

Sabita Roy

PhD scholar

Thesis submitted

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Guptipara, Hooghly-712512

West Bengal, India

Motivation

An enthusiastic, adaptive and fast-learning person with a broad and acute interest in the discovery of new innovative way for sustainable development. I particularly enjoy collaborating with researchers from different disciplines to develop new skills and solve new challenges.

Education

Ph D in Geography

Jadavpur University, School of Oceanographic Studies

Thesis Title: Assessment of Drought Dynamics in Purulia District, West Bengal for appropriate adaptation to climate change impacts.

Supervisor: Professor Sugata Hazra

JU, Kolkata

Expected 2022

Post Graduate Diploma in Remote Sensing & GIS

Jadavpur University, School of Oceanographic Studies

Grade A (81%)

JU, Kolkata

2015

MA in Geography

Vidyasagar University

First Class (60.7%)

VU, Medinipur, WB

2013

BA in Geography Honours

Burdwan University

Second Class (56.5%)

BU, Burdwan, WB

2011

Qualifications: UGC NET Geography in June 2015

Research Experience

Jadavpur University

JU, Kolkata

PhD /Project Researcher

Nov 2015 - Present

- Spatio-temporal drought analysed using high resolution satellite data at micro-level on the basis of precipitation, vegetation, temperature & soil moisture indices.

- Prepared map drought risk zone showing the severity of drought condition at micro-level.
- Analysed the impact of drought on socio-economic condition and Migration.
- Identified appropriate area specific adaptation & mitigation (Agricultural Land Classification and Rural Land Use Management using tradition knowledge and remote sensing & GIS).
- Domestic & Crop water demand & availability from different sources of irrigation.
- Soil moisture measurement.
- GPS survey
- Analysis the geomorphology (High Resolution Contour Map, Slop, Lineament, Drainage Density, Micro Watershed Delineation,
- Identified potential ground water and rain water harvesting zone

Jadavpur University

JU, Kolkata

P G Diploma Researcher

August 2014 - August 2015

- Analysis the urban land use land cover pattern through Remote Sensing and GIS techniques.
- Find out the nature of discrepancy in actual expected urban growth in Panihati town during 1999-2014.
- Assessment of traffic congestions in relating accidents and pollution in South Kolkata using GIS approach.

Vidyasagar University

VU, Medinipur, WB

Master's Researcher

2011 - 2013

- An Overview of Migration of Kharagpur Municipality, Paschim Medinipur, West Bengal.
- Socio-Economic and Environmental Study near Kolaghag Thermal Power Station.

Burdwan University

BU, Burdwan, WB

Graduate Researcher

2009-2011

- Field report on Khuri village (Physical & Cultural) of Jaisalmir, Rajasthan

Administration

Responsibility for leading a team of students in planning and organising a field survey.
Experienced in report writing and writing up research work.

Skills

Computer: Microsoft Office, ERDAS, Arc GIS, PCM Geometica, SNAP, SWAT, CROPWAT, CLIMEWAT, SPSS. Skilled database writer and user

Communications

Worked closely with research colleagues, department staff and external contacts.

Experienced in working with a wide range of students.

Made presentations to both academic and non-specialist audiences.

Publications

Roy S, Hazra S, Chanda A, Das S (2020) Assessment of groundwater potential zones using multi-criteria decision-making technique: a micro-level case study from red and lateritic zone (RLZ) of West Bengal, India. Sustainable Water Resources Management 6(1):4. ISSN 23635049

Roy S, Hazra S (2020) Monthly drought assessment and early warning for drought in Purulia District of West Bengal. Indian Ground Water xv: 7-19 ISSN 2347-8063

Hazra S, Roy S, Mitra S (2017) Enhancing Adaptive Capacity and Increasing Resilience of Small and Marginal Farmers of Purulia and Bankura Districts, West Bengal to Climate Change. DRCSC Report. pp1-114.

Roy S, Hazra S, Chanda A, Das S (2022) Land suitability analysis using AHP-based Multi-criteria decision model for sustainable agriculture in red and lateritic zones of West Bengal, India. Journal of Earth System Science. ISSN 0973-774X

Roy S, Hazra S, Chanda A (2022) Identifying Rainwater Harvesting Structure Sites using MCDM based GIS approach: A Mitigation Measure for Drought in sub-humid red and lateritic zones of West Bengal, India. Arabian Journal of Geoscience. DOI: 10.1007/s12517-022-10077-7 ISSN 1866-7538

Certificates

2018	SAC and IEEE GRSS: Soil Moisture and Agriculture monitoring using Micro wave Remote Sensing.
2018	Centre for Ground water Studies and Geological Society of India: Water Resources of Eastern and North-Eastern State of India.
2017	ESRI India: Introduction to GIS.
2017	DECMA: Qualitative Research