

**DR. RANA SARMAH**

Associate Professor  
Department of Geography  
Pandu College, Pandu  
Guwahati-781012, Assam,  
INDIA

**Residence:**

105/D, Nihar Appartment  
Maligaon, Guwahati-781012  
Assam, INDIA

**Phone:** 09435309275 (Mobile)

**Email:** rana\_sarmah@rediffmail.com

**1. Education**

- **Ph.D.**, in Environmental Science, 2002 **Topic:** Fluvial Environment and Mechanism of Floodplain Formation in the Jia Dhansiri River Basin, Assam
- **M.Sc.** in Geography, 1990
- Specialization in Fluvial Geomorphology

**2. Date of Birth:** 1<sup>st</sup> March, 1967

**3. Teaching Experiences**

Has 20 years of teaching experience in the following academic institutions

- a) 14<sup>th</sup> August 1991 to 30<sup>th</sup> July 1992 in the Pachhunga University College, Aizwal, Mizoram (1 year)
- b) 31<sup>st</sup> July 1992 to 3<sup>rd</sup> March 1993 in the Tezpur College, Tezpur, Assam (8 months)
- c) 4<sup>th</sup> March 1993 till date in the Pandu College, Guwahati, Assam

**4. Experience in Setting up of Teaching and Research Laboratory**

1. Set-up a sedimentological laboratory in the Department of Geography, Pandu College, Pandu, Guwahati
2. Fabricated a GPS laboratory in the Department of Geography, Pandu College, Pandu, Guwahati

**5. Experiences in using sophisticated Equipments and Systems**

**Instruments:** Global Positioning System (GPS), Flame Photometer, pH Meter, Digital balance

**Softwares and Systems:** GIS ArcView 9.1, Map Source, Mathematica

**6. LIST OF PUBLICATIONS-30 Nos.**

6.1 Research publications—12 Nos.

6.1.1 **Research paper published in reviewed journals: 10 Nos.**

6.1.1.1 Sarmah, R. (2008) Soil texture characteristics of the Mora Dhansiri meander belt area, Assam, *Indian Journal of Landscape Systems and Ecological Studies* (ILEE), Department of Geography, Calcutta University, Kolkata, vol. 31, No.2, pp.225-240

6.1.1.2 Sarmah, R. (2007) Fluvial environment of the Jia Dhansiri river basin, Assam, *Enviro-Spectrum*, Vol. 2, No.1, pp.75-88.

