

Suitability of Groundwater Quality for Irrigation Use: A Case Study of Basti District (U.P.) India

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Abstract : *The agricultural sector faces increasing pressure to adopt sustainable practices, with water quality being a crucial factor influencing plant growth and soil health. This study assesses groundwater quality for irrigation suitability in the Basti district's aquifer, focusing on several key water quality indices. Agriculture is the district's primary occupation, with over 40 per cent of the workforce engaged in cultivation and 70.78 per cent of the total area under cultivation. Despite the district's significant groundwater resources, technological advancements in groundwater utilization are lacking. In the 2021-22 period, only 65.67 per cent of the gross annual recharge was used for various needs, indicating considerable potential for expanding groundwater use in irrigation.*

Utilizing data from the Central Ground Water Board's web portal (2019-2022), the analysis covers total dissolved solids, Sodium Absorption Ratio (SAR), and various ions such as SO_4^- , Ca^{++} , Cl^- , HCO_3^- , and Na^{++} , along with Electrical Conductivity and pH levels. Correlations between Electrical Conductivity and these constituents reveal significant associations. The findings indicate that out of 14 blocks in the district, groundwater quality in nine blocks is suitable for irrigation, supporting sensitive and semi-tolerant crops. Four blocks exhibit moderate quality, while one block has water quality beyond recommended limits, making it suitable for tolerant crop varieties with proper treatment. Thus, with improved technology and precise water quality management, the district's groundwater could significantly enhance agricultural sustainability in the region.

Key Words: *Groundwater Quality, Electrical Conductivity, Sodium Adsorption Ratio (SAR), Pearson Correlation, US Salinity Diagram, Irrigation Use*

Socio-Demographic and Economic Conditions of the Malasar Tribe in Pollachi Division, Anamalai Tiger Reserve

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Abstract : *This research investigates the socio-demographic and economic conditions of the Malasar tribal community residing in the Pollachi Division of the Annamalai Tiger Reserve, Tamil Nadu. Adopting a descriptive research design, the study integrates both primary and secondary data sources. The population sample comprises households from three key Malasar settlements-Kozhikamuthi, Sarkarpathy, and Palaginar. Data were collected through direct household surveys using a pre-tested and structured questionnaire, developed following a preliminary pilot study. One representative from each household provided detailed information on age, gender, education, occupation, income, housing type, and family composition. The socio-economic status of households was assessed using the Modified Kuppaswamy Scale (2023), which evaluates education, occupation of the household head, and total monthly income. Findings indicate that a substantial portion of the community falls within the lower-middle and upper-lower socio-economic strata, with notable inter-settlement variations. Kozhikamuthi exhibited relatively favorable socio-economic indicators, while Sarkarpathy and Palaginar reflected higher levels of economic vulnerability. The majority of the population is engaged in agricultural and unskilled labor, and household incomes remain significantly below national rural averages. The study underscores persistent socio-economic challenges despite some advancement in literacy and access to government welfare schemes. It concludes with a call for policy-driven interventions aimed at improving educational access, expanding livelihood opportunities, and ensuring sustainable development for the Malasar tribe.*

Key Words: *Malasar Tribe, Socio-demographic Profile, Socio-economic Status, Anamalai Tiger Reserve, Tribal Communities, Livelihood Patterns*

In Search of the Privileged Communities among the Scheduled Caste Population in West Bengal

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Abstract : *India is a mosaic of various castes, sects and religions. A large number of Scheduled Caste (SC) population is within the total population in India. Among the states, West Bengal accounts for the third highest percentage of the Scheduled Caste population after Punjab and Himachal Pradesh. There are many sub-castes among the Scheduled Caste and it is common throughout the states. There are 60 sub-castes in West Bengal, of which over 85 per cent Scheduled Caste population is from only 17 sub-castes. These sub-castes are Rajbanshi, Hari, Dhoba, Dom Namasudsa, Bauri, Chamar, Jalia Kaibartta Bagdi, Poundra, Bauri, Chamar, Jalia Kaibartta, Sunri, Mal, Malo, Kaora and Tiyyar, Chain, Lohar. Various provisions are enshrined in the Indian constitution for the socio-economic development of these populations, but some sections of the population are getting more benefits than others. In this paper, secondary data have been used and analyzed with the help of bar graphs and the male-female literacy disparity index. The literacy rate, female literacy rate, percentage of graduates, percentage of female graduates, percentage of 20-39 age-group graduates and percentage of non-farm employment are observed very high among Sunri, Namsudra, Dhoba, Pod and Jalia Kaibartta in comparison to other sub-castes. The sub-castes like Sunri, Pod, Namasudra, Dhoba are the privileged communities among the Scheduled Caste. This paper tries to search for privileged communities among the major sub-castes of Scheduled Caste with the help of educational and occupational status parameters.*

