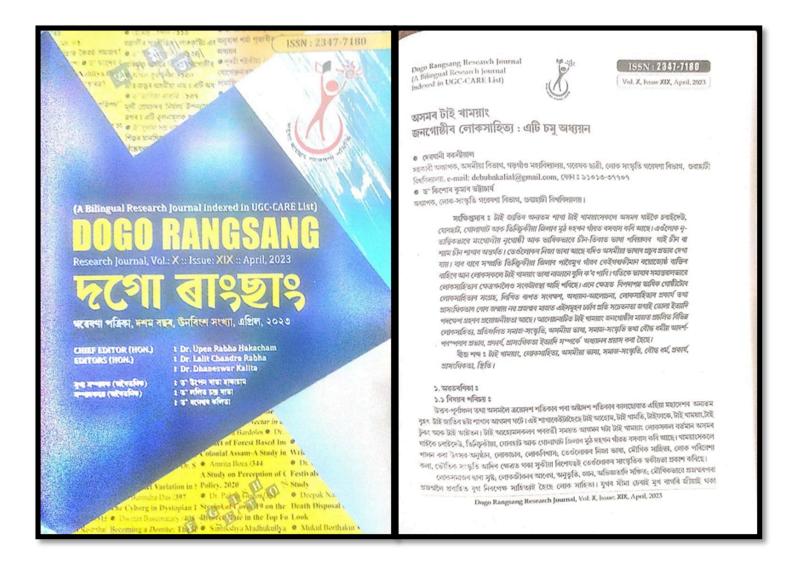


গড়গাঁও মহাবিদ্যালয় GARGAON COLLEGE

# RESEARCH PAPERS 2022-2023

# **Department of Assamese**

- a) Name of the faculty with designation: Devajani Bakalial, Assistant Professor
- b) Department: Assamese
- c) Date of issue: Vol. X, Issue XIX, April, 2023
- d) Title of the paper: Asamar Tai Khamyang janagosthir Lokasahitya: Eti adhyayan
- e) National/International: National
- f) Name of the Journal: Dogo Rangsang Research Journal
- g) Link for UGC/Scopus/WoS website for the journal: https://www.journal-dogorangsang.in/ h) ISSN: 2347-7180
- i) Link of the publication: https://gargaoncollege.ac.in/pdf/iqac/aqar-data/2022-23/Debajani.pdf



a) Name of the faculty with designation: Devajani Bakalial, Assistant Professor

- b) Department: Assamese
- c) Date of issue: Vol.11, Issue 01, January-June, 2023
- d) Title of the paper: Folksongs of The Tai Phake Tribe of Assam: A Brief Study
- e) National/International: National
- f) Name of the Journal: Swar Sindhu
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#### FOLKSONGS OF THE TAI PHAKE TRIBE OF ASSAM: A BRIEF STUDY BAKALIAL DEVAJANI

Assistant Professor, Dept. of Assamese, Gargaon College & Research Scholar, Dept. of Folklore Research, Gauhati University

#### Abstract

Abstract The Tai Phakes, one small branch of Tai ethnic groups, live in a total of nine villages in Assam. Though this ethnic group is small in population, yet it has retained its own language, script, folk literature and cultural characteristics. The Atlas of World's Languages in Danger, published by UNESCO in 2010, lists the Tai Phake language as severely endangered. The extinction of a language has an adverse impact on the folk literature and culture of the linguistic group concerned. There is a need to take steps to collect, preserve, study and discusses the folk literature of the aforesaid endangered linguistic group. Therefore, the present topic has been adopted for the purpose of studying the various genres, functions, relevance, present social status etc. of Tai Phake Folksongs. Fried studies as well as texts collected and published by various individuals and organizations have been taken as the primary data or resources. The methodology of the research paper is descriptive, analytical and functional method. Kev words: Folksone: Function: Present social status; Relevance: Tai Phake etc. Key words: Folksong; Function; Present social status; Relevance; Tai Phake etc

