualize the average Ground water flow
Map 5.5.17 The map visualize the DYKES vs Ground water flow and fluoride contamination
Map 5.5.18 The image visualize the fluoride risk-favourable-Geomorphology and deep Ground water areas
Map 5.5.19 The map visualizes the areas suitable for recharge in fluoride risk zones.