Key Words: *Composite Score, down trodden, Disparity Index, Non-farm Employment, Occupational Status*

Where is the Walking Space? Sidewalk Walkability Along Jessore Road in Kolkata

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Abstract : *Walking is one of the most important modes of transportation, especially for short distances or the beginning and end of journeys by public transport. Walkability, simply put is the degree to which the built environment supports walking. Sidewalks must be properly maintained to facilitate pedestrian mobility. This paper focuses on studying the walkability of the sidewalks along a stretch of about 1 kilometer of Jessore Road in Kolkata, divided into four stretches. The study begins with a general thematic analysis of Social Media Data on Sidewalk Walkability in Kolkata using NVivo Software, followed by a comparison of the degree of hindrances to mobility in the study area. Next, the missing and unusable segments for each of the stretches have been mapped showing zones hostile to pedestrian movement, followed by an analysis of user satisfaction and general walkability of the sidewalks in the study area using the Walkability Index. The results show that the problem of sidewalk encroachment and obstructions is common for the entire city and some preventive steps, though taken have not been fruitful till now. The unusable and missing segments of the sidewalk, due to parking, informal residences vendors, etc. compel the pedestrians to walk on the road which becomes risky at times with a high amount of traffic. From the survey of pedestrians, lack of maintenance and continuity and modal conflicts came out to be the parameters of highest dissatisfaction, causing a lower value of the Walkability Index. Some steps for improving walkability were suggested in the end.*

Key Words: *Streets, Encroachment, Pedestrian, Satisfaction, Kolkata*

A Geographical Examination of Driver Perspectives on Impact of Traffic Congestion in Kolkata Municipal Corporation

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Abstract : *Kolkata's streets are choked with a complex mix of vehicles, exceeding the capacity of existing infrastructure and struggle to meet the city's ever-increasing travel demands. This gridlock takes a significant toll on the time, health, and well-being of those who drive across locations in the city. This study investigates to unearth the root causes and multifaceted consequences of congestion across 15 key traffic intersections on the basis of their perception. Employing a mixed-methods strategy, the data was gathered, via survey schedule and focus group discussions, from 210 respondents driving different modes of vehicles (30 respondents per mode) plying regularly through these selected Traffic Intersection Points (TIPs). Using the Garrett Ranking method and Relative Importance Index (RII), the significance of the contributing factors, their impacts and potential solutions, were evaluated. The data analysis was supplemented by statistical techniques using SPSS 26 and MS Excel and insights were provided via cartographic visualizations. Statistical analysis, including the Wilcoxon Signed-Rank Test and Pearson's correlation coefficient, were calculated to confirm the impact of congestion on travel time. Findings suggested that with the application of the "Avoid, Shift, Improve" framework, sustainable urban living can be promoted by prioritizing land use planning and technological advancements as means to lessen traffic congestion and improve the well-being of those who keep the city operational.*

Key Words: *Drivers; Kolkata Municipal Corporation; Garrett Ranking score; Relative Importance Index; Traffic Congestion; Travel time*

Unprecedented Debacle: Analyzing the Psycho-Social Impact of Bowbazar Building Collapse

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and Parama Ray Chaudhuri (Banerji)⁴**

Abstract : *Collapse of buildings in Bowbazar, West Bengal triggered by the construction of metro rail tunnel extension which marks a severe reminder of human cost associated with the developmental projects. This study delves with identifying the vulnerable population and the associated psycho-social impact of this tragedy to explore the multidimensional repercussions among the affected peoples. Interviews, focus group discussion, observational analysis has been used to assess the nature of disaster, social and psychological distress and their coping mechanism during and after the disaster. It explores that the elderly and sick population were the most vulnerable, and also many people become distressed and anxious after sudden destitute, also shedding light on intricate relationship between developmental activities and human well-being. Through explaining the psychological and social dimensions of the building collapse in Bowbazar, this study also seeks to enlighten about the interventional strategies aimed to mitigate the adverse effects in future, while also advocating for greater importance on community based planning approach.*

Key Words: *Structural Collapse, High risk, Psychosocial Disorder, Well-being, Stakeholders.*

An Investigation on the Tourist Satisfaction: A Case study of Taki Tourist Spot, Basirhat Subdivision, West Bengal