#### INTRODUCTION

Tai ethnic group is a large ethnic group living in the vast region of the Asia continent. Different people have suggested various opinions regarding original residence of the Tai people. These people are spread across from the Yunnan plateau of China to Malay Peninsula, from Vietnam to India.<sup>1</sup> George Abraham Grierson opines that South-Western China is the original residence and at this region only their separate race was developed.<sup>2</sup> Padmeswar Gogoi said the valley of the Huang Ho River as the initial residence of Tai people.3 According to Edward Gait Tai people are of great Tai Shan race, who are spread all over Assam. Lila Gogoi says that people of Tai family are spread from interior region of Yunnan of China to the coast of Pacific Ocean in south.5 Therefore, based on various opinions by different people regarding the original residence of Tai people a decision can be reached that China is the original residence of all the Tai people along with the North-Eastern part of India. From Thirteenth century till almost Eighteenth century initially Tai Ahom and subsequentlyTai Aitan, Tai Khamti, Tai Khamyang, Tai Turung Tai Phake people came to Assam Presently Tai Phake people are mainly living in the following nine villages -Namphake and Tipam Phake village of Dibrugarh district and Borphake, Manmomukh, Nonglai, Long Phake, Mounglang, Ningam, Phanengvillage of Tinsukia district along with several villages of Luhit, Changla etc. districts of Arunachal Pradesh. Though the ethnic group is small from population point of view but have managed to retain their distinctive cultural characteristics. Tai Phake people belong to Mongoloid ethnic group and Thai-Sinobranch of Sino-Tibetan language family. They are Hinayana or Theravada under Buddhism.

# **Department of Chemistry**

a) Name of the faculty with designation: Dr. Plaban Jyoti Sarma, Assistant Professor

b) Department: Chemistry

c) Date of issue: https://doi.org/10.1016/j.chphi.2022.100125

d)Title of paper: Structure and Stability of (CeO2) n0,±1 (n= 1-3) Clusters towards the Adsorption and Co-adsorption of CO and H2O from DFT Study

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ELSEVIER	journal homepage: www.sciencedirect.com/journal/chemical-physics-impact	

Structure and Stability of  $(CeO_2)_n^{0,\pm 1}$  (n=1-3) Clusters towards the Adsorption and Co-adsorption of CO and H2O from DFT Study

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#### ARTICLE INFO

Keywords:

Adsorption Ceria

WGSR

Fukui function M061

#### ABSTRACT

Stability of (CeO<sub>2</sub>)<sup>0,±1</sup><sub>0</sub>(n=1-3) clusters and adsorption of CO and H<sub>2</sub>O as well as co-adsorption of CO/H<sub>2</sub>O species on the same clusters are studied using M06L/def2TZVPP level of theory. We have considered this study as this fundamental investigation may be a stepping stone for future investigation of water gas shift reaction (WGSR). Global/local reactivity descriptors and natural bonding orbital (NBO) analysis are also reported for all the clusters for understanding the nature of adsorption of CO and H<sub>2</sub>O molecules. From theoretical analysis, we have explored all the possible outcomes for CO/H<sub>2</sub>O adsorption and co-adsorption on  $(CeO_2)_{n}^{0,\pm1}$  (n=1-3) clusters.

#### 1. Introduction

Over the past few decades, ceria has been considered as a fruitful catalyst for several important reactions due to its structural and electronic properties. One of the significant use of ceria is as the three-way catalysts (TWC) for the treatment of exhaust gas in automobiles which stimulates a strong research area in this field. It is used in the conversion of some poisonous gases like CO, SO2etc. to less poisonous gases like CO2, SO3 etc. [1,2]. It can also act as oxygen buffering by capturing and releasing oxygen in the redox reactions [3]. This capability is due to the rapid change in the oxidation state of cerium between +4 and +3 where the former one has been considered as the most stable state for Ce [4]. Clusters of ceria having  $Ce^{3+}$  are applicable in the catalysis field because Ce(III) has the configuration of 4f1 which is more reactive than Ce configuration (4f<sup>2</sup>5d<sup>7</sup>6s<sup>2</sup>). Moreover, thermodynamic data indicates that cerium metal is unstable in presence of oxygen [5]. With high oxygen ion mobility and the ability to fluctuate the oxidation state between +4 and +3 together with the high oxidizing power of  ${\rm Ce}^{4+},$  ceria always has a pronounced catalytic property. One of the main reactions where prominent catalytic properties of Ceria are used extensively is water gas shift reaction (WGSR).

