

Geo-Environmental Issues of the New Millennium

**Sustainable
Planning
Perspectives**

Editor in Chief

Smt. Madhumita Basu

Associate Editors

Dr. Ayan Das Gupta

Dr. Biraj Kanti Mondal

Dr. Rupam Kumar Dutta

Dr. Deepa Bhattacharyya

*GEO-ENVIRONMENTAL ISSUES OF THE NEW MILLENNIUM—
SUSTAINABLE PLANNING PERSPECTIVE*

A Collection of Articles

Edited by Madhumita Basu

Published by Sudhangshu Sekhar Dey, **Dey's Publishing**

13 Bankim Chatterjee Street, Kolkata 700 073

Phone : (033) 2241 2330, (033) 2219 7920, (033) 2219 2041

e-mail : deyspublishing@hotmail.com

web : www.deyspublishing.com

₹ 700.00

ISBN : 978-93-98377-16-3

First published June, **2018**

Cover designed by
Mr. Debabrata Ghosh

Printed in India by Subhas Chandra Dey
B C D Offset
13 Bankim Chatterjee Street
Kolkata 700 073

Controversies Related to Health Educational Planning

- Disparity in Education and Health Sector indicating Imbalanced Sustainable Socio-economic Development of the District South 245 Parganas, West Bengal 305
—*Sanjukta Mukherjee & Deepshikha Mutsundi*
- Caesarean Section Devlivery In India : Findings from Two Nationally Representative Sample Survey 322
—*Shewli Shabnam*
- The Role of Proper Nutrition as A Strong Determinant 346
—*Tonuka Dey*

Automated Mapping and Facility Management

- Geoinformatics Based Technics for the Study of Spatialization of Urban Heat Island and Micro-Climatic Region in Asansol Durgapur Development Authority, West Bengal 361
—*Koyel Gupta, Anindita Dey & Biraj Kanti Mondal*
- An Analysis of the Spatial Flood Vulnerability Index (SFVI) of the Different Blocks of the Erstwhile Jalpaiguri District of the West Bengal, India 375
—*Maitrayee Das*

Threats Coherent to Disasters and Mitigation Policies

- Problem of Ganga-Bhagirathi River Bank Erosion in Jangipur Sub-Divison of Murshidabad District, Wes Bengal 395
—*Debika Ghosh*
- Physical Environmental Problems and Sustainable Approaches A Caes Study of Uttarkashi-Gangotri Area of Bhagirathi Basin 404
—*Dr. Deepa Bhattacharyya*
- Hazard and Risk Related to Landslides in Darjeeling Himalayan Region : A Geographical Perspective 418
—*Samrat Podder, Dr. Shasanka Kumar Gayen*

Geoinformatics based techniques for the Study of Spatialization of Urban Heat Island and Micro-climatic Region in Asansol Durgapur Development Authority, West Bengal

Koyel Gupta, Anindita Dey and Biraj Kanti Mondal

Introduction

Global warming becomes a prime issue for the researcher as well as for the common people and the increasing trend of temperature as a result of the human intervention gains additional interest of the researchers. Temperature related study is very important part in remote sensing in our present scenario, due to global warming, the surface temperature and air temperature both are increasing simultaneously in urban areas. The earth releases its temperature all over its surface but the urban centres are releasing much more heat than other places. This temperature increase resulted due to the large scale absorption of solar radiation and blockage of reflected radiation by the building structure. This change of temperature is due to lot of industries, the use of automobiles, dense settlements, usage of air-conditioners and the lack of vegetation.

Now a day, there has been a lot of interest to estimate the Land Surface Temperatures in urban areas as is testified by the voluminous literatures from various national and international journals. The first documentation of urban temperature occurs in 1818 when Luke Woward's ground breaking study of London's climate found 'an artificial excess