6.1.1.3 Sarmah (2006) Jia Dhansiri River, Assam, India: A study on channel shifting

- and channel pattern, *Indian Journal of Geomorphology*, vol. 11, No. 1 & 2, pp. 53-64.
- 6.1.1.4 Sarmah, R. (2005-2006) Some observations on basin morphology and fluvial processes in the Jia Dhansiri river basin, Assam, *North Eastern Geographer*, vol.34, No.1 & 2, pp.52-63.
- 6.1.1.5 Sarmah, R. and Goswami, D.C. (2001-02) Changing pattern of land use in the Jia Dhansiri river (North) basin, Assam, *North Eastern Geographer*, vol.32, No.1 & 2, pp.26-35.
- 6.1.1.6 Sarmah, R. (2003) Downstream changes in channel form and grain size in the Jia Dhansiri river (North), Assam, *Indian Journal of Geomorphology*, vol.8, No.1 & 2, pp.7-24.
- 6.1.1.7 Sarmah, R. and Goswami, D.C. (2001) Fluvial geomorphology and basin ecology of the Jia Dhansiri river (North) basin, Assam, *Indian Journal of Geomorphology*, vol.6, No. 1 & 2, pp.91-106.
- 6.1.1.8 Sarmah, R. and Goswami, D.C. (2000): Flood frequency analysis of the Jia Dhansiri river, Assam, *Journal of Assam Science Society*, vol.41, No.3, pp.118-122.
- 6.1.1.9 Sarmah, R. and Goswami, D.C. (1998) Some aspects of flow behavior of the Jia Dhansiri river, Assam, *Indian Journal of Geomorphology*, vol.3, No.2, pp.197-207.
- 6.1.1.10 Sarmah, R. and Bora, A.K. (1995) Impact of slope on land use in the Dhaleswari River Basin of North-East India, *Hill Geographer*, vol. 11, No. 1 & 2, pp.13-19.
- 6.2 Other publications-18 Nos.**
- 6.2.1 English -08 Nos.**
- 6.2.1.1 Sarmah, R. (2008) Glimpse on the river basins of North East India, In Deka, S (Ed.) *North East India : Geo-Environmental Issues*, Eastern Book House, Guwahati, pp.63-96.
- 4.2.1.2 Sarmah, R. (2006-2007) Present day geography: IGC-2004 and IGURC-2006 experience, *Pandu College Geography Dept. Bulletin*, vol.1, No.1, In Press
- 6.2.1.3 Sarmah, R. (2005-06) Be a jewel among men, Send for publication in the *Pandujyoti*, vol.33, pp.41-42.
- 6.2.1.4 Sarmah, R. (2004) 30 Hours in Oxford, Edu News, Pandu College, Vol.2, No.1, pp.6-7.
- 6.2.1.5 Sarmah, R. (2003) Our next steps, *Pandu College Teachers' Bulletin*, vol.3, No.9, pp.2-3.
- 6.2.1.6 Sarmah, R. (2001-'02) School geography and universal values of mankind, *Pandujyoti*, vol.29.
- 6.2.1.7 Sarmah, R. (1990) Environmental pollution: A threat from industries of Assam, *Geographical Horizon*, vol.2, pp.21-29.
- 6.2.1.8 Sarmah, R. (1989) Physical environment of the Brahmaputra valley, *Geographical Horizon*, vol.1, pp.4-8.
- 6.3 Local language (Assamese) -10 Nos.**
- 6.3.1 Sarmah, R. (2006) Bhougolik Gobesana Aru Kishu Anubhuti (Geographical Research and Some Feelings), *Bhougolika* vol.15, No.1, pp.35-37.
- 6.3.2 Sarmah, R. (2004-'05) Collegia Shisha Aru Kishu Prasangeek Chinta (College Education and Relevant Thinking), *Pandujyoti*, vol.32, pp.1-7.
- 6.3.3 Sarmah, R. (1994) Dur Sangbedan Prajuctibigyan: Amar Asha, Akyankha, Samashya aru Bhabishwat, (Remote Sensing Technology: Hopes, Problems and Future of Assam), *Bigyan Jeuti*, vol.29, No.3, pp.11-13.
- 6.3.4 Sarmah, R. (1993-94) Pariskha: Satra Sattrir Manashikata, Nakal, Samay,

- Parikhyat Urtinar Man, Jobika, Adi (Examination: Students' Mentality, Unfair Means, Time, Standard of Success, Livelihood, etc), *Pandujyoti*, vol.23, pp.18-21.
- 6.3.5 Sarmah, R. (1992-'93) Bhougolik Manashikata Aru Bhougol Shisha (Geographical Mentality and Geography Education), *Bhougolika* vol.7, pp.1-8.
- 6.3.6 Sarmah, R. (1990) Bhougolik Dristikonar para Asomar Janajati samyasha Aru Yar Samadhan (Geographical Angle of the Ethnic Problems of Assam), *Bhougolika*, vol.5, pp.24-30.
- 6.3.7 Sarmah, R. (1989) Pyajyatar Ramyabhumi Goa (Goa: The Tourists' Playgground), *Bhougolika*, vol.4, pp.34-38.
- 6.3.8 Sarmah, R. (1988) Pralayankari Brahmaputra: Ati Alosana (Devastating Brahmaputra: A Discussion), *Sovenir, 13<sup>th</sup> Annual Conference of NEIGS, DHSK College*, Dibrugarh, pp.8-15.
- 6.3.9 Sarmah, R. (1983) Bayumandalar Itihash (History of Atmosphere), *Bigyan Jeuti*, vol.18, No.5, pp.56-58.
- 6.3.10 Sarmah, R. (1983) Bayumandalar Dusita Upadan Aru Yar Bisudhikaran (Pollutants of Atmosphere and its Treatment) *Bigyan Jeuti*, vol.18, No.3, pp.63.

