

**DEPARTMENT OF GEOGRAPHY, SCHOOL OF GEOSCIENCES  
BHARATHIDASAN UNIVERSITY**

(UGC SPONSORED SPECIAL ASSISTANCE PROGRAMME (SAP) -  
DEPARTMENTAL RESEARCH SUPPORT (DRS) – I)

Research Theme: **Sustainable Resources Management in Cauvery Basin, South India**

**Coordinator** : **Dr. K. Kumaraswamy**  
Professor, Department of Geography  
Bharathidasan University, Tiruchirappalli

**Dy. Coordinator** : **Dr. A. Ganesh**  
Professor, Department of Geography  
Bharathidasan University, Tiruchirappalli

**UGC Nominees with Address** : **1. Dr. (Mrs) B. Hemamalini**  
Professor  
Department of Geography  
Andhra University  
Visakhapatnam - 530 003  
Andhra Pradesh

**2. Dr. G.R. Parthasarathy**  
Professor and Head  
Department of Geography  
Madurai Kamaraj University  
Madurai - 625 021 Tamil Nadu

<b>Faculty Members and their Specialization / Specific Area of Expertise</b>		
1.	Dr. K. Kumaraswamy, <i>Professor</i>	Disaster Management / Geohydrology / Environmental Studies / Geoinformatics
2.	Dr. A. Ganesh, <i>Professor</i>	Climate Change / Water Resources Management / Geomatics
3.	Dr. S. Aruchamy, <i>Professor</i>	Terrain Evaluation / Climate Change / Remote Sensing and GIS
4.	Mr. R. Jegankumar, <i>Assistant Professor</i>	Climate Change / Agrometeorology / Geoinformatics
5.	Mr. K. Balasubramani, <i>Assistant Professor</i>	Disaster Management / Land and Water Resources Evaluation / Geospatial Technology
6.	Mr. P. Masilamani, <i>Assistant Professor</i>	Terrain Evaluation / Watershed Management / Remote Sensing and GIS

## **TRUST AREAS**

1. **Disaster Studies**
  - i. Earthquake
  - ii. Landslide
  - iii. Drought and Desertification
  - iv. Flood
  - v. Cyclone
  - vi. Tsunami
2. **Climatic Change**
  - i. Drought and Aridity
  - ii. Water Balance
  - iii. Crop Calendar
  - iv. Palaeoclimate
  - v. Contemporary and Palaeo Climate Changes
3. **Terrain Evaluation**
  - i. Evolution of Landforms
  - ii. Land Quality Assessment
  - iii. Land Performance Assessment
  - iv. Land Units for Optimum Utilization
  - v. Land Capability Analysis
  - vi. Land Suitability Analysis

## **YEAR-WISE PLAN**

### **First Year**

1. Procurement of Equipments and Appointment of Research Personnel.
2. Preparation of Base Maps for the study area using Survey of India topographic Sheets and Satellite images.
3. A thorough collection of Review of Literature.

### **Second Year**

1. Relevant data will be collected through secondary sources including satellite data collection.
2. Field work with the help of GPS and other remote sensing instruments
3. Preliminary Chapters

### **Third Year**

1. Primary data collection
2. Processing of data including image processing
3. Preparation of thematic maps

#### **Fourth Year**

1. Preparation of first draft for each theme
2. Review of the work by experts
3. Drawing of final maps

#### **Fifth Year**

1. Preparing for the final draft of the reports
2. Arranging for national conference
3. Final Report submission

#### **MAJOR FACILITIES CREATED:**

1. Geochemical Laboratory (Chemicals & Glassware)
2. Geophysical Laboratory
3. ArcGIS and ArcPad Software
4. ERDAS IMAGINE and Leica Photogrammetry Suite
5. Bentley Microstation
6. Trimble DGPS
7. Automated Weather Station