The WGSR describes the reaction between carbon monoxide (CO) and water (H<sub>2</sub>O) to form H<sub>2</sub> and CO<sub>2</sub> gases (i.e.,  $CO + H_2O \rightarrow CO_2 + H_2$ ). An increase in the demand for H2 as well as the need of CO removal has led to the extensive use of WGSR. Ali Arab and co-workers investigated the WGSR mechanism on silver nanoclusters by using density functional theory [6]. It was observed that the minimum activation barrier is related to the CO<sub>2</sub> (ads) formation and the maximum activation barrier is related to the H2O (ads) dissociation. Several catalysts have been prepared at the industrial level, where WGSR has been carried out both at high temperature (350-500°C) as well as at low temperature (180-250 C) depending upon the catalyst used [7]. Till date mainly three different mechanisms have been proposed for the WGSR reaction namely redox, formate associative and carboxyl associative [8]. However, there is limited theoretical studies on the catalyst and the mechanism of WGSR. Previous studies were carried out on transition metal carbonyls specifically  $Fe(CO)_5$  [9],  $Ru_3(CO)_{12}$  [10] and  $Rh_6(CO)_{16}$  [11]. Nishamol Kuriakose et al investigated all the steps of mechanistic pathway with  $Fe(CO)_5$  through gas-phase quantum mechanical (QM) calculations using density functional theory (DFT) [9]. They have found that the binuclear mechanism leads to lower barriers in comparison to the mononuclear mechanism. Ling Guo and co-workershave studied the trinuclear carbonyl complexes  ${\rm Ru}_3({\rm CO})_{12}$  and mononuclear carbonyl complexes-Ru(CO)5 with the help of DFT calculations [12]. They have found that Ru3(CO)12 is much more effective than mononuclear complexes as a catalyst for the WGSR. Even though there is much information available for the use of transition metal oxides towards WGSR, the investigation of f-block metal oxide clusters for the same is limited [13].

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# Design of LNA Analogues Using a Combined Density Functional Theory and Molecular Dynamics Approach for RNA Therapeutics

Dikshita Dowerah, Mallikarjunachari V. N. Uppuladinne, Plaban J. Sarma, Nishant Biswakarma, Uddhavesh B. Sonavane, Rajendra R. Joshi, Suvendra K. Ray, Nima D. Namsa, and Ramesh Ch. Deka\*

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many of which ca In the quest to de five novel LNA an tides and establish (A), guanine (G), nucleotides of the Functional Theory their molecular-lee simulation stud	tisense therapeutics treat a w nnot be addressed with the c sign better antisense oligonuc alogues (A1-A5) for modify ing each with the five standa cytosine (C), thymine (T), a se modifications were conside r (DFT)-based quantum chem rel structural and electronic p y was done on a 14-m ) containing these modific	current drug technologie: leotide drugs, we propos ing antisense oligonuclec ard nucleic acids: adenin and uracil (U). Monome ered for a detailed Densit nical analysis to determin properties. A detailed MI per ASO (5'-CTTAG		I dame do Sta and Anime do Sta anime do Sta and

depicted LNA-level stability of the modifications, the ASO/RNA duplexes maintaining stable *Watson–Crick* base pairing preferring RNA-mimicking *A-form* duplexes. Notably, monomer MO isosurfaces for both purines and pyrimidines were majorly distributed on the nucleobase region in modifications A1 and A2 and in the bridging unit in modifications A3, A4, and A5, suggesting that A3/RNA, A4/RNA, and A5/RNA duplexes interact more with the RNase H and solvent environment. Accordingly, solvation of A3/RNA, A4/RNA, and A5/RNA duplexes was higher compared to that of LNA/ RNA, A1/RNA, and A2/RNA duplexes. This study has resulted in a successful archetype for creating advantageous nucleic acid modifications tailored for particular needs, fulfilling a useful purpose of designing novel antisense modifications, which may overcome the drawbacks and improve the pharmacokinetics of existing LNA antisense modifications.

#### 1. INTRODUCTION

Using antisense-mRNA as a medicine is a fundamentally different approach compared to treating diseases using traditional pharmaceuticals.<sup>1–3</sup> mRNA contains the set of instructions which direct cells in the human body to make proteins. Life depends on these proteins, as every function in the human body, both normal and disease-related, is carried out by one or many proteins in coordination. Human diseases are majorly the result of inappropriate protein production or disordered protein performance. Antisense-mRNA based drugs designed to bind sequence-specifically to their target mRNAs inhibit the production of disease-causing proteins and modulate their gene expressions. Unlike the small drug molecules and monoclonal antibodies, these synthetic antisense drugs are complementary to their sense-mRNAs, which take advantage of normal biological processes to suppress the production of disease-causing proteins and create a desired therapeutic effect.<sup>4–6</sup>

Antisense medications are chemically modified antisense oligonucleotides (ASOs/AONs) complementary to their target mRNAs, which bind by *Watson-Crick* base pairing, forming ASO/RNA hybrid duplexes. mRNA bound by an ASO activates the cellular endonuclease RNase H, which further cleaves the RNA strand selectively from the ASO/RNA hybrid duplexes.<sup>7,8</sup> However, due to the confined stability in biological media, the ASOs undergo rapid degradation even before duplexing, and thus, to protect and enhance their binding affinity and cellular uptake, the existing ASOs need to undergo chemical modifications to impart a valid antisense response. In the early stages, the phosphodiester backbones of the nucleotides were modified by replacing one of the nonbridging oxygen atoms with sulfur.<sup>9,10</sup> Briefly categorized under firstgeneration ASOs, methylphosphonates and phosphoramidates gained significant attention, yet phosphorothioates (PSs) were the most successful to induce the RNase H functions.<sup>11–13</sup> The first antisense drug marketed under the brand name "Vitravene" (ISIS-2922) approved by the FDA in 1998 was a