Sarmistha Roy Chowdhury

Abstract : *Taki is a weekend destination where tourists can enjoy themselves in the natural landscape on the bank of the River Ichhamati in the Sundarbans. This research article investigates the level of tourist satisfaction along with the determination of key components of tourism that attracts the tourist arrival at Taki in the Basirhat sub-division. To measure the tourism services and tourist satisfaction, a questionnaire survey was carried out, and a tourist satisfaction barometer was constructed. Random sampling was adopted for 120 participants for this study. The results revealed that most of the tourists are dissatisfied with the facilities available. According to the report, the locals are very interested in seeing the growth of the tourism industry in the area. However, it has issues such as restricted number of exceptional and good hotels with good hospitals, a limited road network, parking issues, inadequate power supplies, and so forth. The problems and prospects of tourism development in the area are also discussed in the study. This study offers suggestions to the researcher, destination managers, and policymakers on future measures that must be implemented to boost visitor satisfaction at Taki tourist spots.*

Key Words: *Taki, tourist satisfaction, tourism services, Likert scale, satisfaction barometer*

Impact of Coastal Tourism Development on the Socio-Economic Aspect of the Local Community of Digha Town & its Surrounding Villages

Aditi Bose

Abstract : *The Coastal Tourism industry of Digha is an important driver of the regional and national economy. Digha coast has witnessed a vast extensive industrial development for the last 50 years in the name of tourism, which is affecting the socio-economy of the local community of Digha and Medinipur district. This tourism industry alone manipulates numerous other MSME industries that are directly or indirectly connected with tourism. Digha has immense significance in generating employment opportunities for both semi-skilled and un-skilled poor people along with women. They can engage themselves in hotel services, transport services, security services, shops of the markets, sea-sports services, cleaning services, handicrafts making and selling, cultural activities, tour guides in sightseeing, small stalls on the beach, and numerous other tourism-related jobs. These jobs contributed to the living standard and social status of the local community. The services provided by the local people help the private businessmen and the Government corporations operate and develop the entire tourism industry, which in turn helps the Government to generate revenue in the Medinipore District. The tourism industry and the involvement of the local community with the tourism industry help each other in their economic evolution. Though the tourism industry supports the livelihood option, income and saving structure, housing standard, and daily essentials of the community, at the same time, it compromises the cultural practices of the community.*

This study focuses on the impact of coastal tourism development on the socio-economic aspect of the coastal community and commences the perception of the coastal community towards the tourism development in Digha. The study involves an extensive field survey and analysis of the data through an Excel sheet, which is the only accurate and scientific method of research to focus on the sociocultural dimension of the Coastal Community of Digha.

Key Words: *Coastal Tourism, Socio-Economy, Local Community, Digha*

Sectoral Transformation of Occupational Structure and Status of Employment: A Case Study of Serampur Subdivision of Hugli District, West Bengal

Sourav Das

Abstract : *Employment is one of the key aspects of population that offers great scope for research in the field of human geography. It is an important indicator of the economic composition of a region. The degree of employment and unemployment exhibits the signs of progress or backwardness of any region. Sectoral change and employment status are intensively correlated with each other. When a region is passing through a change of economic transformation, the status of employment of the people also changes. Employment status in primary sector leads to the higher concentration of casual labour in agricultural based activities whereas secondary sector belongs to more people employed as a regular wage or salary earning in the industrial sector and employment status in the tertiary sector deals with less concentration of casual labour; moderate concentration of salaried persons and there is a tendency for self-employment. Serampur subdivision of Hugli district has experienced a similar kind of sectoral transformation as well as a change in employment status. There is a change observed in occupational pattern both in the Hugli district and the Serampur subdivision during 1951-2011. Study reveals that the subdivision's economy is passing through a transitional phase where the nonagricultural sector has become increasingly more significant both as a source of employment and output generation also Employment status of the subdivision is mainly self-employment followed by salaried persons and casual labourers.*

Key Words: *Occupational Structure, Employment Status, Unemployment, Economy, Sectoral Transformation.*

Palmyra Palm: Future of Indian Agro-Economy Exploring the Unexplored for Employment Generation

Baisakhi Roy

Abstract : *Several cash crops have a deep impact on the Indian agro-economy. But we have neglected to exploit one cash crop that has enormous scope in the Indian agro-economy: Palmyra palm. The main products obtained from Palmyra palm, jaggery, and ethanol, can be a good substitute for jaggery from sugarcane and ethanol in the Jatropha oil. Vertical growth has the exclusive advantage for Palmyra palm, which can be grown at the roadside/ road skirting and dividers in between two-way roads. The present approach not only explores the Palmyra palm but also excavates the use of abundant abandoned road skirting and dividers for the Palmyra plantation to generate employment with a sustainable contribution to the Indian agro-economy without clinching the existing agricultural land.*

Key Words: *Palmyra palm sap, Palm Jaggery, Annual and Triannual Palmyra palm, Ethanol, Road skirts and dividers*