



Cover Page

IMPACT OF CLIMATIC HAZARDS ON FOLK CULTURE OF SOUTH BENGAL, INDIA

Dr. Md. Iqbal Sultan

Assistant Professor

Department of Geography, Gokhale Memorial Girls' College
Kolkata, West Bengal, India

Abstract: Natural hazards have caused extensive loss of life, as well as damages to physical facilities such as buildings and infrastructure, and have as a result had a detrimental impact upon the socio-economic conditions of affected communities. West Bengal, fourth most populous state of India, has been no exception as far as sufferings caused by extreme events are concerned. Southern part of the state has been suffering from frequent cyclones, floods, droughts and sometimes earthquakes and tsunami. Vulnerability scenario appears to be worsening over time in this region due to high population density and concentration of industrial and agricultural activities across the region with increasing developmental activities. Most of the studies on natural disaster in West Bengal are related to the nature of hazards, its impact on economy and society and disaster management. But one can't deny the impact of natural hazards and disasters on folk culture of different parts of South Bengal.

Keywords: Disaster, Folk Culture, Natural Hazard.

I. Introduction

The concept of 'hazard' and 'disaster' is dynamic. The study of natural hazards involves many disciplines but principally geography and other geophysical disciplines. Many scholars have tried to define it from different perspectives. John Oliver (1980, p. 3) defined disaster as a part of the environmental process, but as a phenomenon that occurs when human systems intersect with the hazard creating major "human hardship with significant damage". Peek and Mileti (2002, p. 512) see disasters produced when extreme events in the natural environment "interact [with] the natural, social and constructed environments." McEntire (2015, p. 3) defines disaster in relationship to underlying hazards but underscores that they are significant disruptive social events that require changes in routine behaviors [1,2]. From the above definitions it is clear that the concept is mainly related to nature, society and behaviour.

West Bengal is not only a populous state of India but its physiographic, climatic and cultural variation is remarkable. Southern part of the state frequently experiences some natural hazards like flood, drought, hailstorm, cyclone and sometimes earthquake and tsunami [3]. This region has also some old traditions and folk culture. Many of those are directly related to the nature particularly with natural hazard. The present study deals with the impact of natural hazards on folk culture of this region.

II. Literature survey

'Cyclone Hazards and Community Response in Coastal West Bengal: An Anthro-Historical Perspective' by Arabinda Samanta (1997) deals with the impact of cyclone hazard on society and culture of coastal people of West Bengal. Coastal belt of Bengal is a most vulnerable region because of its repeated exposure to cyclone hazards which cause severe damage to human life, property and flora. However, the residents of the region refuse to migrate elsewhere unless they are forced, or rendered completely homeless. Though social tensions do arise due to discrimination in the relief work, cyclonic disasters generally act as a social-leveller and a social cement, enabling the victims to continue to reside in the land of their deceased ancestors.

Very often archaeologists and earth scientists have simply assumed that the occurrence of extreme natural events means that they were the prime movers in cultural change without demonstrating that the latter was solely or largely dependent on the former. The overall aim of the book 'The archaeology of disasters: past and future trends' by R. Torrence and J. P. Grattan (2002) is to critically examine the role of extreme environmental events in causing cultural change. The authors have deliberately taken a sceptical point of view and have carefully examined the evidence in order to distinguish between coincidence and dependence.

Frank Furedi (2007) in his article 'The changing meaning of disaster' deals with how adverse events such as disasters are interpreted through a system of meaning provided by culture. This paper explores the changing conceptualization of adversity. It suggests that the shift from the expectation of resilience to that of vulnerability is best understood as an outcome of a changing cultural conceptualization of adversity.

'Culture and Risk: Understanding the Socio cultural Settings that Influence Risk from Natural Hazards' a synthesis Report from a Global E-Conference organised by ICIMOD and facilitated by the Mountain Forum was prepared by Kenneth Hewitt (2008).