## **7. BOOKS PUBLISHED (Co-Authored)-04 Nos.**

- 7.1 *North East India: Geo-Environmental Issues*, Edited by Deka, S., Eastern Book House Publisher (India), Guwahati, pp.63-96, (2008)
- 7.2 Samaj Bigyan (Social Science) 3<sup>rd</sup> Part. A text book for class VII developed by SCERT and published by Assam Textbook Production and Publication Corporation Limited, Govt. of Assam, 2005.
- 7.3 Samaj Bigyan (Social Science) 2<sup>nd</sup> Part. A text book for class VI developed by SCERT and published by Assam Textbook Production and Publication Corporation Limited, Govt. of Assam, 2004.
- 7.4 Samaj Bigyan (Social Science) 1<sup>st</sup> Part. A text book for class IV developed by SCERT and published by Assam Textbook Production and Publication Corporation Limited, Govt. of Assam, 2002.

## **8. PRESENTED RESEARCH PAPERS (SEMINAR PRESENTATIONS)- 10 Nos. International-4 Nos.**

- 8.1 Impact of bank erosion hazard on human occupance in the Jia Dhansiri river basin, Assam, India; Presented in the international workshop on geomorphological hazards organized by **International Association of Geomorphologists Working Group on Geomorphological Hazards (IAGEOMHAZ) and Centre for GeoTechnology**, Manonmaniam Sundaranar University, Tirunelveli – 627 012. Tamil Nadu, India, (21-23 July, 2010)
- 8.2 Jia Dhansiri river, Assam, India: Issues Concerning Channel Instability and Bank Erosion Hazard. Presented in the **International geographical Union Regional Conference**, held in **Brisbane (Australia) during 3-7 July 2006**.
- 8.3 Bank erosion-vis-à-vis bank line migration in the Jia Dhansiri river (North) basin, Assam, India. Presented in the Joint International Geomorphology Conference organized by the **British geomorphological Research Group**, the **International Association of Geomorphologists** and the Commission of geomorphic challenges in the 21<sup>st</sup> century in association of the **International Geographical Union Congress**, held in **Glasgow, UK**, 15-20 August 2004.
- 8.4 Downstream changes in channel form and grain size in the Jia Dhansiri river (North), Assam. Presented in the International Conference on Mountain Environment and Natural hazard Management on the occasion of *Institute of Indian geographers meet (IIG)* held in NEHU, **Shillong**, during 27-29 March

2003.

**National-06 Nos.**

- 8.5 River bank erosion and channel aggradation in the Jia Dhansiri River, Assam, India Presented in the 23<sup>rd</sup> annual conference of the *Indian Institute of Geomorphologists* (IGI) National Seminar on Global Environmental Change: Geomorphological Issues and Challenges organized by Department Geography Gauhati University, Guwahati-781 012, Assam, 20-27 November, 2010.
- 8.6 River bank erosion in the Dalgaoon Revenue Circle of Assam. Presented in the 21<sup>st</sup> annual conference of the *Indian Institute of Geomorphologists* (IGI) organized by Department Geography and Disaster Management, Tripura University, Suryamaningar-799130, Tripura, 28-30 November, 2008.
- 8.7 Jia Dhansiri River, Assam, India: A study on channel shifting and channel pattern Presented in the 19<sup>th</sup> annual conference of the *Indian Institute of Geomorphologists* (IGI) organized by Regional Centre for Field Operations and Research on Himalayan Glaciology, Department of Geology, Jammu University, 16-28<sup>th</sup> December, 2006.
- 8.8 Statistical analysis of bed pebbles of the Jia Dhansiri river (North) at Tarajuli village, Assam. Presented in the 11<sup>th</sup> annual conference of the 22<sup>nd</sup> general conference of the North east India Geographical Society (NEIGS) held in Jagiroad College, Jagiroad, 27-28 April 2002.
- 8.9 Salient features of fluvial environment of the Jia Dhansiri (North) river basin, Assam. Presented in the 11<sup>th</sup> annual conference of the *Indian Institute of Geomorphologists* (IGI) held in North Bengal University, Siliguri and Loreto College, Darjeeling, 11-13<sup>th</sup> February, 2000.
- 8.10 Some aspects of fluvial geomorphology of the Tlawng river of Mizoram, Presented in the 4<sup>th</sup> Annual conference of the *Indian Institute of Geomorphologists* (IGI) held in Shillong, 30<sup>th</sup> April to 2<sup>nd</sup> May, 1992.