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# **Department of English**

a) Name of the faculty with designation: Dr. Jitu Saikia, Assistant Professor

b) Department: English

c) Date of issue: 2022

**d) Title of the paper:** Unveiling Stark Reality of Hardy's Victorian Society as Reflected Through the Character of Susan in The Mayor of Casterbridge

e) National/International: National

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140 JOURNAL OF THE ASIATIC SOCIETY OF MUMBAI, ISSN: 0972-0766, Vol. XCV, No.30, 2022

#### UNVEILING STARK REALITY OF HARDY'S VICTORIAN SOCIETY AS REFLECTED THROUGH THE CHARACTER OF SUSAN IN THE MAYOR OF CASTERBRIDGE

Dr. Jitu Saikia, Department of English, Gargaon College, Simaluguri, Assam - 785686

#### Introduction

Reading Thomas Hardy's fiction is like travelling across the realm of Victorian society unfolding its various colourful layers to the traveller. The strength and beauty of Hardy's fiction is primarily rested on his art of characterization which is deepened by both women characters and rustic ones. In fact, the most significant facet in the oeuvre of Hardy's fiction is his portrayal of women characters through which one can easily have a trace of the socio-economic, socio-political and socio-familial norms of the society of his time. Reading his novels is like understanding the various prevailing sex-related issues, social bindings including marriage, the strong hold of man folk upon the society so called patriarchal hegemony and the sufferings of woman folks under these conventions in his Victorian society, so called Hardy's Wessex world. Amidst these social conventions silently crept into the Wessex life a hugely important social movement or awakening of women presently known as feminism which emerged in Hardy's England and took much attention of people and which requires a separate discussion so far realism in his novels is concerned. Moving in and around the Wessex territory Hardy observed the social life and in his writings gave vent to the feelings, cries and ambitions of the women folk living under pressure in the man ruled society.

Characterization is another determining factor in the study of realism in a literary work, in the art of which Hardy's mastery is seldom questioned. Once we open the door of memory, a large train of his great characters stand before us. Not only great male characters such as Michael Henchard, Angel Clare, Alec d'Urberville, Donald Farfrae, Clym Yeobright, Jude Fawley, Gabriel Oak, Henry Knight, Giles Winterborn, Tillotson, Troy, Jorelyn Pierston, but also female characters such as Susan, Tess, Sue, Elizabeth Jane, Eustacia, Bathsheba, Elfride, Vivietta, Grace, Marty etc. come sweeping by and inhabit our mind and heart. In Hardy the most alive of men are the creatures of intellect and the most alive of men are the creatures of passion. Passion, emotion, intellect and reasoning are all embodied in Hardy's characters. In the context of realism in characterization Harold Williams in his article The Wessex Novels of Thomas Hardy published in The North American Review, Jan, 1914 comments that Hardy's novels

"close on a great note which thrills the imagination with the poetry of an emotional truth to life."1 (quoted in North American Review)

The Mayor of Casterbridge is one of the finest novels penned by Thomas Hardy which gives a reader an access to his Victorian world. Casterbridge is Hardy's fictitious name for the capital town of Dorchester. Hardy was born and brought up in a rural background; the sights and sounds of his surroundings went through his veins, which afterwards came out in the form of writings – poetry and novels. The somber beauty of country and quaintness of peasant ways and thought penetrated his spirits and became the very ground and substance of his imagination. Commenting on the realism as implicit in his novels it is said in Encyclopaedia Britanica (Halicar - Impala) Vol- II that there is almost no passion in his work, neither the author nor his characters ever seeming able to pass beyond the state of curiosity, the most intellectually interesting of limitations, under the influence of any emotion. In his feeling for nature, curiosity sometimes seems to broaden into a more intimate communion.

"The heath, the village with its peasants, the change of every hour among the fields and on the roads of that English countryside which he has made his own – the Dorsetshire and Wiltshire "Wessex" – mean

# **Department of Geography**

a) Name of the faculty with designation: Dr. Rituraj Neog, Assistant Professor.

b) Department: Geography

c) Date of issue: https://doi.org/10.1007/s11600-022-00927-z

**d) Title of the paper:** Thermal stress and urban heat island effect in Jorhat urban environment as a result of changing land use and land cover.