Cover Page



The goal of the E-conference was to improve understanding of the linkages between cultural and social factors and risks from natural hazards. Participants were invited to do this through sharing and documenting concrete examples, stories, and best (or bad) practices to show how culture can affect disaster management. Participants also reflected on how to effectively bridge, or overcome, cultural differences wherever they constitute barriers to vulnerability reduction and disaster relief efforts. The main concern was to identify and evaluate the role of cultural conditions in risk reduction and disaster management.

In the article 'Cultural, ethical, and spiritual implications of natural disasters from the survivors' perspective' Shainy B Varghese (2010) has discussed how cultural, ethical, and spiritual implications of disaster depend on various factors. The impact of a disaster on a particular culture depends on the people in that culture and the strength and resilience of the culture. Disasters may slow cultural development; however, typically the customs, beliefs, and value systems remain the same even if the outward expressions of culture change. The literature also suggests that during a crisis, spirituality helps victims to cope.

The book 'Disasters in West Bengal: An Interdisciplinary Study' is edited by Tuhin K Das,

Ivy Das Gupta, Debasish Lohar and Basabi Bhattacharya (2011). In introductory chapter mainly the classification of natural hazards and a brief history of natural disaster in West Bengal have been discussed. In other chapters some case studies on different geomorphic and meteorological hazards of West Bengal have been contributed by the scholars. The authors mainly talked over the impact of natural disasters on life, identification of vulnerable regions and ex-ante and ex-post disaster issues.

Jogia, J., Kulatunga, U., Yates, G.P. and Wedawatta, G. (2014) argued that cultural factors such as social values, traditions, and attachment to a location influence community facing and responding to natural disasters. In the article 'Culture and the psychological impacts of natural disasters: Implications for disaster management and disaster mental health' they tried to find out the inter-link between culture, psychology and disaster management. This paper particularly suggests the importance of cultural competence in the planning and delivery of effective disaster mental health services. In order to address the varying circumstances of people with different cultural backgrounds, disaster mental health services must be developed in a culturally sensitive manner. Development of culturally competent disaster mental health services requires significant changes in policy making, administration, and direct service provision.

Natural Hazards and Cultural Transformations, an interdisciplinary research project of National Science Foundation (2019) deals with theories and data from a broad range of fields, including cultural anthropology, archaeology, psychology, geography, and climatology in order to compare and contrast a diverse set of populations subject to different levels of frequency and predictability of natural hazards, with special attention given to hazards that have impacted food supplies. Because the investigators have examined a set of world-wide databases to characterize hazard-related dynamics of human societies and cultures over time and space.

III. Database and Methods

The data used in this paper was collected from many books, research articles and media (both electronic and print). Some data and information have also been taken from West Bengal Disaster Management and Civil Defence Department of West Bengal. After that it has been categorised into different types of hazards and related folk cultures. Some maps and photographs have been used to substantiate the theoretical discussion.

This is an empirical research on cultural studies which is structured by an interest in the interplay between lived experience, texts or discourses and the socio-cultural context. Inductive approach has been followed which moves from specific observations to broad generalizations and aims at developing a theory. Some qualitative methods have been taken into account [4,5 & 6].

IV. About the study area

The latitudinal and longitudinal extension of this region is 21⁰25' N to 24⁰45' N and 85⁰50' E to 89⁰15' E. Total geographical area of South Bengal is almost 74018 Sq.km which includes 15 districts. Physiography of this region can be broadly divided into four parts--- Bhagirathi-Hugli Basin, low to medium high plateau, coastal plain and Gangetic delta. This region frequently experiences some seasonal climatic hazards like flood, meteorological drought, hailstorm and occasionally earthquake and tsunami. It is not only a region having physiographic diversity but cultural diversity also.