**9. PARTICIPATION IN TRAINING COURSES / WORKSHOPS ETC.**

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**9.1 Training courses completed-06 Nos.**

- 9.1.1 *Orientation course* sponsored by UGC and [] organized by ASC, G.U. from 10<sup>th</sup> March to 6<sup>th</sup> April 1994.
- 9.1.2 *Refresher course* in Environmental Science (Geography) sponsored by UGC and [] organized by ASC, G.U. from 18<sup>th</sup> March to 7<sup>th</sup> April 1996.
- 9.1.3 *Refresher course* in Geography sponsored by UGC and [] organized by ASC, Jamia Millia Islamia, New Delhi from 26<sup>th</sup> September to 17<sup>th</sup> October 2001.
- 9.1.4 *Refresher course* in Geography sponsored by UGC and [] organized by ASC, G.U. from 19<sup>th</sup> January to 8<sup>th</sup> February 2004.
- 9.1.5 Two weeks training course in *Remote Sensing & Geographic Information System* conducted by RRSSC, IIT, **Kharagpur**, sponsored by **ISRO** from 16 February to 28 March 2004.
- 9.1.6 *Certificate course in computer application* from Assam Institute of Computer science, Guwahati, Assam, 2003.

**9.2 Workshops participated-05 Nos.**

- 9.2.1 Regional Workshop for Resource Material Development on Map Learning Programme organized by SSEAP, Nagaon in association with Department of Geography, Nagaon Girls' College and catalyzed and supported by RVPSP, Department of Science and Technology, Govt. of India, New Delhi and held in Nagaon Girls' College, Nagaon during 11-14 August, 2007.
- 9.2.2 *Final review workshop on Development of Text Book of Class VII in Assamese medium* [] rganized by the SCERT, Govt. of Assam during 20-25 April 2005.
- 9.2.3 Two days workshop on *Remote Sensing in Planning and Development* in the

- Assam Remote Sensing Application Centre during 30-31 May 2003.
- 9.2.4 *Final review workshop on Text Books of Classes III and IV in Assamese medium* organized by the SCERT, Govt. of Assam during 13-19 July 2003.
- 9.2.5 Three days workshop on *Remote Sensing Applications in Geography* jointly organized by Department of Geography, G.U. and NEIGS during 13-15 March 1997.

## 10. RESEARCH PROJECTS – 03 Nos.

### 10.1 Minor research projects completed-02 Nos.

| Sl. No. | Title of the project  | Duration | Funding agency       | Year of commencement | Year of completion | Budget sanctioned |
|---------|---|----------|----------------------|----------------------|--------------------|-------------------|
| 10.1.1  | Geomorphological characteristics of the Jia Dhansiri floodplain, Assam              | 2 years  | UGC, NERO, Guwahati. | 1997                 | 1999               | Rs.27,8000/-      |
| 10.1.2  | Study of soil texture characteristics of the Mora Dhansiri meander belt area, Assam | 2 years  | UGC, NERO, Guwahati  | 2004                 | April 2006         | Rs.61,000/-       |