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International Journal of Environmental Science and Technology https://doi.org/10.1007/s13762-022-04378-3

**ORIGINAL PAPER** 



# Monitoring land use dynamics, urban sprawl, and land surface temperature in Dimapur urban area, Nagaland, India

R. Neog<sup>1</sup>

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The Author(s) under exclusive licence to Iranian Society of Environmentalists (IRSEN) and Science and Research Branch, Islamic Azad University 2022

#### Abstract

The study's primary objective is to measure the rate and pattern of land use and land cover changes in Dimapur city, as well as their impact on land surface temperature (LST). Landsat TM (Thematic mapper) data from 2000 and 2007, as well as Landsat OLI (Operational land imager) and TIR (Thermal infrared sensor) data from 2020, were used in the study. In order to examine the city's population patterns, the study was supplemented using LandScan global gridded data for the pre-defined years (1KM × 1KM). The urban sprawl index (USI) was employed to detect urban sprawl in Dimapur, while the urban thermal field variant index (UTFVI) was utilized to investigate surface urban heat islands. Dimapur's built environment grew from 14.74 percent to 39.36 percent between 2000 and 2020, while green spaces shrank from 33.21 percent to 19.44 percent. Between 2000 and 2007, the USI value increased from 0.0037 to 0.0055, indicating substantial urban sprawl in cecent years. Between 2000 and 2020, these changes resulted in an increase in mean LST of 17.27 °C (winter) and 26.86 °C (summer) to 19.01 °C (winter) and 31.43 °C (summer). According to UTFVI, the number of locations classified as ecologically bad or worse in Dimapur has increased in recent years. The larger positive correlation between population and built-up areas and LST, as well as the stronger negative correlation between vegetation and population and LST, support the impact of population-induced land use and land cover change on LST development in Dimapur area.

Keywords Built-up land · Correlation · Population growth · Urban expansion · Urban heat Island

#### Introduction

The global population is growing very hastily, causing rapid urbanization. Rapid urbanization and urban growth have become a challenge for global sustainability (Carneiro et al 2021). As of 2016, the global urban population shares almost 54.5 percent of the world's population (Rousta et al. 2018). It is expected that about 66 percent of the world's population will be concentrated in urban areas by the middle of the twentieth century (Jaber 2018; Hosseini et al. 2016). The process of urbanization is very rapid in developing countries compared to developed nations (Chatterjee and Majumdar 2022). Though urbanization is considered the most common phenomenon around the globe, it has become much more intense in developing nations of the world due to rapid economic growth (ESSAP 1993). The population and economic growth are chiefly responsible for

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the rapid rate of urbanization (Hua and Ping 2018). The rate of urbanization is much more rapid in Asian countries, most specifically in the South Asian nations. According to UN estimates, Asian cities will accommodate nearly half of the global urban population by 2020, with the addition of 1.5 billion people to urban areas (Gohain et al. 2020). The urban areas of developing countries, particularly those in South East Asia, have seen remarkable growth in terms of both spatial extent and population (Gohain et al. 2020). The population of urban areas, mostly in developing nations, is growing chiefly because of large-scale immigration from rural areas in search of employment opportunities (Dutta et al. 2021; Naikoo et al. 2020). Such urbanization is bringing remarkable changes in the overall environment of the urban areas. One of the chief impacts of urbanization is the rapid land use and land cover change of urban areas. Furthermore, the urbanization process is also responsible for urban sprawl, which is associated with a wide range of interrelated issues in society, the environment, and public health (Carneiro et al. 2021). The physical expansion of cities by urban sprawl dominates the process of rapid land use and land cover change. The change of land use and land cover from green areas to build environments modifies the urban thermal condition. The change of land use

Springer

# **Department of Geography**

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b) Department: Geography

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f) Name of the Journal: Acta Geophysica

g)Link for UGC/Scopus/WoS website for the journal: https://www.scopus.com/sourceid/4000148503 h) ISSN : 1735-2630

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Acta Geophysica (2022) 70:2771-2783 https://doi.org/10.1007/s11600-022-00927-z

**RESEARCH ARTICLE - ANTHROPOGENIC GEOHAZARDS** 

Chuck fo

### Thermal stress and urban heat island effect in Jorhat urban environment as a result of changing land use and land cover