Cover Page

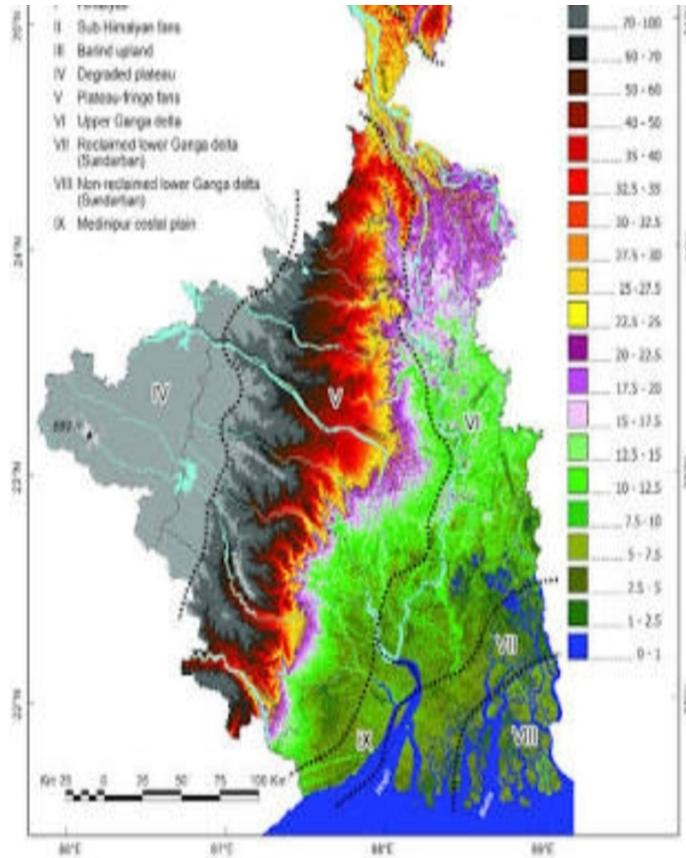


Fig.1 Broad physiographic divisions of South Bengal

(Source: Spot-heights from Survey of India. Other elevations from Shuttle Radar Topography Mission data of 2000)

V. Classification of hazards on the basis of origin and perception

On the basis of origin and perception hazards can be divided into three types---- natural, quasi-natural and man-made hazard. Natural hazards are those which are originated by natural process. There are different types of natural hazards like tectonic and geomorphic (e.g. earthquake, volcanic eruption, landslide etc.); climatic (e.g. flood, meteorological drought etc.) hazards etc. On the contrary man-made or anthropogenic hazards are created by different human activities (e.g. chemical hazards) and quasi-natural hazards are originated by nature but its severity is increased due to anthropogenic activities (e.g. desertification).

VI. Climatic hazards in South Bengal

Climatic hazards are not only influenced by the climatic factors but also some physiographic factors. These factors are terrain characteristics, mainly altitude and slope; physical properties of soil like porosity and permeability, distance from the sea, unpredictable geotectonic activities and presence of special type of vegetation like mangroves and many more. Some major climatic hazards in South Bengal are flood, meteorological drought, tropical cyclone, hailstorm (particularly norwester which is locally known as ‘Kalbaishakhi’) and flash flood.

Almost 27000 Sq.km area of different districts of South Bengal becomes flooded in every year. Most of the flood incidents occur during late monsoon (August to mid-October). Major flood affected areas are situated in Murshidabad, Burdwan, Nadia and Birbhum District. Some blocks in others districts like Hugli (Khanakul, Goghat, Arambag), East Midnapore(Egra, Moyna, Bhaganpur, Pataspur), West Midnapore (Ghatal, Daspur, Chandrakona, Sabang and Pingla) and Haora (Amta I & II, Udyanarayanpur) are highly flood-prone. Some areas remain waterlogged for few months in every year.