### 10.2 Major research project completed-01 No.

| S.No.  | Title of the project  | Duration | Funding agency | Year of award | Year of completion | Budget sanctioned |
|--------|---|----------|----------------|---------------|--------------------|-------------------|
| 10.2.1 | Impact of bank erosion hazard on human occupancy in the Jia Dhansiri river basin, Assam | 2 years  | UGC, New Delhi | May 2006      | April 2008         | Rs.6,25,800/-     |

### 10.3 Major research project ongoing-01 No.

| S.No.  | Title of the project   | Duration | Funding agency | Year of award  | Year of completion | Budget sanctioned |
|--------|--|----------|----------------|----------------|--------------------|-------------------|
| 10.3.1 | Estimation of suspended sediment yield from the Mora Dhansiri River catchments of Darrang district of Assam. | 3 years  | UGC, New Delhi | February, 2009 | February, 2012     | Rs.8,95,300.00    |

## 11. ACADEMIC ORGANISATIONS / COMMITTEES INVOLVED - 07 Nos.

- 11.1 Life member (Membership No. L-1998), **Indian Society of Remote Sensing (ISRS)**, Dehra Dun.

- 11.2 Life member (Membership No. L-252), **Indian Institute of Geomorphologists (IGI)**, Allahabad.
- 11.3 Life member (Membership No. L-141) and Treasurer, **North East India Geographical Society (NEIGS)**, Guwahati.
- 11.4 Life member (Membership No. Nil), and Member, Editorial board, **Goa Association of Geographers (GAG)**, Guwahati.
- 11.5 Member, **Committee of courses and studies (CCS) in Geography** for undergraduate level since 2008
- 11.6 Member, Committee of courses and studies in **Environmental Science** for undergraduate level since 2008

**12. ORGANIZATION OF SEMINAR / WORKSHOP / SHORT TERM COURSES**

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- 12.1 Organised the Annual Academic Session of the North East India Geographical Society (NEIGS) on 9 February 2008 (Worked in the capacity of Organizing Secretary)
- 12.2 Organised three four batches (4 Nos.) of certificate course on “GPS for Micro Level Land Survey” sponsored by UGC and recognized by GU in the capacity of Coordinator. Presently one batch is running.

**13. ENGAGEMENT IN CORPORATE LIFE OF THE COLLEGE**

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- Working as Member, College Governing Body, Pandu College, Pandu, Guwahati-12
- 13.1 Worked as Superintendent of Pandu College Boys’ Hostel since Novenmer, 2004 to April 2010 and Girls’ Hostel from November, 2004 to August, 2008.
- 13.2 Working as Convener, Pandu College Research Council, Pandu College, Pandu, Guwahati-12 since February, 2009
- 13.3 Worked as coordinator of Research, Consultancy and extension Sub-committee for preparation of the RAR for NAAC’s Assessment, 2009
- 13.4 Worked as member of the committee for preparation of the Self Study Report (SSR) for NAAC’s Assessment, 2004.
- 13.5 Working as member of the Internal Quality Assurance Cell (IQAC) of the college since 2005.
- 13.6 Working as member of the Examination Committee of GU Degree and HS examinations for the session 2009-‘10
- 13.7 Has been a member of the Prospectus committees of the college during 2004-2005, 2006-2007, and 2007-‘08.
- 13.8 Worked as a member of the Purchase Committee of the college during 2006-2007
- 13.9 Working as member of the “Construction Committee”, “Canteen Committee” and “Library Committee” of the college in the sessions 2007-2008, 2008-2009, 2009-2010.
- 13.10 Worked as Assistant Zonal Officer, Degree Part-I (Old) Science Examination 2005 and member, Centre Committee (Examination Committee) of AHSEC and GU, 1997.

**14. ACADEMIC PLANNING UPTO DECEMBER 2011**

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- To publish a research paper in international journals
- 14.1 To complete the UGC awarded Major Research Project
- 14.2 To carry out other research activities.

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