Rituraj Neog<sup>1</sup> · Jiten Hazarika<sup>2</sup>

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#### Abstract

The objective of the study is to determine the impact of land use and land cover (LULC) change on land surface temperature (LST) and thermal stress at Jorhat from 2009 to 2021. The experiment used Landsat TM (Thematic Mapper) for 2009 and OLI (Operational Land Imager)/TIRS (Thermal Infrared Sensor) for 2021 from earth.explorer.usgs.gov. Landsat data were employed to calculate the LST and LULC changes. Utilizing UTFVI (urban thermal field variance index), thermal stress over the ground surface has been computed. Thermal discomfort is computed simultaneously using the relative strain index (RSI) and net effective temperature (NET) index. Jorhat evidenced significant rise in built-up land to 281.25 hectares with reduced vegetation cover of 480.96 hectares from 2009 to 2021. These modifications caused significant rises in LST of 4.28 °C, 2.33 °C and 3.01 °C in September, October and December from 2009 to 2021. According to UTFVI from 2009 to 2021, Jorhat experienced declining ecologically excellent area with a rising proportion of ecologically worse land. In September and October 2009, the Jorhat city had just 10 days of bioclimatic discomfort and 19 days in October 2021, as opposed to just 9 days in 2009. Compared to 2009, there are now 6 and 4 days in December 2021 that are classified as warm or slightly hot, respectively. This leads to the conclusion that Jorhat's thermal condition is significantly impacted by changes in land use and land cover.

Keywords Land use and land cover · LST · UTFVI · RSI and NET

#### Introduction

The global population is increasing very rapidly since industrialization. As per the estimate of united nation, global urban population is projected to become 68 percent from the current scenario of 55 percent with current pace of urbanization (United nation 2018). There is an increasing global pressure of population to expand its demand for more accommodations, food, agricultural production and shelter (Imran et al. 2021). Subsequently, land cover is changing rapidly in order to meet the demands of global population,

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which ultimately replacing vegetation to impervious surface due to human activities and that finally contributing to climate change (Igun and Williams 2018; Nzoiwu et al. 2017). The change of land use and land cover is more noticeable over urban areas of the world. Change of land use and land cover plays a significant role on changing the regional climate (Jahan et al. 2021; Nagarajan and Basil 2014; Grimm et al. 2008). Conversion of natural green vegetation to urban built-up land is mainly responsible for change in regional climate (Argueso et al. 2013; Imran et al. 2018, 2019a, b). The urbanization induced concretization replace natural surface with impermeable concrete structure such as industrial and residential buildings, parking knots and impervious roads (Babalola and Akinsanola 2016; Patra et al. 2018). This urban conversion leads to lower albedo and higher absorption of heat ultimately leads to higher land surface temperature (LST) in urban areas. Thus, LST rises over the cities due to the effect of built environment and concrete structure (Neog 2022). The higher LST in the urban areas comparing to the nearby areas is known as urban heat island

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# **Department of History**

a) Name of the faculty with designation: Dr. Raktim Patar, Assistant Professor.

b) Department: History

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d) Title of the paper: Kobai System Among the Tiwa of Northeast India: A Study on their Matrilineal System.

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g) Link for UGC/Scopus/WoS website for the journal:

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Every society incorporates some basic components in its system of reckoning kinship: family, marriage, post marital residence to regulate the behaviors of its members. G.P. Murdock (1981) recorded 565 matrilineal systems, and in India, we have three known matrilineal societies i.e., the Khasis and Garos of Meghalaya in the North-East and the Nayars or the Nairs of Kerela. The matrilineal societies of North East India have been widely studied and discussed in various series from time to time. However, the Tiwa especially the Hill dwellers who has been practicing matrilineal descent and matrilocal marriage has not received much attention. In the following paragraphs I will be discussing the general features of the Tiwa society such as family, kinship, marriage and descent system to give a overview of the Tiwa matrilineal system and the trajectory of changes that has come to their society.

The Tiwa are an Indo-Mongoloid tribe and descendent of the Bodo family of the Tibeto-Burman branch of the Sino-Tibetan speech family. Settled in Morigaon, Nagaon, Kamrup, Jorhat, Dhemaji and Karbi Anglong districts of Assam and Ri-Bhoi district of Meghalaya, the Tiwa have long been referred to as "Lalung" or "Laloo" by other neighboring groups (Khasi-Jaintia, Karbi) (Patar, 2021). The *Burnnjis* (Ahom chronicles) used terms like 'Lalung', 'Garo' and 'Dantiyalias' interchangeably to denote the Tiwa people (Bhuyan 2001). The people in question however, refer to themselves as Tiwa. They are divided into two socio-cultural groups, those settled in the plains who speak Assamese and follow a patrilineal descent system bearing Assamese patronyms, and those residing in the hills, speaking a Tibeto-Burman language of the Bodo-Garo group, that follow a matrilineal descent system. Thus the Tiwa follow a bilateral descent system which recognizes that descent may be traced from either the *Please cite this article as: Ptatar R.*, The Kobai System among the Tiwa of North East India: A Study on their Matrilineal System - *Antrowm J. of Anthropology* 19-11 (2023) *pp.* 513-518.