Cover Page

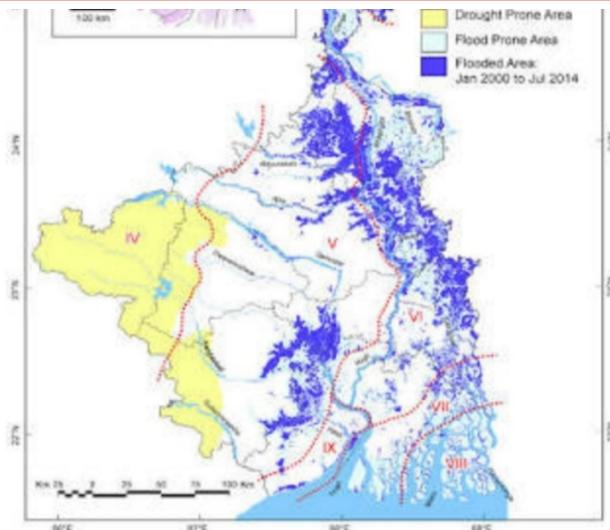


Fig. 2 Flood and drought prone areas of South Bengal

(Source: Extent of floodprone areas from DoIW-GoWB, 2014; Actually flooded areas from DFO, 2014; Drought-prone areas from WBPCB, 2009; Slope map derived from Shuttle Radar Topography Mission data of 2000).

Most of the drought prone areas are situated at the western part of Bengal. Average annual rainfall of the State is 175 cm. Purulia, some part of Jhargram, West Midnapore, West Burdwan, Birbhum and Bankura receive less amount of rainfall (100-125 cm) than the average. Sometimes Hugli river basin also faces seasonal drought due to late coming of South-West monsoon and monsoon rainfall deficiency. The region experiences seasonal drought mainly in pre-monsoon (April-May).



Fig. 3 Flood affected village

(Source: Kolkata 24X7, 19 February, 2018 & 2 July, 2019)



Fig. 4 Agricultural field becomes dried up for severe drought



Fig. 5 Rural houses destroyed by tropical cyclone

(Source: The Telegraph, 10 November, 2019)



Coastal plain and delta region are mostly affected by tropical cyclone. All blocks of South 24 Parganas, southern part of North 24 Parganas and Haora, coastal plain of East Midnapore have an experience of moderate to severe cyclone in every year. Some devastating cyclone in this region are—

Name of the cyclone	Year	People died
Bhola	1970	185
Sidr	2007	215
Rashmi	2008	85
Aila	2009	120
Fani	2019	215
Bulbul	2019	145
Amphan	2020	260

(Source: [wikipedia.org/wiki/List_of_tropical_cyclones](https://en.wikipedia.org/wiki/List_of_tropical_cyclones))

VII. Results and discussion

Culture: components and types

Edward Tylor has defined culture as the “complex whole which includes knowledge, belief, art, moral, law, custom and any other capabilities and habits acquired by man as a member of society” (Tylor, 1924) [7]. According to Swidler (1986), culture is a tool kit comprised of symbols, stories, rituals, and world-views which people may use in different situations [8]. Schein (2004) views culture as “a pattern of shared basic assumptions (beliefs) that was learned by a group as it solved its problems of external adoption and internal integration, that has worked well enough to be considered valid” [9].

There are two main components of culture: material and non-material. Material culture consists of physical or tangible creations made, used, or shared by members of society, whereas non-material culture consists of abstract and intangible human creations that influence behaviour (Ogburn, 1966 cited in Schaefer, 2009) [10]. Some examples of material culture include crafts, historic buildings, and historic locations (UNESCO, 2003; Throsby, 2001). Examples of nonmaterial culture include symbols, language, values, norms, and behaviours (Brett, 2007; Schein, 2004) [11].

Hazard and folk culture

Different folk beliefs are prevalent in different societies and cultures. In Bengali folk literature like Khanar Bachan (Khana’s verses) many traditional knowledge, rituals and beliefs have been depicted. Khana (pron. khaw-naa) is considered in literature as a lady of medieval period who authored the famous sayings which are still popular in the rural society of Bengal [12]. She is associated with many popular sayings, known as Khanar Vachan, about the weather, natural hazards like flood and earthquake; astrology, crops, productivity etc. For exmp. ‘Purbo Ashar e dakshina boy/ sei botsor bonnya hoy’ (meaning: when wind blows from South before the month of Ashar (middle of June) it indicates the probability of flood this year) or ‘Beng dake ghono ghono/bristi hobe shighro jeno’ (meaning: when the frogs croak incessantly /then rain is coming soon) [13].