#### **SEMINARS/WORKSHOPS ORGANIZED BY THE DEPARTMENT**

1. National Seminar on "*Frontier Areas of Research and Teaching in Geosciences*", 26-28, February 2010
2. National Seminar on "*Application of Geomatics in Climatology*", 25-26, March 2010
3. Workshop on "*Frontier Areas of Research and Teaching in Geosciences*", 26-28, February 2010
4. National Seminar on "*Second Green Revolution: Issues and Challenges*", 25-27, March, 2011
5. Workshop on "*Dissemination of Remote Sensing Technology and Disaster Mitigation Programmes to Geography Teachers*", 25-29, March 2011

#### **RESOURCE PERSONS VISITED THE DEPARTMENT DURING 2009-2010**

- Dr. D.M. Muhabey, Director, Co-ordination and Technical & Palaeontology Division, Geographical Survey of India, Nagpur.
- Dr. K. Srinivasaraju, Assistant Professor, IRS, Anna University, Chennai.

- Dr. V. Subramanian, Emeritus Professor, School of Environmental Sciences, JNU, New Delhi.
- Dr. A.L. Ramanathan, Professor, School of Environmental Sciences, JNU, New Delhi.
- Dr. S.D. Naik, Ex. Scientist, Space Application Centre, Ahmedabad.
- Dr. B. Sukumar, Scientist, Resource Analysis Division, CESS, Thiruvananthapuram.
- Mr. R. Gunasekaran, Meteorologist, Advanced Environmental Lab, Tamil Nadu Pollution Control Board, Salem.
- Dr. B. Hema Malini, Professor, Department of Geography, Andhra University, Visakapatnam.
- Dr. P. Elangovan, Professor and Head, Department of ERAC, Madurai Kamaraj University, Madurai.
- Dr. N.D. Mani, Professor and Head, Department of Rural Development, Gandhigram University, Dindigul.
- Dr. M. Sambasiva Rao, Professor and Head, Department of Geography, Sri Krishnadevaraya University, Anathapur.
- Dr. K. Anbarasu, Assistant Professor, Department of Geology, Periyar University, Salem.
- Dr. Mu. Ramkumar, Assistant Professor, Department of Geology, Periyar University, Salem.
- Dr. S. Venkateswaran, Associate Professor, Department of Geology, Periyar University, Salem.
- Dr. A. Shanthakumari, Professor, Department of Geography, Madurai Kamaraj University, Madurai.
- Dr. K. Rajan, Professor, Department of Archeology, Pondicherry University, Puducherry.
- Dr. G. James Pitchai, Professor and Head, Department of Soil and Environment, Father Rovers Agricultural College, Perambalur.
- Dr. V. Madha Suresh, Reader and Head, Department of Geography, University of Madras, Chennai.
- Dr. A. Alagappa Moses, Associate Professor and Head, Department of Environmental Sciences, B.H. College, Tiruchirappalli.
- Dr. S. Kalavathy, Associate Professor, Department of Environmental Sciences, B.H. College, Tiruchirappalli.
- Dr. G. Victor Rajamanickam, Director of Research, Sai Ram Group Institutions, Chennai.
- Dr. N. Krishnan, Emeritus Professor, Madurai Kamaraj University, Madurai.

### Advisory Committee Meetings

1. First Meeting conducted on 05-08-2009
2. Second Meeting conducted on 25-02-2010
3. Third Meeting conducted on 27-08-2010

### Field Study Conducted at Cauvery Basin



**Origin of River Cauvery at Thalakaveri**

*(GPS Coordinates: 12°23.126' N; 75°29.466' E and Elevation – 1282 metres)*



**Giant Sand dunes at Talakad**

*(GPS Coordinates: 12°10.366' N; 77°01.523' E and Elevation - 633 metres)*



**Grand Anaicut across Cauvery at Kallanai**  
(GPS Coordinates: 10°49.917' N; 78°49.213' E and Elevation – 58 metres)



**Vettar Estuary at Nagore**  
(GPS Coordinates: 10°49.618' N; 79°51.037' E and Elevation - 3 metres)