# **Department of History**

a) Name of the faculty with designation: Dr. Raktim Patar, Assistant Professor.

b) Department: History

c) Date of issue: 2022

d) Title of the paper: A Short Account of Women Martyrs of Assam in the Indian Freedom Struggle

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# Man and Society A Journal of North-East Studies

Man and Society, Journal of North-East Studies, is

devoted to publication of professional and academic articles in the social, political, economic, anthropology and security related issues of North-East India. It is published bianually every summer and winter.



Published by Bhagirathi Panda for ICSSR. North Eastern Regional Centre NEHU Campus, Shillong - 793 D22, Meghalaya and Printed at Eastern Panorama Offsett, Keating Road, Shillong, Meghalaya A Short Account of Women Martyrs of Assam in the Indian Freedom Struggle Raktim Patar\*

The Indian freedom struggle was one of the biggest mass movements witnessed in the country. It saw the large scale participation of adult males, females and children from all walks of life representing various communities and regions making it a memorable event in the history of the modern world. The entire people of the country had joined the historic freedom struggle and it is because of the total resistance of the whole nation that the imperialist rule foundered upon.<sup>1</sup>

Indians seized their freedom from the yoke of British colonial rule on August 15, 1947. To accomplish such an epoch-making event, millions of Indians across undivided India, from the coast of Kerala to the mountains of Kashmir and from the remote hills of Arunachal Pradesh to the sands of Sindh, toiled hard. They suffered uncountable atrocities, took bullets on their chest, and sustained pain and injury to get our Independence. Some leaders contributed immensely to motivating the Indian masses to take up both arms as well as non-violent ways to achieve their common goal. The pages of Indian history are replete with events of glorious deeds of patriotism and sacrifice. However, thousands of patriots and numerous instances of sacrifice in different corners of the country have gone unnoticed and unrecorded.

When India gained its Independence, historians gave credit to only a few individuals despite great sacrifices of millions of freedom fighters. Ironically, some of the great heroes of our freedom struggle were termed

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# **Department of History**

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# असम के वीर नायक महाराज पृथु

- डॉ. राजश्री देवी और डॉ. रक्तिम पाटर

राजा पृथु ने कामरूप की तत्कालीन राजनीति को एक नयी दिशा दी जिसके फलस्वरूप कामरूप पर हुए तीन में से दो आक्रमणों को सफलतापूर्वक प्रतिरोध कर कामरूप को विधर्मी शासन से बचाए रखने में वे सक्षम हुए। महाराजा पृथु जैसे भारत के इतिहास की कई महत्वपूर्ण व्यक्तित्व तथा घटनाएँ जनमानस से छुपाकर रखी गयी। औपनिवेशिक इतिहासकारों ने भारत का इतिहास विकृत कर बहुत सी गलत व बनावटी जानकारियों की सहायता से इसे केवल पराजय और गुलामी के इतिहास के रूप में प्रस्तुत किया। इसके विपरीत भारतीय राजाओं की महान गौरवशाली विजय गाथाओं को पाठ्यपुस्तकों में स्थान ही नहीं दिया गया। बख्तियार खिलजी के आक्रमण के विरुद्ध कामरूप के राजा पृथु द्वारा प्रदर्शित वीरता को छुपाकर रखना इसका ही एक बड़ा उदाहरण है।

रहवीं शताब्दी का भारतीय इतिहास विदेशी आक्रांताओं विशेषकर आफगानिस्तान से आनेवाले आक्रांताओं के संदर्भ में विशेष महत्व रखता है। इस दौरान भारतवर्ष पर कई आक्रमण हुए। उत्तर भारत के अस्थिर राजनीतिक वातावरण और मुसलमान आक्रांताओं के नरसंहार तथा उत्पीइन के समय कामरूप में महाराज पृथु ने राज्य का शासनभार ग्रहण किया। इसी के साथ 12वीं शताब्दी में कामरूप की राजनीति में एक सशक्त और प्रभावशाली नाम जुड़ जाता है। किन्हीं इतिहासकारों के अनुसार राजा पृथु किरात जाति के व्यक्ति थे। यहां उल्लेखनीय है कि वर्तमान समय के असम के बोड़ो, राभा, कोच, डिमासा, तिवा, गारो आदि जनजातियों को ही उस समय किरात नाम से संबोधित किया जाता था। इतिहासकार सुनीति कुमार