There is a popular belief in different parts of the Indian subcontinent, including Bengal, that if there is no rain during the monsoon season, the frogs have to be married. Remember, frogs are an important animal for the environment, natural balance and ecosystem. The rainy season is the breeding season of this creature. In human society, marriage has a reproductive relationship. From this feeling village folks arrange the marriage of frogs by which the purpose of praying for rain is accomplished.



Cover Page



Fig. 6 &7 Frog marriage

(Source: EiSamay.Com, 12 September, 2019 &www.banglanews24.com, September 13, 2019)

Although the marriage of frogs is an ancient ritual, even in today's digital age, such ritual is celebrated with great enthusiasm in the countryside. Some news comes to media in every year. There are various folk rhymes and folk songs related to this funny folk culture. These songs and rhymes could be heard during the wedding of the frogs. It is found mainly among the tribes and lower caste Hindus. Muslim community of some districts also arrange it. By the participation of Hindus and Muslims, frog marriage become popular many parts of the country.

Another custom is that if a virgin girl is taken to the river bank and the villagers sprinkle water on her head, then it will be rain. Actually, a smell of fertility cult is found in this practice. Land or soil is assumed as female and the rain is male. The folks believe that the barren land during the rainless period will become fertile by the drops of this water. Another ritual of rural Bengal during the summer is mud bathing. This is arranged by the villagers when the ponds become dried up due to lack of rain. Similar type of festival is found in some other states of central and western India.

The various components of culture described earlier influence how communities communicate, perceive the world and respond to disasters and emergencies. Preparedness, response to disasters, and post-crisis recovery are heavily influenced by the cultural background of affected communities (Arunotai, 2008; Kulatunga, 2011). Anthropologists have suggested that the behaviour of a community during a natural disaster can be determined more by culture than threat (Oliver-Smith, 1996). It is frequently the case that affected communities give priority to factors such as social values, religious beliefs, traditions, and attachment to a location, rather than the potential danger posed by a natural disaster [14]. For example, to propitiate the god responsible, the coastal people organise community prayers, womenfolk usually blow their conch shells in chorus whenever a cyclone seems to violent. Songs sung such occasions often entre into a collective memory of the fishing community, and, cyclone or no cyclone, invariably resort to their repeat performance while gently rowing their boats [15].



Cover Page



Fig. 8 A woman blows her 'Shankha' (conch shells) Fig. 9 Community prayer for rain whenever a cyclone seems too violent.

Courtesy: Sambad Pratidin, 8 April, 2020

Taken together, cultural factors play an essential role in determining the way people respond to stress, engage in crisis management and access disaster relief efforts. Accordingly, they may determine a community's response to natural disasters [14]. Study on coastal residents of West Bengal tends to indicate that even personal values and religious practices undergo changes in response to repeated cyclone disasters. Hindu scriptures enjoy that the front doors of a residential structure should open southward, eastward or even westward, but never northward, because dead bodies are laid to rest on funeral pyre placing their heads in northern direction. But this old tradition of house-building is now a days being questioned by young generation of the family who insists that houses should open even northward to avoid easy entry of cyclone wind [15].

Significant fact is that most of the affected people belong to downtrodden class, tribal and religious minority groups. It is known to all that the negative impact of climatic hazards is observed primarily to the marginal people particularly on their occupation, settlement and lifestyle. Folk culture and some rituals of rural Bengal are also related to these hazards. Innocent folks still believe whatever happens in nature is the 'Act of God' [16]. Of course, there is no logical or geographical explanation of such rituals and traditional beliefs. But it should be considered in respect of socio-cultural and ethnographical context. Professor Mayank Kumar rightly said "The uncertainty associated with seasons, winds, rains, etc., have caused immense anxiety among the peasantry since ancient times. The absence of scientific instruments to measure or record the meteorological features, led to the growth of a series of conjunctures based on the different permutations and combinations of those visible factors. Such observations were converted into popular sayings and practices" (Monsoon Ecologies, 2013) [17].