चट्टोपाध्याय के अनुसार महाराज पृथु हिंदू बोड़ो जनजाति के व्यक्ति थे। यहाँ बोड़ो शब्द समग्र तिब्बत-बर्मी लोगों के लिये प्रयोग किया गया है। उन्होंने लिखा है - 'When Bakhtiyar Khalji the Turki leader who conquered western Bengal in 1203, came to Assam/ Kamrupa with an invading army suffered defeat at the hands of the Assam's ruling house which was evidently a Hindu Boro house'. दूसरी ओर इतिहासकार राजमोहन नाथ के अनुसार राजा पृथु वैद्यदेव द्वारा स्थापित देव वंश के शासक थे। वैद्यदेव कामरूप के सिंहासन पर सन 1130 से सन 1150 तक अधिष्ठित थे। उनके परवर्ती राजाओं के क्रमानुसार नाम थे - राइरीदेव, भास्करदेव, बल्लवदेव और पृथुदेव।

इतिहासकार राजमोहन नाथ के अनसार महाराज पथ सन 1185 से सन 1227 तक के लंबे समय के लिये कामरूप की राजगद्दी पर विराजमान थे। उत्तर गुवाहाटी की बेतना नामक जगह पर उनकी राजधानी थी। महाराज पृथु के शासनकाल में कामरूप की सीमा पूर्व में वर्तमानके दरंग जिला और पश्चिम में वर्तमान के बांग्लादेश की दिनाजपुर नामक शहर तक विस्तत थी। राजमोहन नाथ के इस मत का समर्थन नगेंद्र नारायण आचार्य भी करते हैं। आचार्य जी के अनसार महाराज पथ संभवतः वैद्यदेव अथवा बल्लवदेव के वंशज थे और 12वीं शताब्दी के अंतिम समय में उन्होंने कामरूप का शासनभार संभाला। हालाँकि विख्यात इतिहासकार कनकलाल बरुआ कहते हैं कि वैद्यदेव के साथ महाराज पृथु का कोई संबंध नहीं था और अनुमान है कि सन 1200 से सन 1228 के बीच वे कामरूप के राजा थे। इन दोनों ही मतों को ध्यान में रखें तो महाराजा पृथु के वंश का विषय थोड़ विवादित भले ही हो, परंतु उनके शासनकाल को सभी इतिहासकार निर्विवाद रूप से स्वीकार करते हैं। उनके शासनकाल में कुल तीन बार कामरूप पर मुसलमानों ने आक्रमण किया था।

## **Department of Political Science**

a) Name of the faculty with designation: Yuvaraj Gogoi, Assistant Professor

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**Book Reviews** 

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is immensely useful for social science faculty, students, scholars and teachers, policymakers, administrators, international organisations, think tanks and NGOs working in the area.

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#### Ashok Pankaj, Atul Sarma and Antora Borah (Eds.), Social Sector Development in North-East India. New Delhi: SAGE Publishing, 2021, xxiii + 404 pp, ₹1595, ISBN: 978-93-5388-532-8 (HB)

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It is seen that most books on Northeast India while depicting the diversities of the region present an essentialised linear narrative as if Northeast India lacks an internal variation and is all about tribalism, geographical remoteness, insurgency and economic backwardness. What is missed out is that there might be multiple narratives and contextualised understanding of Northeast India and that there is diversity within diversities in the region. For instance, much of the history of Sikkim is not similar to the other seven states of the region. Nor does it share the menace of ethnic insurgency that has beset other seven north-eastern states in varying degrees. Thus, linear narratives lead to what Chimamanda Ngozie Adichie has evocatively called the 'danger of a single story' (Ted, 2009). It may be noted that New Delhi's policy formulation for the Northeast India often ignores the region's rich diversities. The book under review edited by Ashok Pankaj, Atul Sarma and Antora Borah is an exception in that it rejects a one-size-fits-all approach to depict the Social Sector Development (SSD) of Northeast India. It presents Northeast India in a new light, debunking several myths that people have towards the region. It has taken note of the internal diversities of Northeast India while tracing the trajectory of SSD in the region. SSD issues of the region have not received adequate attention the way they should have. SSD has, as the book reveals, the potential to become a part of a strategic goal in that it could also give a fillip to the Act East Policy of India. Sanjib Baruah (2020) has rightly pointed out elsewhere that the name Northeast India itself and the policies towards it are a result of a series of security-oriented decisions of the post-colonial Indian state. The editors and the contributors of the book under review have tried to relocate the development perspectives on Northeast India beyond the prisms of security-centric planning and orientations.

This riveting book tries to capture the scenario of SSD in Northeast India comprehensively. It has fifteen chapters in total (including the Introduction) divided into seven different sections. The editors and the contributing authors have chosen parameters such as education, health, governance and socio-economic issues such