VIII. Concluding remarks

From the ancient times nature has controlled human culture, mainly the folk culture. Village people who are not familiar with urban culture still believe various natural elements as parts of their culture. The rituals associated with natural disasters is no exception. In conclusion it can be stated that nature and culture both are dynamic. Terrible natural disasters destroy many civilizations and cultures and sometimes it changes people and their old culture. In spite of being devastated frequently by the disasters affected peoples don't give up hope and try to come back their normal life. Most of the rituals maintain harmony with nature, it does not harm nature. It believes coexistence. That is the fundamental difference between folk culture and modern culture.



Cover Page



IX. References

1. Perry, R W., 'Defining Disaster: An Evolving Concept'; Springer international; 2018
2. Furedi, F., 'The changing meaning of disaster'; Royal Geographical Society (With the Institute of British Geographers), 2007 pp. 482-489
3. Das, T K., Das Gupta, I., Lohar, D. and Bhattacharya, B. (Eds.) Disasters in West Bengal: An Interdisciplinary Study; acb publication, 2011
4. Honko, L., 'Methods in Folk-Narrative Research: Their Status and Future'; Ethnologia Europaea 11(1), 1979 pp. 6-27
5. Pickering, M. (Ed.), Research Methods for Cultural Studies; Edinburgh University Press, 2008
6. Saukko, P., Doing Research in Cultural Studies: An Introduction to Classical and New Methodological Approaches; SAGE Publications Ltd., UK, 2003 pp. 11-33
7. Tylor, E.B., 'Primitive Culture'; 2 vols. 7th ed. New York: Brentano's; 1924 [orig. 1871].
8. Swidler, A. 'Culture in action: Symbols and strategies'; American sociological review, 1986, pp. 273-286.
9. Schein, E. H., Organizational culture and leadership (Vol. 2). John Wiley & Sons., 2004
10. Ogburn, W. F., Social change with respect to culture and original nature; BW Huebsch, Incorporated, 1922
11. Brett, J. M. Negotiating globally: How to negotiate deals, resolve disputes, and make decisions across cultural boundaries; John Wiley & Sons., 2007
12. Islam, A., 'Khana'; Banglapedia. Retrieved 28 July 2015.
13. Chowdhury, R., 'Banglar Khana ebong Krishi Unnoyon e Abohawar Purbabhas'; (A Bengali article, Khana's verses on weather prediction for agricultural development) Prothom Alo, 7 July, 2018
14. Jogia, J., Kulatunga, U., Yates, G.P. and Wedawatta, G., 'Culture and the Psychological impacts of natural disasters: Implications for disaster management and disaster mental health'; The Built and Human Environment Review, vol.- 7, 2014, p. 1-10
15. Samanta, A., 'Cyclone Hazards and Community Response in Coastal West Bengal: An Anthro-Historical Perspective'; Economy and Political Weekly, vol. 32, 1997, pp. 2424-2428
16. Hewitt, K. 'Culture and Risk: Understanding the Sociocultural Settings that Influence Risk from Natural Hazards'; a synthesis Report from a Global E-conference organised by ICIMOD and facilitated by the Mountain Forum, 2008, pp. 4-6
17. Chakraborty, S., 'Bring forth the rains! Indian folklore and tribal practices to invoke rainfall'; The Indian Express, July 2018

Filename: 18
Directory: C:\Users\DELL\Documents
Template: C:\Users\DELL\AppData\Roaming\Microsoft\Templates\Normal.dotm
Title:
Subject:
Author: Windows User
Keywords:
Comments:
Creation Date: 5/15/2021 12:19:00 PM
Change Number: 9
Last Saved On: 5/28/2021 5:51:00 PM
Last Saved By: Murali Korada
Total Editing Time: 57 Minutes
Last Printed On: 6/2/2021 5:24:00 PM
As of Last Complete Printing
Number of Pages: 8
Number of Words: 3,513 (approx.)
Number of Characters: 20,025 (approx.)